San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

MAR 19 2015

Helen Ordway
Alon USA – Bakersfield Refinery
6451 Rosedale Hwy.
Bakersfield, CA 93308

RE: Final - Authority to Construct / Certificate of Conformity (Significant Modification)
Facility Number: S-33 and S-3303
Project Number: S-1134224 & S-1134223

Dear Ms. Ordway:

The Air Pollution Control Officer has issued the Authority to Construct permits to Alon USA – Bakersfield Refinery for the Crude Flexibility project consisting of new and modified equipment for receiving of crude oil by rail, storage, and processing of crude oil into refined products, at 6451 Rosedale Hwy., Bakersfield, CA 93308. Enclosed are the Authority to Construct permits and a copy of the notice of final action to be published approximately three days from the date of this letter.

Notice of the District's preliminary decision to issue the Authority to Construct permits was published on October 14, 2014. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on October 14, 2014. All comments received following the District's preliminary decision on this project were considered.

Comments received by the District during the public notice period (included as Attachment K) resulted in changes detailed in the District's responses to the public comments included as Appendix L of the attached application review. These changes were minor and did not trigger additional public notification requirements.

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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4800 Enterprise Way
Modesto, CA 95356-8718
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Bakersfield, CA 93308-9725
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www.valleyair.org www.healthyairliving.com

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MAR 19 2015

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura at (661) 392-5500.

Sincerely,

Arnaud Marjollet
Director of Permit Services

AM:rcr

Enclosures

cc: Mike Tollstrup, CARB (w/enclosure) via email
cc: Gerardo C. Rios, EPA (w/enclosure) via email
cc: Elizabeth Forsyth, Earthjustice (w/enclosure) via email
cc: Wendy Park, Earthjustice (w/enclosure) via email
cc: Mike Molenaar, (w/enclosure) via email

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-8-26 **ISSUANCE DATE:** 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF CRUDE UNIT #10 INCLUDING 209 MMBTU/HR GAS FIRED HEATER 10-H1 WITH WATER SPRAY NOZZLES FOR FLUE GAS COOLING AND SELECTIVE CATALYTIC REDUCTION (SCR); 65 MMBTU/HR GAS FIRED HEATER 10-H2, CRUDE TOWER 10-V1, DIESEL/AGO STRIPPER 10-V2A/B, CRUDE OFF GAS COMPRESSOR 10-C2, DESALTER AND MISC. HEAT EXCHANGERS, PUMPS, PIPING, DRUMS, FIN FANS, AND VESSELS - AREA 1: MODIFICATIONS TO ATMOSPHERIC CRUDE TOWER (10-V1), DIESEL STRIPPER TOWER (10-V2A); NEW JET TREATER; NEW CRUDE PRE-FLASH TOWER; ADDITIONAL AND/OR REPLACEMENT EXCHANGERS, FIN FANS, AND PUMPS; AND PIPING MODIFICATIONS

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit
5. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-8-26 : Mar 19 2015 8:31AM – RINALDIR Joint Inspection Required with RINALDIR

6. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

9. Fugitive volatile organic compound (VOC) emissions shall not exceed 8.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Valves and connectors subject to Rule 4455 associated with heat exchangers 10-E34A/B shall also be subject to the requirements of Rule 4455 for any leak in excess of 100 ppmv above background when measured according to Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Permittee shall meet all applicable requirements of NSPS Subparts A, J, and GGGa. [District Rule 4001] Federally Enforceable Through Title V Permit

14. Firing rate of heater 10-H2 shall not exceed 65.0 MMBtu/hr [District Rules 2201& 4306] Federally Enforceable Through Title V Permit

15. Continuous records of heater 10-H2's firing rate, including volumetric fuel consumption rate (corrected for temperature) and hhv of fuel burned shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

16. All sampling connections, open ended valves or lines shall be equipped with two closed valves or be capped with blind flanges or threaded plugs except during actual use [District Rule 4001] Federally Enforceable Through Title V Permit

17. Except during start-up and shutdown, crude unit heater 10-H1 emission rate shall not exceed NOx (as NO2): 0.006 lb/MMBtu or 5 ppmvd @ 3% O2, CO: 270 ppmvd @ 3% O2, and NH3: 10 ppmvd @ 3% O2. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. During start-up and shutdown, crude unit heater 10-H1 emission rate shall not exceed NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, and CO: 270 ppmvd @ 3% O2. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. Crude unit heater 10-H2 emission rate shall not exceed NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, and CO: 290 ppmvd @ 3% O2. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

20. The total duration of start-up time for heater 10-H1 shall not exceed 2.0 hours per day [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. The total duration of shutdown time for heater 10-H1 shall not exceed 2.0 hours per day. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

22. The ammonia (NH3) emissions from heater 10-H1 shall not exceed 10 ppmvd @ 3% O2. [District Rule 4102] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

24. The permittee shall record the daily startup and shutdown duration times of the heater 10-H1 [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. Source testing to measure NOx and CO emissions from Heater 10-H1 and Heater 10-H2 shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

27. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306 (amended October 16, 2008). [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

28. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

29. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

30. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, 4320 and 4351] Federally Enforceable Through Title V Permit

31. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

32. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

33. Source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

34. A Continuous Emissions Monitoring System shall be in place and operating for heater 10-H1. NOX emissions in ppmv (as NO2 corrected to 3% O2) and O2 concentrations must be recorded continuously. The CEM shall meet the requirements of 40 CFR parts 60 and 75 and shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [District Rules 4305, 4306, 4320, and 1080] Federally Enforceable Through Title V Permit

35. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit

36. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

37. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Source Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

38. Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit

39. Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

40. The owner/operator shall perform a relative accuracy test audit (RATA) as specified by 40 CFR Part 60, Appendix F, 5.1 l, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit

41. The permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals, data and magnitude of excess emissions, nature and cause of excess emissions (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting shall correspond to the averaging period for each respective emission standard; applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [District Rule 1080] Federally Enforceable Through Title V Permit

42. The stack concentration of NOx (as NO2), CO, and O2 for unit 10-H2 shall be measured at least on a monthly basis using District approved portable analyzers. [District Rules 4305, 4306, and 4320]] Federally Enforceable Through Title V Permit

43. The stack concentration of CO and O2 shall be measured at least on a monthly basis using District approved portable analyzers. At the time of the CO measurement, the stack concentration of NOx shall also be measured; using either the NOx CEM or District approved portable analyzer. If the NOx CEM is used, the O2 measurement from the CEM shall be used for any needed corrections to the NOx measurement, and the CO measurement must be taken in the same area of the stack as the CEM sample. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

44. If the CO concentrations, as measured by the portable analyzer, exceed the allowable emissions rate, the permittee shall notify the District and take corrective action within one (1) hour after detection. If the portable analyzer readings continue to exceed the allowable emissions rate, the permittee shall conduct an emissions test within 60 days, utilizing District-approved test methods, to demonstrate compliance with the applicable emissions limits. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

45. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2, the O2 concentration, and method of NOx measurement (CEM or portable analyzer). The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. These records shall be retained at the facility for a period of no less than 5 years and shall be made available for District inspection upon request. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

46. For crude unit heater 10-H1, the permittee shall monitor and record the stack concentration of ammonia (NH3) at least once during each month in which a source test is not performed. NH3 monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within one day of restarting the unit unless monitoring has been performed within the last month. [District Rule 4102]

CONDITIONS CONTINUE ON NEXT PAGE

47. Ammonia (NH3) emission readings shall be converted to ppmvd @ 3% O2. [District Rule 4102]

48. The permittee shall maintain records of: (1) the date and time of ammonia (NH3) measurements, (2) the O2 concentration in percent by volume and the measured NH3 concentrations corrected to 3% O2, (3) the method of determining the NH3 emission concentration, and (4) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rule 4102]

49. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rules 2201 and 4351] Federally Enforceable Through Title V Permit

50. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

51. The following conditions must be met for representative unit(s) to be used to test for NOx limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

52. All units in a group for which representative units are source for NOx emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

53. All units in a group for which representative units are source tested for NOx emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

54. The number of representative units source tested for NOx emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

55. The portable analyzer shall be calibrated prior to each use with a two-point calibration method (zero and span). Calibration shall be performed with certified calibration gases. [District Rule 2520] Federally Enforceable Through Title V Permit

56. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit

57. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520] Federally Enforceable Through Title V Permit

58. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201 and 4301] Federally Enforceable Through Title V Permit

59. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520 and 4301] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

60. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520] Federally Enforceable Through Title V Permit

61. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520] Federally Enforceable Through Title V Permit

62. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520] Federally Enforceable Through Title V Permit

63. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

64. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 4801] Federally Enforceable Through Title V Permit

65. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rule 4301] Federally Enforceable Through Title V Permit

66. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit

67. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit

68. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

69. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

70. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

71. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

72. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

73. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

74. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

75. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

76. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit

77. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit

78. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit

79. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit

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80. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

81. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

82. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

83. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

84. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

85. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit

86. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit

87. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit

88. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit

89. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit

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90. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit

91. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

92. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit

93. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit

94. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit

95. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit

96. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit

97. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit

98. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit

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99. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit

100. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit

101. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

102. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4455] Federally Enforceable Through Title V Permit

103. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGGa. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484a. [40 CFR 60.592a(c)] Federally Enforceable Through Title V Permit

104. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and (f) and 40 CFR 60.482-2a(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 2,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2a(a) and (b)] Federally Enforceable Through Title V Permit

105. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)] Federally Enforceable Through Title V Permit

106. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)] Federally Enforceable Through Title V Permit

107. Any PLLS that is designated, as described in 40 CFR 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e)] Federally Enforceable Through Title V Permit

108. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)] Federally Enforceable Through Title V Permit

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109. Any pump in PLLS that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(d)(4) through (6) if: 1). The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2a(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)] Federally Enforceable Through Title V Permit

110. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482a-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)] Federally Enforceable Through Title V Permit

111. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(a)] Federally Enforceable Through Title V Permit

112. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9a. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(b)] Federally Enforceable Through Title V Permit

113. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4a(c)] Federally Enforceable Through Title V Permit

114. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4a(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9a. [40 CFR 60.482-4a(d)] Federally Enforceable Through Title V Permit

115. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1), (2), (3), and (4). [40 CFR 60.482-5a(a), (b), and (c)] Federally Enforceable Through Title V Permit

116. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1a(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6a(a) and (c)] Federally Enforceable Through Title V Permit

117. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6a(b)] Federally Enforceable Through Title V Permit

118. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)] Federally Enforceable Through Title V Permit

119. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)] Federally Enforceable Through Title V Permit

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120. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c) and (f). A leak is detected if an instrument reading of 500 ppm or greater is measured. [40 CFR 60.482-7a(a) and (b] Federally Enforceable Through Title V Permit

121. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7a(c)] Federally Enforceable Through Title V Permit

122. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)] Federally Enforceable Through Title V Permit

123. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f)] Federally Enforceable Through Title V Permit

124. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7a(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7a(g)] Federally Enforceable Through Title V Permit

125. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 and was constructed on or before January 5, 1981; or has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator. 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7a(h)] Federally Enforceable Through Title V Permit

126. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a as an alternative to the requirements in 40 CFR 60.482-7a. [40 CFR 60.592a(b)] Federally Enforceable Through Title V Permit

127. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8a(a) and (b), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

128. When a leak is detected in pumps and valves in heavy liquid service, and pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7a(e). [40 CFR 60.482-8a(c) and (d), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

129. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10a(b)] Federally Enforceable Through Title V Permit

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130. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10a(c)] Federally Enforceable Through Title V Permit

131. Flares used to comply with Subpart GGGa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)] Federally Enforceable Through Title V Permit

132. Owners or operators of control devices used to comply with the provisions of Subpart GGGa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)] Federally Enforceable Through Title V Permit

133. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system used to comply with the provisions of Subpart GGGa shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10a(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10a(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10a(f) and (g)] Federally Enforceable Through Title V Permit

134. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10a(h)] Federally Enforceable Through Title V Permit

135. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)] Federally Enforceable Through Title V Permit

136. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)] Federally Enforceable Through Title V Permit

137. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)] Federally Enforceable Through Title V Permit

138. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10a(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10a(l)] [District Rule] Federally Enforceable Through Title V Permit

139. Closed vent systems and control devices used to comply with provisions of Subpart GGGa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)] Federally Enforceable Through Title V Permit

140. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)] Federally Enforceable Through Title V Permit

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141. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring. A calibration drift assessment shall be performed, at a minimum, at the end of each Method 21 monitoring day, per 60.485a(b)(2). [40 CFR 60.485a(b)] Federally Enforceable Through Title V Permit

142. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485a(c)] Federally Enforceable Through Title V Permit

143. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485a(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485a(d)] Federally Enforceable Through Title V Permit

144. The owner or operator shall demonstrate that equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 degrees C (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)] Federally Enforceable Through Title V Permit

145. Samples used in conjunction with 40 CFR 60.485a(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485a(f)] Federally Enforceable Through Title V Permit

146. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485a(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485a(g)] [District Rule] Federally Enforceable Through Title V Permit

147. An owner or operator of more than one affected facility subject to the provisions Subpart GGGa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)] Federally Enforceable Through Title V Permit

148. The owner or operator shall record the following information for each monitoring event required by §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification; (ii) Operator identification; (iii) Equipment identification; (iv) Date of monitoring; (v) Instrument reading. [40 CFR 60.486a(a)(3)] Federally Enforceable Through Title V Permit

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149. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7a(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486a(b)] Federally Enforceable Through Title V Permit

150. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number (except when indications of liquids dripping from a pump are designated as a leak); 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) The maximum instrument reading measured by the methods specified in 40 CFR 60.485a(a) at the time the leak is successfully repaired or determined to be nonrepairable (except when a pump is repaired by eliminating indicates of liquids dripping); 5) ``Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2520] Federally Enforceable Through Title V Permit

151. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)] Federally Enforceable Through Title V Permit

152. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGGa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f) shall be signed by the owner or operator, or other mechanism as established with the permitting authority; 3) A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with §60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr; 7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 8) Method 21 monitoring instrument calibration records including (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value per section 10.1 of Method 21; (v) Results of each calibration drift assessment required by §60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 9) The connector monitoring schedule for each process unit as specified in §60.482-11a(b)(3)(v); and 10) Records of each release from a pressure relief device subject to §60.482-4a. [40 CFR 60.486a(e)] Federally Enforceable Through Title V Permit

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153. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connectors stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486a(f)] Federally Enforceable Through Title V Permit

154. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)] Federally Enforceable Through Title V Permit

155. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)] Federally Enforceable Through Title V Permit

156. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480a(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486a(i)] Federally Enforceable Through Title V Permit

157. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486a(j)] Federally Enforceable Through Title V Permit

158. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGGa. [40 CFR 60.486a(k)] Federally Enforceable Through Title V Permit

159. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in §60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in §60.482-11a(d), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)] Federally Enforceable Through Title V Permit

160. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)] Federally Enforceable Through Title V Permit

161. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGGa except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487a(e)] Federally Enforceable Through Title V Permit

162. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)] Federally Enforceable Through Title V Permit

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163. Compressors are exempt from the standards of Subpart GGGa if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment to demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593a(b)] Federally Enforceable Through Title V Permit

164. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3a (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3a(a), (b), (c), (d), (e), and (h). [40 CFR 60.593a(c)] Federally Enforceable Through Title V Permit

165. An owner or operator may use the following provision in addition to 40 CFR 60.485a(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 93, 95, or 96. [40 CFR 60.593a(d)] Federally Enforceable Through Title V Permit

166. Connectors in gas/vapor or light liquid service are exempt from the requirements in 40 CFR 60.482-11a, provided the owner or operator complies with 40 CFR 60.482-8a for all connectors, not just those in heavy liquid service. [40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

167. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)] Federally Enforceable Through Title V Permit

168. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H2S) in excess of 0.1 gr/dscf (230 mg/dscm) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit

169. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit

170. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H2S as measured by the H2S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO2 as measured by the SO2 continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit

171. Operator shall determine compliance with the H2S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit

172. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit

173. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit

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174. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGGa. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit

175. Fuel gas sulfur content shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

176. Permittee shall determine sulfur content of combusted gas annually. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

177. Pursuant to Rule 4320, the operator shall pay an annual emission fee to the District for NOx emissions from combustion unit(s) for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

178. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit

179. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 278 lbs, 2nd quarter - 278 lbs, 3rd quarter - 278 lbs, and 4th quarter - 278 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

180. ERC Certificate Number S-3663-1 (or certificates split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

181. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-9-18

ISSUANCE DATE: 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF VACUUM UNIT #11 INCLUDING NATURAL GAS/REFINERY GAS FIRED VACUUM CHARGE HEATERS 11H1 AND 11H2 (DE-RATED AT 130 MMBTU/HR TOTAL), VACUUM TOWER, FOUR STAGE VACUUM SYSTEM WITH GAS AMINE CONTACTOR AND MISC. PUMPS, PIPING, EXCHANGERS, FIN FANS, DRUMS, AND VESSELS - AREA 1: PUMP AND PIPING MODIFICATIONS

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit
5. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

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YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-9-19 : Mar 19 2015 9:31AM – RINALDIR : Joint Inspection Required with RINALDIR

7. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

9. Fugitive volatile organic compound (VOC) emissions shall not exceed 1.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Permittee shall meet all applicable requirements of NSPS Subparts A and, J, and GGG. [District Rule 4401] Federally Enforceable Through Title V Permit

13. Vacuum system exhaust gas shall either be collected, compressed, and added to refinery gas; controlled and combusted in an appropriate firebox or incinerator with at least 90 percent VOC control efficiency; or controlled by an equivalent method approved by the APCO. [District Rule 4453] Federally Enforceable Through Title V Permit

14. Maximum heat input of each de-rated heater, heaters 11H1 and 11H2, shall be less than or equal to 65 million Btu per hour. 4306] Y [District Rules 2201and 4306] Federally Enforceable Through Title V Permit

15. Emissions from the natural gas-fired vacuum heaters 11H1 and 11H2 shall not exceed any of the following limits: 30 ppmvd NOx @ 3% O2 or 0.036 lb-NOx/MMBtu, , 0.0076 lb-PM10/MMBtu, 225 ppmvd CO @ 3% O2 or 0.116 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

16. All sampling connections, open ended valves or lines shall be equipped with two closed valves or be capped with blind flanges or threaded plugs except during actual use [District Rule 4001] Federally Enforceable Through Title V Permit

17. Continuous records of each heaters (heater 11H1 and 11H2) firing rate, including volumetric fuel consumption rate (corrected for temperature) and hhv of fuel burned shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520] Federally Enforceable Through Title V Permit

19. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201 and 4301] Federally Enforceable Through Title V Permit

20. Source testing to measure NOx and CO emissions from heaters 11H1 and 11H2 while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306 (amended October 16, 2008). [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

24. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

26. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 1081, 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

27. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

29. Source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

30. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(amended December 16,1993). [District Rule 1081] Federally Enforceable Through Title V Permit

31. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

32. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

33. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2, the O2 concentration, and method of NOx measurement (CEM or portable analyzer). The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. These records shall be retained at the facility for a period of no less than 5 years and shall be made available for District inspection upon request. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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34. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

35. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

36. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520 and 4301] Federally Enforceable Through Title V Permit

37. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520] Federally Enforceable Through Title V Permit

38. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520] Federally Enforceable Through Title V Permit

39. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520] Federally Enforceable Through Title V Permit

40. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

41. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 4801] Federally Enforceable Through Title V Permit

42. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rule 4301] Federally Enforceable Through Title V Permit

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43. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit

44. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit

45. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

46. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

47. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

48. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

49. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

50. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

51. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

52. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

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53. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit

54. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit

55. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit

56. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit

57. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

58. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455]

59. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

60. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

61. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

62. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit

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63. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit

64. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit

65. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit

66. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit

67. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit

68. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

69. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit

70. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit

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71. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit

72. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit

73. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit

74. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit

75. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit

76. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit

77. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit

78. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

79. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4455] Federally Enforceable Through Title V Permit

80. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGG. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484. [40 CFR 60.592(c)] Federally Enforceable Through Title V Permit

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81. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-2(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 10,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2(a) and (b)] Federally Enforceable Through Title V Permit

82. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2(c)] Federally Enforceable Through Title V Permit

83. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2(a) provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met. [40 CFR 60.482(d)] Federally Enforceable Through Title V Permit

84. Any PLLS that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2(e)(1), (2), and (3). [40 CFR 60.482-2(e)] Federally Enforceable Through Title V Permit

85. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from the requirements of 40 CFR 60.482-2(a) through (e). [40 CFR 60.482-2(f)] Federally Enforceable Through Title V Permit

86. Any pump in PLLS that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2(a) and 40 CFR 60.482-2(d)(4) through (6) if: 1). The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. [40 CFR 60.482-2(g)] Federally Enforceable Through Title V Permit

87. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2(h)] Federally Enforceable Through Title V Permit

88. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(a)] Federally Enforceable Through Title V Permit

89. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(b)] Federally Enforceable Through Title V Permit

90. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempted from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)] Federally Enforceable Through Title V Permit

91. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. [40 CFR 60.482-4(d)] Federally Enforceable Through Title V Permit

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92. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5(b)(1), (2), (3), and (4). [40 CFR 60.482-5(a), (b), and (c)] Federally Enforceable Through Title V Permit

93. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6(a) and (c)] Federally Enforceable Through Title V Permit

94. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6(b)] Federally Enforceable Through Title V Permit

95. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6(a), (b) and (c). [40 CFR 60.482-6(d)] Federally Enforceable Through Title V Permit

96. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6(a) through (c) are exempt from the requirements of 40 CFR 60.482-6(a) through (c). [40 CFR 60.482-6(e)] Federally Enforceable Through Title V Permit

97. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with 40 CFR 60.482-7(b) through (e), except as provided in 40 CFR 60.482-7(f), (g), and (h), 40 CFR 60.483-1, 40 CFR 60.483-2, and 40 CFR 60.482-1(c). A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-7(a) and (b)] Federally Enforceable Through Title V Permit

98. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7(c)] Federally Enforceable Through Title V Permit

99. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7(d) and (e)] Federally Enforceable Through Title V Permit

100. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7(a) if the valve meets the requirements specified in 40 CFR 60.482-7(f)(1), (2), and (3). [40 CFR 60.482-7(f)] Federally Enforceable Through Title V Permit

101. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7(g)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

102. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7(h)] Federally Enforceable Through Title V Permit

103. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1 and 60.483-2. [40 CFR 60.592(b)] Federally Enforceable Through Title V Permit

104. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and shall comply with the requirements of 40 CFR 60.482-8(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8(a) and (b)] Federally Enforceable Through Title V Permit

105. When a leak is detected in pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7(e). [40 CFR 60.482-8(c) and (d)] Federally Enforceable Through Title V Permit

106. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)] Federally Enforceable Through Title V Permit

107. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10(c)] Federally Enforceable Through Title V Permit

108. Flares used to comply with Subpart GGG shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10(d)] Federally Enforceable Through Title V Permit

109. Owners or operators of control devices used to comply with the provisions of Subpart GGG shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10(e)] Federally Enforceable Through Title V Permit

110. Except as provided in 40 CFR 60.482-10(i) through (k), each closed vent system used to comply with the provisions of Subpart GGG shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10(f) and (g)] Federally Enforceable Through Title V Permit

111. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10(h)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

112. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2). [40 CFR 60.482-10(i)] Federally Enforceable Through Title V Permit

113. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10 (j)(1) and (j)(2). [40 CFR 60.482-10(j)] Federally Enforceable Through Title V Permit

114. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(k)(1) through (k)(3). [40 CFR 60.482-10(k)] Federally Enforceable Through Title V Permit

115. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c); 4) For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l)] Federally Enforceable Through Title V Permit

116. Closed vent systems and control devices used to comply with provisions Subpart GGG shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)] Federally Enforceable Through Title V Permit

117. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). [40 CFR 60.485(a)] Federally Enforceable Through Title V Permit

118. The owner or operator shall determine compliance with the standards in 40 CFR 60.482, 60.483, and 60.484 as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [40 CFR 60.485(b)] Federally Enforceable Through Title V Permit

119. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows: 1) The requirements of 40 CFR 60.485(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485(c)] Federally Enforceable Through Title V Permit

120. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485(d)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

121. The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 degrees C (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485(e)] Federally Enforceable Through Title V Permit

122. Samples used in conjunction with 40 CFR 60.485(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485(f)] Federally Enforceable Through Title V Permit

123. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485(g)] Federally Enforceable Through Title V Permit

124. An owner or operator of more than one affected facility subject to the provisions Subpart GGG may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)] Federally Enforceable Through Title V Permit

125. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486(b)] Federally Enforceable Through Title V Permit

126. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number; 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) ``Above 10,000" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm; 5) ``Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486(c) and District Rule 2520] Federally Enforceable Through Title V Permit

127. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5. [40 CFR 60.486(d)] Federally Enforceable Through Title V Permit

128. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGG; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with ⊥ 60.482-4; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i), ⊥ 60.482-4, and 60.482-7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; and 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

129. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486(f)] Federally Enforceable Through Title V Permit

130. The following information shall be recorded for valves complying with 40 CFR 60.483-2: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)] Federally Enforceable Through Title V Permit

131. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486(h)] Federally Enforceable Through Title V Permit

132. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486(i)] Federally Enforceable Through Title V Permit

133. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486(j)] Federally Enforceable Through Title V Permit

134. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGG. [District 40 CFR 60.486(k)] Federally Enforceable Through Title V Permit

135. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7(b) or 40 CFR 60.483-2, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487 (a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487(c)] Federally Enforceable Through Title V Permit

136. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1 and 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487(d)] Federally Enforceable Through Title V Permit

137. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGG except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487(e)] Federally Enforceable Through Title V Permit

138. The semiannual reporting requirements of 40 CFR 60.487(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487(f)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

139. Compressors are exempt from the standards of Subpart GGG if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593(b)] Federally Enforceable Through Title V Permit

140. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h). [40 CFR 60.593(c)] Federally Enforceable Through Title V Permit

141. An owner or operator may use the following provision in addition to 40 CFR 60.485(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 95, or 96. [40 CFR 60.593(d)] Federally Enforceable Through Title V Permit

142. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5). [40 CFR 60.482-1(d)] Federally Enforceable Through Title V Permit

143. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGG. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit

144. Fuel gas sulfur content shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

145. Permittee shall determine sulfur content of combusted gas annually. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

146. Pursuant to Rule 4320, the operator shall pay an annual emission fee to the District for NOx emissions from combustion unit(s) for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

147. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit

148. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-10-8

ISSUANCE DATE: 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF GAS PLANT #10 INCLUDING (UNIT 12) DEBUTANIZER 12-V1, NAPHTHA SPLITTER 12-V4, DEPROPANIZER 15-V1, AND MISC. PUMPS, PIPING, EXCHANGERS, FIN FANS, DRUMS, AND VESSELS - AREA 1: ADDITIONAL HEAT EXCHANGERS; PIPING, EXCHANGER MODIFICATIONS; AND PUMP REPLACEMENTS

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit
5. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-10-8 Mar 19 2015 8:32AM – RINALDIR Joint Inspection Required with RINALDIR

7. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]

9. Fugitive volatile organic compound (VOC) emissions shall not exceed 5.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

12. All sampling connections, open ended valves or lines shall be equipped with two closed valves or be capped with blind flanges or threaded plugs except during actual use. [District Rule 4001] Federally Enforceable Through Title V Permit

13. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit

14. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit

15. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

16. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

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17. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

18. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

19. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

20. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

21. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

22. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

23. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit

24. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit

25. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit

26. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit

27. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

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28. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

29. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

30. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

31. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

32. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit

33. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit

34. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit

35. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit

36. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit

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37. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit

38. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

39. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit

40. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit

41. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit

42. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit

43. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit

44. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit

45. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit

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46. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit

47. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit

48. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

49. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4455] Federally Enforceable Through Title V Permit

50. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGGa. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484a. [40 CFR 60.592a(c)] Federally Enforceable Through Title V Permit

51. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and (f) and 40 CFR 60.482-2a(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 2,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2a(a) and (b)] Federally Enforceable Through Title V Permit

52. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)] Federally Enforceable Through Title V Permit

53. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)] Federally Enforceable Through Title V Permit

54. Any PLLS that is designated, as described in 40 CFR 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e)] Federally Enforceable Through Title V Permit

55. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)] Federally Enforceable Through Title V Permit

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56. Any pump in PLLS that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(d)(4) through (6) if: 1). The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2a(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)] Federally Enforceable Through Title V Permit

57. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482a-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)] Federally Enforceable Through Title V Permit

58. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(a)] Federally Enforceable Through Title V Permit

59. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9a. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(b)] Federally Enforceable Through Title V Permit

60. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4a(c)] Federally Enforceable Through Title V Permit

61. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4a(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9a. [40 CFR 60.482-4a(d)]

62. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1), (2), (3), and (4). [40 CFR 60.482-5a(a), (b), and (c)] Federally Enforceable Through Title V Permit

63. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1a(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6a(a) and (c)] Federally Enforceable Through Title V Permit

64. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [District Rule 40 CFR 60.482-6a(b)] Federally Enforceable Through Title V Permit

65. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)] Federally Enforceable Through Title V Permit

66. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)] Federally Enforceable Through Title V Permit

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67. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c) and (f). A leak is detected if an instrument reading of 500 ppm or greater is measured. [40 CFR 60.482-7a(a) and (b] Federally Enforceable Through Title V Permit

68. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7a(c)] Federally Enforceable Through Title V Permit

69. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)] Federally Enforceable Through Title V Permit

70. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f)] Federally Enforceable Through Title V Permit

71. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7a(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7a(g)] Federally Enforceable Through Title V Permit

72. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 and was constructed on or before January 5, 1981; or has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator. 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7a(h)] Federally Enforceable Through Title V Permit

73. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a as an alternative to the requirements in 40 CFR 60.482-7a. [40 CFR 60.592a(b)] Federally Enforceable Through Title V Permit

74. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8a(a) and (b), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

75. When a leak is detected in pumps and valves in heavy liquid service, and pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7a(e). [40 CFR 60.482-8a(c) and (d) , 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

76. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10a(b)] Federally Enforceable Through Title V Permit

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77. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10a(c)] Federally Enforceable Through Title V Permit

78. Flares used to comply with Subpart GGGa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)] Federally Enforceable Through Title V Permit

79. Owners or operators of control devices used to comply with the provisions of Subpart GGGa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)] Federally Enforceable Through Title V Permit

80. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system used to comply with the provisions of Subpart GGGa shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10a(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10a(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10a(f) and (g)] Federally Enforceable Through Title V Permit

81. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10a(h)] Federally Enforceable Through Title V Permit

82. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)] Federally Enforceable Through Title V Permit

83. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)] Federally Enforceable Through Title V Permit

84. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)] Federally Enforceable Through Title V Permit

85. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10a(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10a(l)] Federally Enforceable Through Title V Permit

86. Closed vent systems and control devices used to comply with provisions of Subpart GGGa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)] Federally Enforceable Through Title V Permit

87. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

88. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring. A calibration drift assessment shall be performed, at a minimum, at the end of each Method 21 monitoring day, per 60.485a(b)(2). [40 CFR 60.485a(b)] Federally Enforceable Through Title V Permit

89. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485a(c)] Federally Enforceable Through Title V Permit

90. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485a(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485a(d)] Federally Enforceable Through Title V Permit

91. The owner or operator shall demonstrate that equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 degrees C (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)] Federally Enforceable Through Title V Permit

92. Samples used in conjunction with 40 CFR 60.485a(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485a(f)] Federally Enforceable Through Title V Permit

93. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485a(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485a(g)] Federally Enforceable Through Title V Permit

94. An owner or operator of more than one affected facility subject to the provisions Subpart GGGa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)] Federally Enforceable Through Title V Permit

95. The owner or operator shall record the following information for each monitoring event required by §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification; (ii) Operator identification; (iii) Equipment identification; (iv) Date of monitoring; (v) Instrument reading. [40 CFR 60.486a(a)(3)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

96. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7a(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486a(b)] Federally Enforceable Through Title V Permit

97. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number (except when indications of liquids dripping from a pump are designated as a leak); 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) The maximum instrument reading measured by the methods specified in 40 CFR 60.485a(a) at the time the leak is successfully repaired or determined to be nonrepairable (except when a pump is repaired by eliminating indicates of liquids dripping); 5) ``Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2520] Federally Enforceable Through Title V Permit

98. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)] Federally Enforceable Through Title V Permit

99. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGGa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f) shall be signed by the owner or operator, or other mechanism as established with the permitting authority; 3) A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with §60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr; 7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 8) Method 21 monitoring instrument calibration records including (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value per section 10.1 of Method 21; (v) Results of each calibration drift assessment required by §60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 9) The connector monitoring schedule for each process unit as specified in §60.482-11a(b)(3)(v); and 10) Records of each release from a pressure relief device subject to §60.482-4a. [40 CFR 60.486a(e)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

100. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connectors stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486a(f)] Federally Enforceable Through Title V Permit

101. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)] Federally Enforceable Through Title V Permit

102. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)] Federally Enforceable Through Title V Permit

103. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480a(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486a(i)] Federally Enforceable Through Title V Permit

104. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486a(j)] Federally Enforceable Through Title V Permit

105. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGGa. [40 CFR 60.486a(k)] Federally Enforceable Through Title V Permit

106. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in §60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in §60.482-11a(d), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)] Federally Enforceable Through Title V Permit

107. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)] Federally Enforceable Through Title V Permit

108. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGGa except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487a(e)] Federally Enforceable Through Title V Permit

109. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

110. Compressors are exempt from the standards of Subpart GGGa if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment to demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593a(b)] Federally Enforceable Through Title V Permit

111. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3a (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3a(a), (b), (c), (d), (e), and (h). [40 CFR 60.593a(c)] Federally Enforceable Through Title V Permit

112. An owner or operator may use the following provision in addition to 40 CFR 60.485a(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 93, 95, or 96. [40 CFR 60.593a(d)] Federally Enforceable Through Title V Permit

113. Connectors in gas/vapor or light liquid service are exempt from the requirements in 40 CFR 60.482-11a, provided the owner or operator complies with 40 CFR 60.482-8a for all connectors, not just those in heavy liquid service. [40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

114. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)] Federally Enforceable Through Title V Permit

115. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-11-13 **ISSUANCE DATE:** 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF HYDROTREATER UNIT #8 INCLUDING 12.8 MMBTU/HR GAS-FIRED CHARGE HEATER (8-H1) WITH JOHN ZINK COOLSTAR LOW NOX BURNER, REACTOR (8-R1), SEPARATOR (8-V2), 12.8 MMBTU/HR GAS-FIRED REBOILER HEATER (8-H2) WITH JOHN ZINK COOLSTAR LOW NOX BURNER, STRIPPER (8-V4), STRIPPER RECEIVER (8-V8), MAKE-UP GAS/RECYCLE COMPRESORS (8-C1A/B), AND MISC PUMPS, PIPING, EXCHANGERS, FIN FANS, DRUMS, AND VESSELS - AREA 1: MODIFICATIONS TO NAPHTHA STRIPPER (8-V4), PUMPS, COMPRESSORS,HEAT EXCHANGERS, HEATER 8-H1 CONVECTION SECTION, PIPING, AND FIN FAN COOLERS; NEW PUMPS AND EXCHANGERS

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit
5. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-11-13 Mar 19 2015 8:32AM – RINALDIR : Joint Inspection Required with RINALDIR

6. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

9. Permittee shall meet all applicable requirements of NSPS Subparts A, J, and GGG. [District Rule 4001] Federally Enforceable Through Title V Permit

10. Leaks from valves and connectors associated with hot high-pressure separator (8-D7) and HTU reactor feed/effluent exchangers (8-E1 G/H) that are subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as required per Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Sour gas shall discharge only to amine treater, sulfur recovery plant or, under breakdown conditions, to the flare, as provided for under Rules 1100 and 4001, Subparts A and J. [District Rules 2201, 1100 and 4001] Federally Enforceable Through Title V Permit

12. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel [District Rule 2520] Federally Enforceable Through Title V Permit

13. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

14. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rule 4301, 5.2.2] Federally Enforceable Through Title V Permit

15. The operator shall not burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H2S) in excess of 0.10 gr/dscf (230 mg/dscm). [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit

16. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60.105(a)(3)] Federally Enforceable Through Title V Permit

17. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H2S as measured by the H2S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO2 as measured by the SO2 continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit

18. Operator shall determine compliance with the H2S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit

19. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit

20. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit

21. Fugitive volatile organic compound (VOC) emissions shall not exceed 18.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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22. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Except during startup and shutdown, heater 8H1 and 8H2 emission rates shall not exceed any of the following: NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, CO: 400 ppmvd @ 3% O2, VOC: 0.0055 lb/MMBtu or PM10: 0.0076 lb/MMBtu,. [District Rules 2201, 4305, 4306, 4320 and 4351] Federally Enforceable Through Title V Permit

25. Emission rates from each heater (8H1 and 8H2) shall not exceed any of the following: PM10: 2.3 lb/day, SOx (as SO2): 8.8 lb/day, VOC: 1.7 lb/day, NOx (as NO2): 55.3 lb/day or 4,052 lb/year, or CO: 92.2 lb/day or 7,535 lb/year. [District Rules 2201 and 4301] Federally Enforceable Through Title V Permit

26. For heaters 8H1 and 8H2, duration of start-up and shutdown shall not exceed 2 hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 4305,and 4306] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rules 4305, and 4306] Federally Enforceable Through Title V Permit

28. For each heater, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

29. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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32. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306 (amended October 16, 2008). [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

33. Source testing to measure NOx and CO emissions from Heater 10-H1 and Heater 10-H2 shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

34. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

35. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306 (amended October 16, 2008). [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

36. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

37. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

38. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

39. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

40. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

41. Source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

42. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

43. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6C or ARB Method 100. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

44. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using EPA Method 11, ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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45. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826, D 1945 or EPA Method 15 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2.1, 4306, 6.2.1, 4320 and 4351, 6.2.1] Federally Enforceable Through Title V Permit

46. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit

47. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit

48. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

49. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

50. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

51. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

52. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

53. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

54. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

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55. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

56. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit

57. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit

58. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit

59. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit

60. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

61. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455]

62. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

63. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

64. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

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65. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit

66. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit

67. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit

68. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit

69. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit

70. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit

71. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

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72. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit

73. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit

74. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit

75. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit

76. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit

77. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit

78. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit

79. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit

80. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit

81. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

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82. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4455] Federally Enforceable Through Title V Permit

83. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGG. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484. [40 CFR 60.592(c)] Federally Enforceable Through Title V Permit

84. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-2(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 10,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2(a) and (b)] Federally Enforceable Through Title V Permit

85. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2(c)] Federally Enforceable Through Title V Permit

86. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2(a) provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met. [40 CFR 60.482(d)] Federally Enforceable Through Title V Permit

87. Any PLLS that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2(e)(1), (2), and (3). [40 CFR 60.482-2(e)] Federally Enforceable Through Title V Permit

88. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from the requirements of 40 CFR 60.482-2(a) through (e). [40 CFR 60.482-2(f)] Federally Enforceable Through Title V Permit

89. Any pump in PLLS that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2(a) and 40 CFR 60.482-2(d)(4) through (6) if: 1). The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. [40 CFR 60.482-2(g)] Federally Enforceable Through Title V Permit

90. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2(h)] Federally Enforceable Through Title V Permit

91. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(a)] Federally Enforceable Through Title V Permit

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92. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(b)] Federally Enforceable Through Title V Permit

93. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempted from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)] Federally Enforceable Through Title V Permit

94. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. [40 CFR 60.482-4(d)] Federally Enforceable Through Title V Permit

95. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5(b)(1), (2), (3), and (4). [40 CFR 60.482-5(a), (b), and (c)] Federally Enforceable Through Title V Permit

96. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6(a) and (c)] Federally Enforceable Through Title V Permit

97. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6(b)] Federally Enforceable Through Title V Permit

98. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6(a), (b) and (c). [40 CFR 60.482-6(d)] Federally Enforceable Through Title V Permit

99. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6(a) through (c) are exempt from the requirements of 40 CFR 60.482-6(a) through (c). [40 CFR 60.482-6(e)] Federally Enforceable Through Title V Permit

100. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with 40 CFR 60.482-7(b) through (e), except as provided in 40 CFR 60.482-7(f), (g), and (h), 40 CFR 60.483-1, 40 CFR 60.483-2, and 40 CFR 60.482-1(c). A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-7(a) and (b)] Federally Enforceable Through Title V Permit

101. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7(c)] Federally Enforceable Through Title V Permit

102. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7(d) and (e)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

103. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7(a) if the valve meets the requirements specified in 40 CFR 60.482-7(f)(1), (2), and (3). [40 CFR 60.482-7(f)] Federally Enforceable Through Title V Permit

104. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7(g)] Federally Enforceable Through Title V Permit

105. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7(h)] Federally Enforceable Through Title V Permit

106. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1 and 60.483-2. [40 CFR 60.592(b)] Federally Enforceable Through Title V Permit

107. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and shall comply with the requirements of 40 CFR 60.482-8(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8(a) and (b)] Federally Enforceable Through Title V Permit

108. When a leak is detected in pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7(e). [40 CFR 60.482-8(c) and (d)] Federally Enforceable Through Title V Permit

109. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)] Federally Enforceable Through Title V Permit

110. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10(c)] Federally Enforceable Through Title V Permit

111. Flares used to comply with Subpart GGG shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10(d)] Federally Enforceable Through Title V Permit

112. Owners or operators of control devices used to comply with the provisions of Subpart GGG shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10(e)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

113. Except as provided in 40 CFR 60.482-10(i) through (k), each closed vent system used to comply with the provisions of Subpart GGG shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10(f) and (g)] Federally Enforceable Through Title V Permit

114. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10(h)] Federally Enforceable Through Title V Permit

115. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2). [40 CFR 60.482-10(i)] Federally Enforceable Through Title V Permit

116. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10 (j)(1) and (j)(2). [40 CFR 60.482-10(j)] Federally Enforceable Through Title V Permit

117. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(k)(1) through (k)(3). [40 CFR 60.482-10(k)] Federally Enforceable Through Title V Permit

118. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c); 4) For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l)] Federally Enforceable Through Title V Permit

119. Closed vent systems and control devices used to comply with provisions Subpart GGG shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)] Federally Enforceable Through Title V Permit

120. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). [40 CFR 60.485(a)] Federally Enforceable Through Title V Permit

121. The owner or operator shall determine compliance with the standards in 40 CFR 60.482, 60.483, and 60.484 as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [40 CFR 60.485(b)] Federally Enforceable Through Title V Permit

122. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows: 1) The requirements of 40 CFR 60.485(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485(c)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

123. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485(d)] Federally Enforceable Through Title V Permit

124. The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 degrees C (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485(e)] Federally Enforceable Through Title V Permit

125. Samples used in conjunction with 40 CFR 60.485(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485(f)] Federally Enforceable Through Title V Permit

126. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485(g)] Federally Enforceable Through Title V Permit

127. An owner or operator of more than one affected facility subject to the provisions Subpart GGG may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)] Federally Enforceable Through Title V Permit

128. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486(b)] Federally Enforceable Through Title V Permit

129. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number; 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) ``Above 10,000" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm; 5) ``Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486(c) and District Rule 2520] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

130. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5. [40 CFR 60.486(d)] Federally Enforceable Through Title V Permit

131. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGG; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with ⊥ 60.482-4; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i), ⊥ 60.482-4, and 60.482-7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; and 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)] Federally Enforceable Through Title V Permit

132. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486(f)] Federally Enforceable Through Title V Permit

133. The following information shall be recorded for valves complying with 40 CFR 60.483-2: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)] Federally Enforceable Through Title V Permit

134. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486(h)] Federally Enforceable Through Title V Permit

135. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486(i)] Federally Enforceable Through Title V Permit

136. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486(j)] Federally Enforceable Through Title V Permit

137. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGG. [District 40 CFR 60.486(k)] Federally Enforceable Through Title V Permit

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138. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7(b) or 40 CFR 60.483-2, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487 (a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487(c)] Federally Enforceable Through Title V Permit

139. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1 and 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487(d)] Federally Enforceable Through Title V Permit

140. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGG except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487(e)] Federally Enforceable Through Title V Permit

141. The semiannual reporting requirements of 40 CFR 60.487(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487(f)] Federally Enforceable Through Title V Permit

142. Compressors are exempt from the standards of Subpart GGG if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593(b)] Federally Enforceable Through Title V Permit

143. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h). [40 CFR 60.593(c)] Federally Enforceable Through Title V Permit

144. An owner or operator may use the following provision in addition to 40 CFR 60.485(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 95, or 96. [40 CFR 60.593(d)] Federally Enforceable Through Title V Permit

145. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5). [40 CFR 60.482-1(d)] Federally Enforceable Through Title V Permit

146. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGG. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

147. Fuel gas sulfur content shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

148. Permittee shall determine sulfur content of combusted gas annually. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

149. Pursuant to Rule 4320, the operator shall pay an annual emission fee to the District for NOx emissions from combustion unit(s) for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

150. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit

151. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-12-12 **ISSUANCE DATE:** 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF CATALYTIC REFORMER #9 INCLUDING 4 REACTORS 9-R1, R2, R3 AND R4, 4 REFINERY FUEL GAS-FIRED HEATERS 38.5 MMBTU/HR 9-H1 AND 30.8 MMBTU/HR 9-H2 EACH WITH A CALLIDUS LOW NOX BURNER, 18.2 MMBTU/HR 9-H3 AND 9.2 MMBTU/HR 9-H4 EACH WITH A JOHN ZINK COOLSTAR LOW NOX BURNER, SEPARATOR 9-V3, DEPROPANIZER 9-V4, 10.1 MMBTU/HR REBOILER HEATER 9-H5 WITH A JOHN ZINK COOLSTAR LOW NOX BURNER, RECYCLE COMPRESSOR 9-C1, AND MISC PUMPS, PIPING, EXCHANGERS, FIN FANS, DRUMS, & VESSELS - AREA 1: MODIFICATIONS TO PIPING, PUMPS, HEAT EXCHANGERS, AND FIN FAN COOLERS

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit
5. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

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YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-12-12 : Mar 19 2015 8:32AM – RINALDIR : Joint Inspection Required with RINALDIR

6. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

9. Fugitive volatile organic compound (VOC) emissions shall not exceed 26.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Leaks from valves, connectors, and other components (except pumps and compressor seals) associated with piping modifications to route hydrogen rich stream from Catalytic Reforming Unit # 9-D8 to CD Hydro Tech and subject to the provisions of Rule 4455 shall be defined as a VOC reading in excess of 100 ppmv above background on a portable hydrocarbon detection instrument calibrated with methane per EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Permittee shall meet all applicable requirements of NSPS Subparts A and J. [District Rule 4001] Federally Enforceable Through Title V Permit

14. Except during startup and shutdown, heaters 9H1 - 9H4 (common stack) and 9H5 emission rates shall not exceed any of the following: NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, CO: 400 ppmvd @ 3% O2, VOC: 0.0055 lb/MMBtu, or PM10: 0.0076 lb/MMBtu. [District Rules 2201, 4305, 4306, 4320 and 4351] Federally Enforceable Through Title V Permit

15. Emission rates from heater 9H1 shall not exceed any of the following: PM10: 7.0 lb/day, SOx (as SO2): 26.4 lb/day, VOC: 1.7 lb/day, NOx (as NO2): 166.3 lb/day or 12,155 lb/year, or CO: 277.2 lb/day or 22,664 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Emission rates from heater 9H2 shall not exceed any of the following: PM10: 5.6 lb/day, SOx (as SO2): 21.1 lb/day, VOC: 4.1 lb/day, NOx (as NO2): 133.1 lb/day or 9,709 lb/year, or CO: 221.8 lb/day or 18,131 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Emission rates from heater 9H3 shall not exceed any of the following: PM10: 3.3 lb/day, SOx (as SO2): 12.5 lb/day, VOC: 2.4 lb/day, NOx (as NO2): 78.6 lb/day or 5,731 lb/year, or CO: 131.0 lb/day or 10,714 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Emission rates from heater 9H4 shall not exceed any of the following: PM10: 1.7 lb/day, SOx (as SO2): 6.3 lb/day, VOC: 1.2 lb/day, NOx (as NO2): 39.7 lb/day or 2,884 lb/year, or CO: 66.2 lb/day or 5,416 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Emission rates from heater 9H5 shall not exceed any of the following: PM10: 1.8 lb/day, SOx (as SO2): 6.9 lb/day, VOC: 1.3 lb/day, NOx (as NO2): 43.6 lb/day or 3,176 lb/year, or CO: 72.7 lb/day or 5,946 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

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20. For heaters 9H1, 9H2, 9H3, 9H4, & 9H5, compliance with annual CO emission rate shall be determined by using CO emission concentrations obtained during monthly monitoring as required in this permit, fuel use, fuel heating value, and stack gas flow rate. Records of calculated CO emissions shall be maintained for a period of five years and made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For heaters 9H1, 9H2, 9H3, 9H4, & 9H5, duration of start-up and shutdown shall not exceed 2 hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

22. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rules 2080, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

23. For each heater, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

24. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

26. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2520, 9.4.2, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

27. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, 4320 and 4351] Federally Enforceable Through Title V Permit

28. Source testing to measure natural gas-combustion NOx and CO emissions from each heater shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

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29. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

30. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

31. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, 4320 and 4351] Federally Enforceable Through Title V Permit

32. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, 4320 and 4351] Federally Enforceable Through Title V Permit

33. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

34. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

35. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

36. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(Last Amended December 16,1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

37. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

39. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

40. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6C or ARB Method 100. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

41. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using EPA Method 11 or EPA Method 15, ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

42. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2, 4305, 6.2.1, 4320 and 4351, 6.2.1] Federally Enforceable Through Title V Permit

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43. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rules 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

44. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rule 4301, 5.2.2] Federally Enforceable Through Title V Permit

45. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit

46. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit

47. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

48. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

49. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

50. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

51. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

52. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

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53. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

54. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

55. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit

56. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit

57. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit

58. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit

59. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

60. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

61. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

62. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

63. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

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64. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit

65. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit

66. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit

67. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit

68. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit

69. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit

70. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

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71. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit

72. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit

73. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit

74. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit

75. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit

76. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit

77. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit

78. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit

79. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit

80. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

81. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4454, 4.0] Federally Enforceable Through Title V Permit

82. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H2S) in excess of 0.1 gr/dscf (230 mg/dscm). [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit

83. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit

84. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H2S as measured by the H2S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO2 as measured by the SO2 continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit

85. Operator shall determine compliance with the H2S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit

86. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit

87. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit

88. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

89. Fuel gas sulfur content shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

90. Permittee shall determine sulfur content of combusted gas annually. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

91. Pursuant to Rule 4320, the operator shall pay an annual emission fee to the District for NOx emissions from combustion unit(s) for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

92. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit

93. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-13-25 **ISSUANCE DATE:** 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF MILD HYDROCRACKER #14 INCLUDING 50 MMBTU/HR GAS FIRED CHARGE HEATER 14-H1, 40 MMBTU/HR GAS FIRED FEED HEATER 14-H2, REACTOR 14-R1, 4 SEPARATORS 14-D4, 14-D5, 14-D7, 14-D14, FRACTIONATOR 14-V1, DIESEL STRIPPER 14-V4, MAKE-UP/RECYCLE GAS COMPRESSOR 14-C1A/B, HYDROGEN MAKE-UP COMPRESSOR 14-C2, AND MISC PUMPS, HEAT EXCHANGERS, PIPING, FIN FANS, DRUMS, AND VESSELS - AREA 1: ADD PUMPS, MODIFY EXISTING PUMPS AND 14-H1 HEATER TUBING; ADD SALT DRIER AND WATER COALESCER TO THE KEROSENE PRODUCT STREAM; INSTALL TWO NEW FRACTIONATOR OVERHEAD COMPRESSORS (14-C4A/B) AND ANCILLARY EQUIPMENT IN PARALLEL WITH EXISTING FRACTIONATOR OVERHEAD COMPRESSORS (14-C3A/B), UPGRADE RECYCLE GAS SCRUBBER AND REPLACE AMINE FEED PUMPS; REPLACE HIGH PRESSURE SEPARATOR (14-D4); EXCHANGER UPGRADES; PIPING MODIFICATIONS; MODIFY OR REPLACE RECYCLE GAS SCRUBBER (14-V3).

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-13-25 : Mar 19 2015 8:32AM – RINALDIR : Joint Inspection Required with RINALDIR

4. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit

5. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

6. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]

9. Fugitive volatile organic compound (VOC) emissions shall not exceed 13.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rate from heater 14H1 shall not exceed any of the following PM10: 0.075 lb/MMBtu, NOx (as NO2): 30 ppmv @ 3% O2, VOC: 0.005 lb/MMBtu, or CO: 240 ppmv @ 3% O2. [District Rules 2201, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

13. Emission rate from heater 14H2 shall not exceed any of the following VOC: 0.0028 lb/MMBtu; NOx (as NO2): 0.036 lb/MMBtu and CO: 100 ppmv @ 3% O2. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Permittee shall comply with applicable requirements of Rule 4001 NSPS Subparts A, J, and GGGa. [District Rule 4001] Federally Enforceable Through Title V Permit

15. Sour gas shall discharge only to amine treater or sulfur recovery plant, except that sour gas may be discharged to the flare under emergency or upset conditions as provided under Rules 1100 (Breakdown Conditions) and 4001 (NSPS Subparts A and J). [District Rule 2201] Federally Enforceable Through Title V Permit

16. Heater 14-H1 shall be equipped with eight (8) - 6.25 MMBtu/hr John Zink COOLstar-12M Low NOx burners or equivalent burners. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Heater 14-H2 shall be equipped with four (4) - 10 MMBtu/hr rated John Zink COOLstar-15M Low NOx burners or equivalent burners. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rule 4301] Federally Enforceable Through Title V Permit

19. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201 and 4301]

20. The operator shall not burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H2S) in excess of 0.10 gr/dscf (230 mg/dscm) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

21. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit

22. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H2S as measured by the H2S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO2 as measured by the SO2 continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit

23. Operator shall determine compliance with the H2S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit

24. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit

25. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit

26. The permittee shall monitor and record heaters 14H1's and 14H2's stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

27. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

29. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

30. The portable analyzer shall be calibrated prior to each use with a two-point calibration method (zero and span). Calibration shall be performed with certified calibration gases. [District Rule 2520] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

31. Source testing for NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

32. Source testing for NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

33. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

34. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

35. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]

36. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

37. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306 (amended October 16, 2008). [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

38. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

39. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

40. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

41. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

42. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

43. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit

44. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

45. The following conditions must be met for representative unit(s) to be used to test for NOx limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

46. All units in a group for which representative units are source for NOx emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

47. All units in a group for which representative units are source tested for NOx emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

48. The number of representative units source tested for NOx emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

49. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(amended December 16,1993). [District Rule 1081] Federally Enforceable Through Title V Permit

50. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520] Federally Enforceable Through Title V Permit

51. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520 and District Rule 4301] Federally Enforceable Through Title V Permit

52. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520] Federally Enforceable Through Title V Permit

53. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6C or ARB Method 100. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

54. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520] Federally Enforceable Through Title V Permit

55. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

56. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 4801] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

57. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit

58. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit

59. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

60. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

61. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

62. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

63. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

64. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

65. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

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66. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit

67. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit

68. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit

69. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit

70. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

71. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455]

72. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

73. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

74. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

75. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit

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76. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit

77. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit

78. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit

79. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit

80. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit

81. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

82. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit

83. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit

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84. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit

85. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit

86. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit

87. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit

88. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit

89. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit

90. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit

91. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

92. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4455] Federally Enforceable Through Title V Permit

93. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGGa. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484a. [40 CFR 60.592a(c)] Federally Enforceable Through Title V Permit

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94. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and (f) and 40 CFR 60.482-2a(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 2,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2a(a) and (b)] Federally Enforceable Through Title V Permit

95. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)] Federally Enforceable Through Title V Permit

96. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)] Federally Enforceable Through Title V Permit

97. Any PLLS that is designated, as described in 40 CFR 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e)] Federally Enforceable Through Title V Permit

98. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)] Federally Enforceable Through Title V Permit

99. Any pump in PLLS that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(d)(4) through (6) if: 1). The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2a(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)] Federally Enforceable Through Title V Permit

100. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482a-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)] Federally Enforceable Through Title V Permit

101. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(a)] Federally Enforceable Through Title V Permit

102. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9a. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(b)] Federally Enforceable Through Title V Permit

103. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4a(c)] Federally Enforceable Through Title V Permit

104. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4a(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9a. [40 CFR 60.482-4a(d)] Federally Enforceable Through Title V Permit

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105. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1), (2), (3), and (4). [40 CFR 60.482-5a(a), (b), and (c)] Federally Enforceable Through Title V Permit

106. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1a(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6a(a) and (c)] Federally Enforceable Through Title V Permit

107. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6a(b)] Federally Enforceable Through Title V Permit

108. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)] Federally Enforceable Through Title V Permit

109. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)] Federally Enforceable Through Title V Permit

110. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c) and (f). A leak is detected if an instrument reading of 500 ppm or greater is measured. [40 CFR 60.482-7a(a) and (b] Federally Enforceable Through Title V Permit

111. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7a(c)] Federally Enforceable Through Title V Permit

112. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)] Federally Enforceable Through Title V Permit

113. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f)] Federally Enforceable Through Title V Permit

114. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7a(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7a(g)] Federally Enforceable Through Title V Permit

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115. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 and was constructed on or before January 5, 1981; or has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator. 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7a(h)] Federally Enforceable Through Title V Permit

116. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a as an alternative to the requirements in 40 CFR 60.482-7a. [40 CFR 60.592a(b)] Federally Enforceable Through Title V Permit

117. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8a(a) and (b), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

118. When a leak is detected in pumps and valves in heavy liquid service, and pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7a(e). [40 CFR 60.482-8a(c) and (d) , 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

119. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10a(b)] Federally Enforceable Through Title V Permit

120. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10a(c)] Federally Enforceable Through Title V Permit

121. Flares used to comply with Subpart GGGa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)] Federally Enforceable Through Title V Permit

122. Owners or operators of control devices used to comply with the provisions of Subpart GGGa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)] Federally Enforceable Through Title V Permit

123. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system used to comply with the provisions of Subpart GGGa shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10a(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10a(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10a(f) and (g)] Federally Enforceable Through Title V Permit

124. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10a(h)] Federally Enforceable Through Title V Permit

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125. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)] Federally Enforceable Through Title V Permit

126. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)] Federally Enforceable Through Title V Permit

127. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)] Federally Enforceable Through Title V Permit

128. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10a(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10a(l)] Federally Enforceable Through Title V Permit

129. Closed vent systems and control devices used to comply with provisions of Subpart GGGa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)] Federally Enforceable Through Title V Permit

130. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)] Federally Enforceable Through Title V Permit

131. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring. A calibration drift assessment shall be performed, at a minimum, at the end of each Method 21 monitoring day, per 60.485a(b)(2). [40 CFR 60.485a(b)] Federally Enforceable Through Title V Permit

132. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485a(c)] Federally Enforceable Through Title V Permit

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133. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485a(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485a(d)] Federally Enforceable Through Title V Permit

134. The owner or operator shall demonstrate that equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 degrees C (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)] Federally Enforceable Through Title V Permit

135. Samples used in conjunction with 40 CFR 60.485a(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485a(f)] Federally Enforceable Through Title V Permit

136. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6C or ARB Method 100. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

137. An owner or operator of more than one affected facility subject to the provisions Subpart GGGa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)] Federally Enforceable Through Title V Permit

138. The owner or operator shall record the following information for each monitoring event required by §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification; (ii) Operator identification; (iii) Equipment identification; (iv) Date of monitoring; (v) Instrument reading. [40 CFR 60.486a(a)(3)] Federally Enforceable Through Title V Permit

139. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7a(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486a(b)] Federally Enforceable Through Title V Permit

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140. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number (except when indications of liquids dripping from a pump are designated as a leak); 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) The maximum instrument reading measured by the methods specified in 40 CFR 60.485a(a) at the time the leak is successfully repaired or determined to be nonrepairable (except when a pump is repaired by eliminating indicates of liquids dripping); 5) ``Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2520] Federally Enforceable Through Title V Permit

141. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)] Federally Enforceable Through Title V Permit

142. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGGa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f) shall be signed by the owner or operator, or other mechanism as established with the permitting authority; 3) A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with §60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr; 7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 8) Method 21 monitoring instrument calibration records including (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value per section 10.1 of Method 21; (v) Results of each calibration drift assessment required by §60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 9) The connector monitoring schedule for each process unit as specified in §60.482-11a(b)(3)(v); and 10) Records of each release from a pressure relief device subject to §60.482-4a. [40 CFR 60.486a(e)] Federally Enforceable Through Title V Permit

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143. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connectors stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486a(f)] Federally Enforceable Through Title V Permit

144. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)] Federally Enforceable Through Title V Permit

145. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)] Federally Enforceable Through Title V Permit

146. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480a(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486a(i)] Federally Enforceable Through Title V Permit

147. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486a(j)] Federally Enforceable Through Title V Permit

148. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGGa. [40 CFR 60.486a(k)] Federally Enforceable Through Title V Permit

149. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in §60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in §60.482-11a(d), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)] Federally Enforceable Through Title V Permit

150. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)] Federally Enforceable Through Title V Permit

151. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGGa except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487a(e)] Federally Enforceable Through Title V Permit

152. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)] Federally Enforceable Through Title V Permit

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153. Compressors are exempt from the standards of Subpart GGGa if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment to demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593a(b)] Federally Enforceable Through Title V Permit

154. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3a (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3a(a), (b), (c), (d), (e), and (h). [40 CFR 60.593a(c)] Federally Enforceable Through Title V Permit

155. An owner or operator may use the following provision in addition to 40 CFR 60.485a(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 93, 95, or 96. [40 CFR 60.593a(d)] Federally Enforceable Through Title V Permit

156. Connectors in gas/vapor or light liquid service are exempt from the requirements in 40 CFR 60.482-11a, provided the owner or operator complies with 40 CFR 60.482-8a for all connectors, not just those in heavy liquid service. [40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

157. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)] Federally Enforceable Through Title V Permit

158. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGGa. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit

159. Fuel gas sulfur content shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

160. Permittee shall determine sulfur content of combusted gas annually. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

161. Pursuant to Rule 4320, the operator shall pay an annual emission fee to the District for NOx emissions from combustion unit(s) for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

162. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit

163. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 308 lbs, 2nd quarter - 308 lbs, 3rd quarter - 308 lbs, and 4th quarter - 308 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

164. ERC Certificate Number S-3663-1 (or certificates split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

165. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-49-8 **ISSUANCE DATE:** 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 28 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 161.4 MMBTU/HR CRUDE UNIT #11 INCLUDING HEATERS 11-H11, 11-H12, AND 11-H13, AND TOPPING ASSEMBLY - AREA 2: TRANSFER HEATER 11-H11 TO PERMIT S-33-349 AND RENAME THE HEATER 27-H2

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit
5. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

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YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executiva Director / APCO

Arnold Marjollet, Director of Permit Services
S-33-49-8 : Mar 19 2015 8:32AM – RINALDIR : Joint Inspection Required with RINALDIR

7. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

9. Permittee shall meet all applicable requirements of NSPS Subparts A and J. [NSPS 40 CFR Part 60, Subparts A & J] Federally Enforceable Through Title V Permit

10. Gas plant Heater 11-H13 is in service as part of hydro unit #27 S-33-349 as heater 27H-1. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

12. Spent caustics and waste liquids shall be disposed of in a manner preventing the creation of odors. [District Rule 4102]

13. Heat exchangers utilizing cooling water shall be maintained to prevent volatile organic compound emissions from cooling towers. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Heater 11-H12 emission rates shall not exceed NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or CO: 400 ppmv @ 3% O2. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit

15. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of heater 11-H12. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit

16. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(Last Amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit

17. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

19. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

20. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using EPA Method 11 or EPA Method 15, ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

21. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

22. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201and 4455] Federally Enforceable Through Title V Permit

24. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455, 4.1 & 4.2] Federally Enforceable Through Title V Permit

25. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1] Federally Enforceable Through Title V Permit

26. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2] Federally Enforceable Through Title V Permit

27. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455, 5.1.3.1] Federally Enforceable Through Title V Permit

28. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.1] Federally Enforceable Through Title V Permit

29. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.2] Federally Enforceable Through Title V Permit

30. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455, 5.1.3.2.3] Federally Enforceable Through Title V Permit

31. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455, 5.2.1 & 5.2.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

32. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7] Federally Enforceable Through Title V Permit

33. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8] Federally Enforceable Through Title V Permit

34. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 & 5.2.10] Federally Enforceable Through Title V Permit

35. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11] Federally Enforceable Through Title V Permit

36. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12] Federally Enforceable Through Title V Permit

37. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455, 5.2.13] Federally Enforceable Through Title V Permit

38. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1, 5.3.2 & 5.3.3] Federally Enforceable Through Title V Permit

39. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455, 5.3.4] Federally Enforceable Through Title V Permit

40. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455, 5.3.5] Federally Enforceable Through Title V Permit

41. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

42. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455, 5.3.7] Federally Enforceable Through Title V Permit

43. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1] Federally Enforceable Through Title V Permit

44. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455, 5.4.3 & 5.4.4] Federally Enforceable Through Title V Permit

45. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455, 5.4.5] Federally Enforceable Through Title V Permit

46. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit

47. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455, 6.1.2 & 6.1.4] Federally Enforceable Through Title V Permit

48. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455, 6.2.1] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

49. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455, 6.2.3] Federally Enforceable Through Title V Permit

50. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455, 6.3.1] Federally Enforceable Through Title V Permit

51. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455 6.3.2] Federally Enforceable Through Title V Permit

52. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455, 6.2.2, 6.2.3 & 6.2.4] Federally Enforceable Through Title V Permit

53. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455, 6.4] Federally Enforceable Through Title V Permit

54. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455, 6.4.1; 40 CFR 60.485(b)] Federally Enforceable Through Title V Permit

55. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455, 6.4.2] Federally Enforceable Through Title V Permit

56. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455, 6.4.3] Federally Enforceable Through Title V Permit

57. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455, 6.4.4] Federally Enforceable Through Title V Permit

58. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455, 6.4.5] Federally Enforceable Through Title V Permit

59. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4454, 4.0] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

60. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H2S) in excess of 0.1 gr/dscf (230 mg/dscm) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit

61. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit

62. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H2S as measured by the H2S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO2 as measured by the SO2 continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit

63. Operator shall determine compliance with the H2S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit

64. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit

65. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit

66. Fuel gas sulfur content shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

67. Permittee shall determine sulfur content of combusted gas annually. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

68. Pursuant to Rule 4320, the operator shall pay an annual emission fee to the District for NOx emissions from combustion unit(s) for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

69. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit

70. Source testing to measure NOx and CO emissions from Heater 11-H12 shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

71. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit

72. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306 (amended October 16, 2008). [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

73. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

74. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

75. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

76. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

77. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

78. Source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

79. The stack concentration of NOx (as NO2), CO, and O2 for unit 10-H2 shall be measured at least on a monthly basis using District approved portable analyzers. [District Rules 4305, 4306, and 4320]] Federally Enforceable Through Title V Permit

80. The stack concentration of CO and O2 shall be measured at least on a monthly basis using District approved portable analyzers. At the time of the CO measurement, the stack concentration of NOx shall also be measured; using either the NOx CEM or District approved portable analyzer. If the NOx CEM is used, the O2 measurement from the CEM shall be used for any needed corrections to the NOx measurement, and the CO measurement must be taken in the same area of the stack as the CEM sample. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

81. If the CO concentrations, as measured by the portable analyzer, exceed the allowable emissions rate, the permittee shall notify the District and take corrective action within one (1) hour after detection. If the portable analyzer readings continue to exceed the allowable emissions rate, the permittee shall conduct an emissions test within 60 days, utilizing District-approved test methods, to demonstrate compliance with the applicable emissions limits. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

82. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2, the O2 concentration, and method of NOx measurement (CEM or portable analyzer). The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. These records shall be retained at the facility for a period of no less than 5 years and shall be made available for District inspection upon request. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

83. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-52-18 **ISSUANCE DATE:** 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 28 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 86.8 MMBTU/HR CATALYTIC REFORMING UNIT #26 INCLUDING 6 HEATERS, HYDROSULFURIZATION ASSEMBLY; CATALYTIC ASSEMBLY, DEPENTANIZER SERVICE TOWER (26-V13), REBOILER STEAM CONDENSATE BALANCE DRUM (26-D31), 2 FEED/BOTTOMS EXCHANGERS (26-E45 A/B), 2 OVERHEAD CONDENSERS (26-E46 A/B), DISTILLATE COOLER (26-E47), 2 BOTTOMS PUMPS (26-P37 A/B), AND 2 REFLUX PUMPS (26 P38 A/B) , DESULFURIZER REFORMER RECYCLE COMPRESSORS (26-C11, 26-C12, 26-C13), STRIPPER GAS COMPRESSOR (26-C14), DESULFURIZER BOOSTER COMPRESSOR (26-C15), AND MISC. DRUMS, FIN FANS, EXCHANGERS, AND PIPING: RETROFIT HEATER 26-H13 WITH LOW NOX BURNERS AND REMOVE DORMANT STATUS; TRANSFER HEATER 26-H17 TO PERMIT S-33-56 AND RENAME HEATER 21-H21; UPGRADE PUMPS, HEAT EXCHANGERS AND FIN FANS; MODIFY PIPING

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-52-18 : Mar 19 2015 8:32AM – RINALDIR : Joint Inspection Required with RINALDIR

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5. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

6. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]

9. Heater 26H12 shall not be operated for any reason until necessary retrofits are made to comply with the applicable requirements of District Rule. [District Rules 4305, 4306 and 4351] Federally Enforceable Through Title V Permit

10. No modifications to heater 26H12 shall be performed without an Authority to Construct for that modification(s), except for changes specified in the condition below. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

11. The fuel supply line(s) shall be physically disconnected from heater 26H12. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

12. Fugitive volatile organic compound (VOC) emissions shall not exceed 761.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Heater 26H12 emission rates shall not exceed NOx (as NO2): 0.18 lb/MMBtu or 147 ppmvd @ 3% O2, and CO: 400 ppmvd @ 3% O2. Emission limits are on a one hour average. [District Rules 2201, 4305, and 4351] Federally Enforceable Through Title V Permit

16. Emissions from heater 26H11A/B shall not exceed any of the following limits: 0.0364 lb/MMBtu or 30 ppmvd NOx @ 3% O2, see {4357} at end , 0.0076 lb-PM10/MMBtu, 400 ppmvd CO @ 3% O2 or 0.296 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4301, 4308 4306 and 4320] Federally Enforceable Through Title V Permit

17. Emissions from heaters 26H13 and 26H15 shall not exceed any of the following limits: 0.036 lb/MMBtu or 30 ppmvd NOx @ 3% O2, 0.0076 lb-PM10/MMBtu, 200 ppmvd CO @ 3% O2 or 0.148 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4301, 4306, 4308 and 4320] Federally Enforceable Through Title V Permit

18. Fuel gas sulfur content (as H2S) shall not exceed 0.10 gr/dscf (160 ppmv) over a three-hour rolling average and shall be continuously monitored and recorded. [NSPS 40 CFR Part 60, Subpart J] Federally Enforceable Through Title V Permit

19. Permittee shall meet all applicable requirements of NSPS Subparts A ,J, and GGGa. [NSPS 40 CFR Part 60, Subparts A, J, and GGGa] Federally Enforceable Through Title V Permit

20. Spent caustics and waste liquids shall be disposed of in a manner preventing the creation of odors. [District Rule 4102]

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21. Leaks from valves and connectors associated with depentanizer (26-V13) fractionation trays, reboiler steam condensate balance drum (26-D31), 2 feed/bottoms exchangers (26-E45 A/B), 2 overhead condensers (26-E46 A/B), distillate cooler (26-E47), 2 bottoms pumps (26-P37 A/B), 2 reflux pumps (26 P38 A/B) and subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured one (1) cm from potential source. [District Rule 2201] Federally Enforceable Through Title V Permit

22. Leaks from seals on pumps 26-P37A/B and 26-P38A/B and subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured one (1) cm from potential source. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201 and 4301] Federally Enforceable Through Title V Permit

25. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rule 4301] Federally Enforceable Through Title V Permit

26. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit

27. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H2S as measured by the H2S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO2 as measured by the SO2 continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit

28. Operator shall determine compliance with the H2S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit

29. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit

30. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit

31. For heaters 26H11A/B, 26H13 and 26H15, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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32. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

33. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

34. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

35. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

36. Source testing to measure NOx and CO emissions from heaters 26H11A/B, 26H13 and 26H15 while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

37. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

38. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

39. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

40. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

41. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

42. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

43. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

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44. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

45. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

46. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

47. All units in a group for which representative units are source for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

48. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

49. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 4306] Federally Enforceable Through Title V Permit

50. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081(amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 4306] Federally Enforceable Through Title V Permit

51. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit

52. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520] Federally Enforceable Through Title V Permit

53. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520 and 4301] Federally Enforceable Through Title V Permit

54. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rules 2520 and 4320] Federally Enforceable Through Title V Permit

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55. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6C or ARB Method 100. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

56. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using EPA Method 11or EPA Method 15, ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rules 2520 and 4320] Federally Enforceable Through Title V Permit

57. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

58. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H2S) in excess of 0.1 gr/dscf (230 mg/dscm). [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit

59. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit

60. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit

61. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

62. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

63. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

64. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

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65. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

66. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

67. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

68. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

69. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit

70. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit

71. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit

72. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit

73. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

74. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455]

75. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

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76. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

77. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

78. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit

79. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit

80. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit

81. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit

82. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit

83. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit

84. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

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85. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit

86. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit

87. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit

88. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit

89. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit

90. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit

91. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit

92. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit

93. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit

94. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

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95. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4455] Federally Enforceable Through Title V Permit

96. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGGa. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484a. [40 CFR 60.592a(c)] Federally Enforceable Through Title V Permit

97. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and (f) and 40 CFR 60.482-2a(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 2,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2a(a) and (b)] Federally Enforceable Through Title V Permit

98. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)] Federally Enforceable Through Title V Permit

99. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)] Federally Enforceable Through Title V Permit

100. Any PLLS that is designated, as described in 40 CFR 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e)] Federally Enforceable Through Title V Permit

101. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)] Federally Enforceable Through Title V Permit

102. Any pump in PLLS that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(d)(4) through (6) if: 1). The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2a(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)] Federally Enforceable Through Title V Permit

103. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482a-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)] Federally Enforceable Through Title V Permit

104. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(a)] Federally Enforceable Through Title V Permit

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105. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9a. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(b)] Federally Enforceable Through Title V Permit

106. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4a(c)] Federally Enforceable Through Title V Permit

107. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4a(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9a. [40 CFR 60.482-4a(d)] Federally Enforceable Through Title V Permit

108. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1), (2), (3), and (4). [40 CFR 60.482-5a(a), (b), and (c)] Federally Enforceable Through Title V Permit

109. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1a(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6a(a) and (c)] Federally Enforceable Through Title V Permit

110. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6a(b)] [District Rule] Federally Enforceable Through Title V Permit

111. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)] Federally Enforceable Through Title V Permit

112. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)] Federally Enforceable Through Title V Permit

113. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c) and (f). A leak is detected if an instrument reading of 500 ppm or greater is measured. [40 CFR 60.482-7a(a) and (b] Federally Enforceable Through Title V Permit

114. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7a(c)] Federally Enforceable Through Title V Permit

115. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)] Federally Enforceable Through Title V Permit

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116. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f)] Federally Enforceable Through Title V Permit

117. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7a(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7a(g)] Federally Enforceable Through Title V Permit

118. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 and was constructed on or before January 5, 1981; or has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator. 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7a(h)] Federally Enforceable Through Title V Permit

119. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a as an alternative to the requirements in 40 CFR 60.482-7a. [40 CFR 60.592a(b)] Federally Enforceable Through Title V Permit

120. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8a(a) and (b), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

121. When a leak is detected in pumps and valves in heavy liquid service, and pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7a(e). [40 CFR 60.482-8a(c) and (d) , 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

122. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10a(b)] Federally Enforceable Through Title V Permit

123. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10a(c)] Federally Enforceable Through Title V Permit

124. Flares used to comply with Subpart GGGa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)] Federally Enforceable Through Title V Permit

125. Owners or operators of control devices used to comply with the provisions of Subpart GGGa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)] Federally Enforceable Through Title V Permit

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126. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system used to comply with the provisions of Subpart GGGa shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10a(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10a(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10a(f) and (g)] Federally Enforceable Through Title V Permit

127. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10a(h)] Federally Enforceable Through Title V Permit

128. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)] Federally Enforceable Through Title V Permit

129. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)] Federally Enforceable Through Title V Permit

130. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)] Federally Enforceable Through Title V Permit

131. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10a(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10a(l)] Federally Enforceable Through Title V Permit

132. Closed vent systems and control devices used to comply with provisions of Subpart GGGa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)] Federally Enforceable Through Title V Permit

133. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)] Federally Enforceable Through Title V Permit

134. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring. A calibration drift assessment shall be performed, at a minimum, at the end of each Method 21 monitoring day, per 60.485a(b)(2). [40 CFR 60.485a(b)] Federally Enforceable Through Title V Permit

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135. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485a(c)] Federally Enforceable Through Title V Permit

136. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485a(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485a(d)] Federally Enforceable Through Title V Permit

137. The owner or operator shall demonstrate that equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 degrees C (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)] Federally Enforceable Through Title V Permit

138. Samples used in conjunction with 40 CFR 60.485a(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485a(f)] Federally Enforceable Through Title V Permit

139. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485a(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485a(g)] Federally Enforceable Through Title V Permit

140. An owner or operator of more than one affected facility subject to the provisions Subpart GGGa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)] Federally Enforceable Through Title V Permit

141. The owner or operator shall record the following information for each monitoring event required by §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification; (ii) Operator identification; (iii) Equipment identification; (iv) Date of monitoring; (v) Instrument reading. [40 CFR 60.486a(a)(3)] Federally Enforceable Through Title V Permit

142. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7a(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486a(b)] Federally Enforceable Through Title V Permit

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143. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number (except when indications of liquids dripping from a pump are designated as a leak); 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) The maximum instrument reading measured by the methods specified in 40 CFR 60.485a(a) at the time the leak is successfully repaired or determined to be nonrepairable (except when a pump is repaired by eliminating indicates of liquids dripping); 5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2520] Federally Enforceable Through Title V Permit

144. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)] Federally Enforceable Through Title V Permit

145. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGGa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f) shall be signed by the owner or operator, or other mechanism as established with the permitting authority; 3) A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with §60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr; 7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 8) Method 21 monitoring instrument calibration records including (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value per section 10.1 of Method 21; (v) Results of each calibration drift assessment required by §60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 9) The connector monitoring schedule for each process unit as specified in §60.482-11a(b)(3)(v); and 10) Records of each release from a pressure relief device subject to §60.482-4a. [40 CFR 60.486a(e)] Federally Enforceable Through Title V Permit

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146. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connectors stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486a(f)] Federally Enforceable Through Title V Permit

147. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)] Federally Enforceable Through Title V Permit

148. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)] Federally Enforceable Through Title V Permit

149. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480a(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486a(i)] Federally Enforceable Through Title V Permit

150. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486a(j)] Federally Enforceable Through Title V Permit

151. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGGa. [40 CFR 60.486a(k)] Federally Enforceable Through Title V Permit

152. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in §60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in §60.482-11a(d), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)] Federally Enforceable Through Title V Permit

153. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)] Federally Enforceable Through Title V Permit

154. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGGa except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487a(e)] Federally Enforceable Through Title V Permit

155. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

156. Compressors are exempt from the standards of Subpart GGGa if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment to demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593a(b)] Federally Enforceable Through Title V Permit

157. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3a (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3a(a), (b), (c), (d), (e), and (h). [40 CFR 60.593a(c)] Federally Enforceable Through Title V Permit

158. An owner or operator may use the following provision in addition to 40 CFR 60.485a(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 93, 95, or 96. [40 CFR 60.593a(d)] Federally Enforceable Through Title V Permit

159. Connectors in gas/vapor or light liquid service are exempt from the requirements in 40 CFR 60.482-11a, provided the owner or operator complies with 40 CFR 60.482-8a for all connectors, not just those in heavy liquid service. [40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

160. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)] Federally Enforceable Through Title V Permit

161. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGGa. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit

162. Fuel gas sulfur content shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

163. Permittee shall determine sulfur content of combusted gas annually. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

164. Pursuant to Rule 4320, the operator shall pay an annual emission fee to the District for NOx emissions from combustion unit(s) for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

165. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit

166. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-56-30 **ISSUANCE DATE:** 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 28 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF HYDROCRACKER UNIT #21 INCLUDING 9 HEATERS , CATALYTIC ASSEMBLY, HYDROGEN COMPRESSOR/RECYCLE COMPRESSORS 21-C11A/B AND 21-C12A/B, HYDROGEN BOOSTER COMPRESSOR 21-C15, MAKE-UP HYDROGEN BOOSTER COMPRESSORS 21-C17 AND 21-C18, AND MISC AIR COOLERS, TOWERS, TANKS, EXCHANGERS , DRUMS, AND PUMPS - AREA 2: ADDITION OF REACTOR AND ASSOCIATED EQUIPMENT, INCLUDING RECYCLE COMPRESSOR AND HYDROGEN MAKE UP COMPRESSOR; NEW PUMP; MODIFY RERUN COLUMN (21-V14); PIPING MODIFICATIONS; TRANSFER HEATER 26-H17 FROM PERMIT S-33-52, INSTALL INDUSTRIAL COMBUSTION AHE-3000, MODEL LNDG 300-6 LOW NOX BURNERS (OR DISTRICT APPROVED EQUIVALENT) ON 26-H17, AND RENAME HEATER 26-H17 TO 21-H21 FOR A TOTAL OF 10 HEATERS

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

S-33-56-30 : Mar 19 2015 8:32AM – RINALDIR : Joint Inspection Required with RINALDIR

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4. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

6. No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201] Federally Enforceable Through Title V Permit

7. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit

9. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

10. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

11. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

13. Fugitive volatile organic compound (VOC) emissions shall not exceed 136.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Hydrocracker unit shall include two 40.0 MMBtu/hr charge heaters (21H11 and 21H12), two 18.1 MMBtu/hr heaters (21H13 and 21H14), two 11.4 MMBtu/hr heaters (21H15 and 21H16), one 27.8 MMBtu/hr heater (21H17), one 34.6 MMBtu/hr heater (21H18), one 65.0 MMBtu/hr heater (21H20), one 30 MMBtu/hr heater (21H21), catalytic assembly, miscellaneous air coolers, heat exchangers, drums, pumps, piping, and vessels. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Firing rate of heater 21H20 shall not exceed 65.0 MMBtu/hr. [District Rule 2201 and 4306] Federally Enforceable Through Title V Permit

18. Continuous records of heater 21H20's firing rate, including volumetric fuel consumption rate (corrected for temperature) and hhv of fuel burned shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Except during startup and shutdown, heater 21H18 emission rates shall not exceed the following: NOx (as NO2) 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, CO: 0.075 lb/MMBtu or 100 ppmv @ 3% O2, VOC: 0.005 lb/MMBtu, and PM10: 0.014 lb/MMBtu. [District NSR Rule, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. Except during startup and shutdown, heater 21H20 emission rates shall not exceed NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, and CO: 400 ppmv @ 3% O2. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

21. Except during startup and shutdown, heater 21H11 emission rates shall not exceed NOx (as NO2) 30 ppmvd @ 3% O2, CO: 100 ppmvd @ 3% O2, VOC: 0.003 lb/MMBtu, and PM10: 0.014 lb/MMBtu. [District NSR Rule, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

22. Except during startup and shutdown, heater 21H12 emission rates shall not exceed any of the following: NOx (as NO2): 30 ppmv @ 3% O2, CO: 100 ppmvd @ 3% O2, VOC: 0.003 lb/MMBtu, PM10: 0.014 lb/MMBtu. [District NSR Rule, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

23. Except during startup and shutdown, heaters 21H13 through 21H17 emission rates shall not exceed: NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, CO: 400 ppmvd @ 3% O2, VOC: 0.0055 lb/MMBtu, PM10: 0.0076 lb/MMBtu. [District NSR Rule, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

24. Except during startup and shutdown, heater 21H21 emission rates shall not exceed any of the following: NOx (as NO2): 24 ppmv @ 3% O2, CO: 200 ppmvd @ 3% O2, VOC: 0.0054 lb/MMBtu, PM10: 0.0075 lb/MMBtu. [District Rules 2201, 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

25. Emission rates from heater 21H11 shall not exceed any of the following: PM10: 13.4 lb/day, SOx (as SO2): 27.5 lb/day, VOC: 2.9 lb/day, NOx (as NO2): 34.6 lb/day, or CO: 72.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

26. Emission rates from heater 21H12 shall not exceed any of the following: PM10: 13.4 lb/day, SOx (as SO2): 27.5 lb/day, VOC: 2.9 lb/day, NOx (as NO2): 34.6 lb/day, or CO: 72.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

27. Emission rates from heater 21H13 shall not exceed any of the following: PM10: 3.3 lb/day, SOx (as SO2): 12.4 lb/day, VOC: 2.4 lb/day, NOx (as NO2): 36.9 lb/day or 5,694 lb/year, or CO: 130.3 lb/day or 10,655 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Emission rates from heater 21H14 shall not exceed any of the following: PM10: 3.3 lb/day, SOx (as SO2): 12.4 lb/day, VOC: 2.4 lb/day, NOx (as NO2): 36.9 lb/day or 5,694 lb/year, or CO: 130.3 lb/day or 10,655 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Emission rates from heater 21H15 shall not exceed any of the following: PM10: 2.1 lb/day, SOx (as SO2): 7.8 lb/day, VOC: 1.5 lb/day, NOx (as NO2): 23.3 lb/day or 3,577 lb/year, or CO: 82.1 lb/day or 6,711 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

30. Emission rates from heater 21H16 shall not exceed any of the following: PM10: 2.1 lb/day, SOx (as SO2): 7.8 lb/day, VOC: 1.5 lb/day, NOx (as NO2): 23.3 lb/day or 3,577 lb/year, or CO: 82.1 lb/day or 6,711 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

31. Emission rates from heater 21H17 shall not exceed any of the following: PM10: 5.1 lb/day, SOx (as SO2): 19.1 lb/day, VOC: 3.3 lb/day, NOx (as NO2): 56.7 lb/day or 8,760 lb/year, or CO: 200.2 lb/day or 16,365 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

32. Emission rates from heater 21H18 shall not exceed any of the following: PM10: 6.3 lb/day, SOx (as SO2): 23.7 lb/day, VOC: 4.2 lb/day, NOx (as NO2): 70.6 lb/day, or CO: 62.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

33. Emission rates from heater 21H21 shall not exceed any of the following: PM10: 5.4 lb/day, SOx (as SO2): 8.6 lb/day, VOC: 3.9 lb/day, NOx (as NO2): 21.0 lb/day, or CO: 106.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

34. For heater 21H11 through 21H18, 21H20, and 21H21 duration of start-up and shutdown shall not exceed 2 hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

35. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rules 2080, 4305, and 4306] Federally Enforceable Through Title V Permit

36. For heaters 21H13, 21H14, 21H15, 21H16, 21H17, 21H18, 21H20, and 21H21, compliance with annual CO emission rate shall be determined by using CO emission concentrations obtained during monthly monitoring as required in this permit, fuel use, fuel heating value, and stack gas flow rate. Records of calculated CO emissions shall be maintained for a period of five years and made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

37. For each heater, permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

38. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

39. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

40. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

41. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306 (amended October 16, 2008). [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

42. Source testing to measure natural gas-combustion NOx and CO emissions from each heater shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

43. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

44. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

45. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

46. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, 4351] Federally Enforceable Through Title V Permit

47. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

48. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

49. Permittee shall meet all applicable NSPS requirements, including Subparts A, J and GGGa. [NSPS 40 CFR Part 60, Subparts A & J] Federally Enforceable Through Title V Permit

50. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

51. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit

52. Valves and connectors subject to Rule 4455 installed for production of low sulfur diesel shall not leak in excess of 100 ppmv above background when measured one (1) cm from the source. [District Rule 2201] Federally Enforceable Through Title V Permit

53. Pump and compressor seals subject to Rule 4455 that were installed for production of low sulfur diesel shall not leak in excess of 500 ppmv above background when measured one (1) cm from the source. [District Rule 2201] Federally Enforceable Through Title V Permit

54. Sulfur content (as H2S) of fuel supplied to all heaters shall not exceed 0.1 gr/dscf (162 ppmv) based on a three hour rolling average and shall be continuously monitored and recorded. [NSPS 40 CFR Part 60, Subparts A & J] Federally Enforceable Through Title V Permit

55. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

56. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

57. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

58. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6C or ARB Method 100. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

59. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using EPA Method 11 or EPA Method 15, ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

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60. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2.1; 4306, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

61. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2] Federally Enforceable Through Title V Permit

62. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit

63. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit

64. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

65. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

66. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

67. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

68. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

69. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

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70. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

71. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

72. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit

73. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit

74. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit

75. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit

76. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

77. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455]

78. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

79. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

80. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

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81. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit

82. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit

83. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit

84. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit

85. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit

86. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit

87. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

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88. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit

89. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit

90. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit

91. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit

92. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit

93. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit

94. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit

95. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit

96. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit

97. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

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98. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4455] Federally Enforceable Through Title V Permit

99. Permittee shall meet all applicable requirements of NSPS Subparts A, J, and GGGa. [District Rule 4001] Federally Enforceable Through Title V Permit

100. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGGa. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484a. [40 CFR 60.592a(c)] Federally Enforceable Through Title V Permit

101. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and (f) and 40 CFR 60.482-2a(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 2,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2a(a) and (b)] Federally Enforceable Through Title V Permit

102. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)] Federally Enforceable Through Title V Permit

103. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)] Federally Enforceable Through Title V Permit

104. Any PLLS that is designated, as described in 40 CFR 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e)] Federally Enforceable Through Title V Permit

105. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)] Federally Enforceable Through Title V Permit

106. Any pump in PLLS that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(d)(4) through (6) if: 1). The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2a(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)] Federally Enforceable Through Title V Permit

107. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482a-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)] Federally Enforceable Through Title V Permit

108. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(a)] Federally Enforceable Through Title V Permit

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109. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9a. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(b)] Federally Enforceable Through Title V Permit

110. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4a(c)] Federally Enforceable Through Title V Permit

111. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4a(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9a. [40 CFR 60.482-4a(d)] Federally Enforceable Through Title V Permit

112. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1), (2), (3), and (4). [40 CFR 60.482-5a(a), (b), and (c)] Federally Enforceable Through Title V Permit

113. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1a(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6a(a) and (c)] Federally Enforceable Through Title V Permit

114. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6a(b)] Federally Enforceable Through Title V Permit

115. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)] Federally Enforceable Through Title V Permit

116. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)] Federally Enforceable Through Title V Permit

117. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c) and (f). A leak is detected if an instrument reading of 500 ppm or greater is measured. [40 CFR 60.482-7a(a) and (b] Federally Enforceable Through Title V Permit

118. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7a(c)] Federally Enforceable Through Title V Permit

119. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)] Federally Enforceable Through Title V Permit

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120. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f)] Federally Enforceable Through Title V Permit

121. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7a(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7a(g)] Federally Enforceable Through Title V Permit

122. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 and was constructed on or before January 5, 1981; or has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator. 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7a(h)] Federally Enforceable Through Title V Permit

123. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a as an alternative to the requirements in 40 CFR 60.482-7a. [40 CFR 60.592a(b)] Federally Enforceable Through Title V Permit

124. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8a(a) and (b), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

125. When a leak is detected in pumps and valves in heavy liquid service, and pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7a(e). [40 CFR 60.482-8a(c) and (d), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

126. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10a(b)] Federally Enforceable Through Title V Permit

127. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10a(c)] Federally Enforceable Through Title V Permit

128. Flares used to comply with Subpart GGGa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)] Federally Enforceable Through Title V Permit

129. Owners or operators of control devices used to comply with the provisions of Subpart GGGa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)] Federally Enforceable Through Title V Permit

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130. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system used to comply with the provisions of Subpart GGGa shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10a(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10a(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10a(f) and (g)] Federally Enforceable Through Title V Permit

131. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10a(h)] Federally Enforceable Through Title V Permit

132. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)] Federally Enforceable Through Title V Permit

133. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)] Federally Enforceable Through Title V Permit

134. Any parts of the closed veot system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)] Federally Enforceable Through Title V Permit

135. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(b) during which no leaks arc detected, a record that the inspectioo was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10a(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10a(l)] Federally Enforceable Through Title V Permit

136. Closed vent systems and control devices used to comply with provisions of Subpart GGGa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)] Federally Enforceable Through Title V Permit

137. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)] Federally Enforceable Through Title V Permit

138. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of no more than 2,000 ppm greater than the leak definition coocentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring. A calibration drift assessment shall be performed, at a minimum, at the end of each Method 21 monitoring day, per 60.485a(b)(2). [40 CFR 60.485a(b)] Federally Enforceable Through Title V Permit

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139. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485a(c)] Federally Enforceable Through Title V Permit

140. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485a(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485a(d)] Federally Enforceable Through Title V Permit

141. The owner or operator shall demonstrate that equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 degrees C (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(c)] Federally Enforceable Through Title V Permit

142. Samples used in conjunction with 40 CFR 60.485a(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485a(f)] Federally Enforceable Through Title V Permit

143. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485a(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485a(g)] Federally Enforceable Through Title V Permit

144. An owner or operator of more than one affected facility subject to the provisions Subpart GGGa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)] Federally Enforceable Through Title V Permit

145. The owner or operator shall record the following information for each monitoring event required by §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification; (ii) Operator identification; (iii) Equipment identification; (iv) Date of monitoring; (v) Instrument reading. [40 CFR 60.486a(a)(3)] Federally Enforceable Through Title V Permit

146. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7a(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486a(b)] Federally Enforceable Through Title V Permit

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147. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number (except when indications of liquids dripping from a pump are designated as a leak); 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) The maximum instrument reading measured by the methods specified in 40 CFR 60.485a(a) at the time the leak is successfully repaired or determined to be nonrepairable (except when a pump is repaired by eliminating indicates of liquids dripping); 5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2520] Federally Enforceable Through Title V Permit

148. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)] Federally Enforceable Through Title V Permit

149. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGGa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f) shall be signed by the owner or operator, or other mechanism as established with the permitting authority; 3) A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with §60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr; 7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 8) Method 21 monitoring instrument calibration records including (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value per section 10.1 of Method 21; (v) Results of each calibration drift assessment required by §60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 9) The connector monitoring schedule for each process unit as specified in §60.482-11a(b)(3)(v); and 10) Records of each release from a pressure relief device subject to §60.482-4a. [40 CFR 60.486a(e)] Federally Enforceable Through Title V Permit

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150. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connectors stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486a(f)] Federally Enforceable Through Title V Permit

151. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)] Federally Enforceable Through Title V Permit

152. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)] Federally Enforceable Through Title V Permit

153. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480a(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486a(i)] Federally Enforceable Through Title V Permit

154. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486a(j)] Federally Enforceable Through Title V Permit

155. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGGa. [40 CFR 60.486a(k)] Federally Enforceable Through Title V Permit

156. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in §60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in §60.482-11a(d), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)] Federally Enforceable Through Title V Permit

157. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)] Federally Enforceable Through Title V Permit

158. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGGa except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487a(e)] Federally Enforceable Through Title V Permit

159. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)] Federally Enforceable Through Title V Permit

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160. Compressors are exempt from the standards of Subpart GGGa if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment to demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593a(b)] Federally Enforceable Through Title V Permit

161. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3a (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3a(a), (b), (c), (d), (e), and (h). [40 CFR 60.593a(c)] Federally Enforceable Through Title V Permit

162. An owner or operator may use the following provision in addition to 40 CFR 60.485a(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 93, 95, or 96. [40 CFR 60.593a(d)] Federally Enforceable Through Title V Permit

163. Connectors in gas/vapor or light liquid service are exempt from the requirements in 40 CFR 60.482-11a, provided the owner or operator complies with 40 CFR 60.482-8a for all connectors, not just those in heavy liquid service. [40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

164. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)] Federally Enforceable Through Title V Permit

165. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H2S) in excess of 0.10 gr/dscf (230 mg/dscm) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit

166. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit

167. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H2S as measured by the H2S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO2 as measured by the SO2 continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit

168. Operator shall determine compliance with the H2S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit

169. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit

170. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit

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171. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGGa. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

172. Fuel gas sulfur content shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

173. Permittee shall determine sulfur content of combusted gas annually. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

174. Pursuant to Rule 4320, the operator shall pay an annual emission fee to the District for NOx emissions from combustion unit(s) for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

175. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit

176. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-63-13 **ISSUANCE DATE:** 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 28 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF SOUR WATER AND OILY WASTEWATER OPERATION INCLUDING HYDROCRACKER AND PHENOLIC SOUR WATER STRIPPING, PHOSAM UNIT, OIL WASTEWATER CLASSIFIER (83D-13), AND MISCELLANEOUS TANKS AND ASSOCIATED PIPING - AREA 2: MODIFY PROCESS TO OPERATE UNIT 23 AS A SOUR WATER STRIPPER DIRECTING ACID GAS FROM THE STRIPPER TO THE SULFUR PLANT (UNIT 17); MODIFY PIPING FOR SOUR WATER STRIPPER (23-V4) AND HYDROCRACKER WATER STRIPPER (23-V5) AND THEIR ANCILLARY EQUIPMENT (PUMPS, EXCHANGERS AND TANK); UPGRADE ACID GAS KO DRUM (23-D5)

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Fugitive volatile organic compound (VOC) emissions shall not exceed 0.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-63-13 : Mar 19 2015 8:32AM – RINALDIR : Joint Inspection Required with RINALDIR

5. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Off-gas from adsorber and stripper columns shall be processed in sulfur recovery plants. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Oil skims tank shall receive liquids exclusively from classifier tank #86-J-62. Liquid throughput for oil skims tank shall not exceed 750 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit

8. True vapor pressure (TVP) of any liquid placed, stored, or held in the oil skims tank or the classifier tank #86-J-62 shall not exceed 1.5 psia at storage temperature. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

9. Permittee shall maintain records of daily liquid throughput for the oil skims tank. [District Rule 1070] Federally Enforceable Through Title V Permit

10. Pressure/vacuum relief valve on oil skims tank shall be set to 0.5 oz vacuum and 1 oz. pressure. [District Rule 2201] Federally Enforceable Through Title V Permit

11. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 and 4455] Federally Enforceable Through Title V Permit

12. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455, 4.1 & 4.2] Federally Enforceable Through Title V Permit

13. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1] Federally Enforceable Through Title V Permit

14. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2] Federally Enforceable Through Title V Permit

15. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455, 5.1.3.1] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

16. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.1] Federally Enforceable Through Title V Permit

17. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.2] Federally Enforceable Through Title V Permit

18. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455, 5.1.3.2.3] Federally Enforceable Through Title V Permit

19. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455, 5.2.1 & 5.2.2] Federally Enforceable Through Title V Permit

20. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7] Federally Enforceable Through Title V Permit

21. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8] Federally Enforceable Through Title V Permit

22. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 & 5.2.10] Federally Enforceable Through Title V Permit

23. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11] Federally Enforceable Through Title V Permit

24. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12] Federally Enforceable Through Title V Permit

25. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455, 5.2.13] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

26. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1, 5.3.2 & 5.3.3] Federally Enforceable Through Title V Permit

27. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455, 5.3.4] Federally Enforceable Through Title V Permit

28. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455, 5.3.5] Federally Enforceable Through Title V Permit

29. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6] Federally Enforceable Through Title V Permit

30. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455, 5.3.7] Federally Enforceable Through Title V Permit

31. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1] Federally Enforceable Through Title V Permit

32. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455, 5.4.3 & 5.4.4] Federally Enforceable Through Title V Permit

33. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455, 5.4.5] Federally Enforceable Through Title V Permit

34. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

35. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455, 6.1.2 & 6.1.4] Federally Enforceable Through Title V Permit

36. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455, 6.2.1] Federally Enforceable Through Title V Permit

37. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455, 6.2.3] Federally Enforceable Through Title V Permit

38. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455, 6.3.1] Federally Enforceable Through Title V Permit

39. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455 6.3.2] Federally Enforceable Through Title V Permit

40. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455, 6.2.2, 6.2.3 & 6.2.4] Federally Enforceable Through Title V Permit

41. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455, 6.4] Federally Enforceable Through Title V Permit

42. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455, 6.4.1] Federally Enforceable Through Title V Permit

43. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455, 6.4.2] Federally Enforceable Through Title V Permit

44. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455, 6.4.3] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

45. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455, 6.4.4] Federally Enforceable Through Title V Permit

46. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455, 6.4.5] Federally Enforceable Through Title V Permit

47. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4454, 4.0] Federally Enforceable Through Title V Permit

48. A person shall not use any compartment of any vessel or device operated for the recovery of oil or tar from effluent water, from any equipment which processes, refines, stores or handles petroleum or coal tar products unless such compartments are equipped with one of the following vapor loss control devices, except when gauging or sampling is taking place: 1) A solid cover with all openings sealed and totally enclosing the liquid contents of the compartment, except for such breathing vents as are structurally necessary, 2) A floating pontoon or double-deck type cover, equipped with closure seals that have no holes or tears, installed and maintained so that gaps between the compartment wall and seal shall not exceed one-eighth (1/8) inch for an accumulative length of 97 percent of the perimeter of the tank, and shall not exceed one-half (1/2) inch for an accumulative length of the remaining three (3) percent of the perimeter of the tank. No gap between the compartment wall and the seal shall exceed one-half (1/2) inch, or 3) A vapor recovery system with a combined collection and control efficiency of at least 90 percent by weight. [District Rule 4625, 5.1] Federally Enforceable Through Title V Permit

49. Any gauging and sampling device in the compartment cover shall be equipped with a cover or lid. The cover shall be in a closed position at all times, except when the device is in actual use. [District Rule 4625, 5.2] Federally Enforceable Through Title V Permit

50. All wastewater separator forbays shall be covered. [District Rule 4625, 5.3] Federally Enforceable Through Title V Permit

51. Skimmed oil or tar removed from wastewater separating devices shall be either charged to process units with feed or transferred to a container with a control system with at least 90 percent control efficiency by weight. [District Rule 4625, 5.4] Federally Enforceable Through Title V Permit

52. Efficiency of VOC control device shall be determined by EPA Test Method 25 and analysis of halogenated exempt compounds shall be by ARB Method 422. [District Rule 4625, 6.1.1] Federally Enforceable Through Title V Permit

53. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-112-5 **ISSUANCE DATE:** 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 28 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 4,032,000 GALLON FLOATING ROOF PETROLEUM STORAGE TANK #96M01 WITH METALLIC SHOE PRIMARY SEAL AND WIPER SECONDARY SEAL: INSULATE TANK AND INSTALL STEAM COILS, MIXER, AND NOZZLES

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Gaps between the tank shell and the primary seal shall not exceed 1-1/2 inches. [District Rule 4623, 5.3.2.1.1] Federally Enforceable Through Title V Permit
4. The cumulative length of all primary seal gaps greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1] Federally Enforceable Through Title V Permit
5. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1] Federally Enforceable Through Title V Permit
6. No continuous gap greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623, 5.3.2.1.1] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-112-5 : Mar 19 2015 8:22AM – RINALDIR : Joint Inspection Required with RINALDIR

7. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623, 5.3.2.1.2] Federally Enforceable Through Title V Permit

8. The cumulative length of all secondary seal gaps greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623, 5.3.2.1.2] Federally Enforceable Through Title V Permit

9. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 24 inches above the stored liquid surface. [District Rule 4623, 5.3.2.1.3] Federally Enforceable Through Title V Permit

10. The maximum gap between the shoe and the tank shell shall be no greater than double the gap allowed by the seal gap criteria for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623, 5.3.2.1.4] Federally Enforceable Through Title V Permit

11. There shall be no tears, holes or openings in the secondary seal or in the primary seal envelope surrounding the annular vapor space enclosed by the roof edge, stored liquid surface, shoe, and seal fabric. [District Rule 4623, 5.3.2.1.5] Federally Enforceable Through Title V Permit

12. The secondary seal shall allow easy insertion of probes of up to 1-1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623, 5.3.2.1.6] Federally Enforceable Through Title V Permit

13. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623, 5.3.2.1.7] Federally Enforceable Through Title V Permit

14. Pressure-vacuum valves shall be set to within ten (10) percent of the maximum allowable working pressure of the roof. [District Rule 4623, 5.2 and 5.5.1] Federally Enforceable Through Title V Permit

15. All openings in the roof used for sampling or gauging, except pressure-vacuum valves, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal, or lid. The cover, seal, or lid shall at all times be in a closed position, with no visible gaps and leak-free, except when the device or appurtenance is in use for sampling or gauging. [District Rule 4623, 5.5.1] Federally Enforceable Through Title V Permit

16. Any roof drain shall be provided with a slotted membrane fabric cover, or equivalent, that covers at least 90% of the area of the opening. [District Rule 4623, 5.5.2.2.5] Federally Enforceable Through Title V Permit

17. The permittee shall keep accurate records of Reid vapor pressure, storage temperature and types of liquids stored, and shall make such records available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

18. True vapor pressure of the stored liquid shall not exceed 11 psia. [District Rule 4623] Federally Enforceable Through Title V Permit

19. Tank organic liquid throughput shall not exceed 192,000 bbl/day. Permittee shall maintain daily records of tank throughput and shall make such records readily available for District inspection upon request. [District Rules 2201 and 1070] Federally Enforceable Through Title V Permit

20. Except for automatic bleeder vents, rim vents, and pressure relief vents, each opening in a non-contact external floating roof shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.2.1] Federally Enforceable Through Title V Permit

21. Except for automatic bleeder vents and rim vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid that shall be maintained in a closed position at all times (i.e., no visible gap) except when in actual use. [District Rule 4623, 5.5.2.2.2] Federally Enforceable Through Title V Permit

22. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623, 5.5.2.2.3] Federally Enforceable Through Title V Permit

23. Rim vents shall be equipped with a gasket and shall be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. [District Rule 4623, 5.5.2.2.4] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

24. External floating roof legs shall be equipped with vapor socks or vapor barriers in order to maintain a gas-tight condition so as to prevent VOC emissions from escaping through the roof leg opening. [District Rule 4623, 5.5.2.2.6] Federally Enforceable Through Title V Permit

25. Solid sampling or gauging wells, and similar fixed projections through a floating roof such as an anti-rotational pipe, shall provide a projection below the liquid surface. The well shall be equipped with a pole wiper and a gasketed cover, seal or lid which shall be in a closed position at all times (i.e., no visible gap) except when the well is in use. The gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed one-half (1/2) inch. [District Rule 4623, 5.5.2.3] Federally Enforceable Through Title V Permit

26. Slotted sampling or gauging wells shall provide a projection below the liquid surface. The well on external floating roof shall be equipped with the following: a sliding cover, a well gasket, a pole sleeve, a pole wiper, and an internal float and float wiper designed to minimize the gap between the float and the well, and provided the gap shall not exceed one-eighth (1/8) inch; or shall be equipped with a well gasket, a zero gap pole wiper seal and a pole sleeve that projects below the liquid surface. The gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed one-eighth (1/8) inch. [District Rule 4623, 5.5.2.4] Federally Enforceable Through Title V Permit

27. The permittee of external floating roof tanks shall make the primary seal envelope available for unobstructed inspection by the APCO on an annual basis at locations selected along its circumference at random by the APCO. In the case of riveted tanks with toroid-type seals, a minimum of eight (8) locations shall be made available; in all other cases, a minimum of four (4) locations shall be made available. If the APCO suspects a violation may exist the APCO may require such further unobstructed inspection of the primary seal as may be necessary to determine the seal condition for its entire circumference. [District Rule 4623 6.1.1] Federally Enforceable Through Title V Permit

28. Permittee shall inspect all floating tanks at least once every 12 months to determine compliance with the requirements of this rule. The actual gap measurements of the floating roof primary and secondary seals shall be recorded. The inspection results shall be submitted to the APCO as specified in Section 6.3.5. [District Rule 4623, 6.1.3.1] Federally Enforceable Through Title V Permit

29. Permittee shall inspect the primary and secondary seals for compliance with the requirements of this rule every time a tank is emptied or degassed. Actual gap measurements shall be performed when the liquid level is static but not more than 48 hours after the tank roof is re-floated. [District Rule 4623, 6.1.3.2] Federally Enforceable Through Title V Permit

30. Permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of Rule 4623. [District Rule 4623, 6.3.5] Federally Enforceable Through Title V Permit

31. Permittee shall maintain the records of the external floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the True Vapor pressure (TVP), API gravity, and type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. The permittee shall keep the records at the facility (or on-site) for a period of five years. The records shall be made available to the APCO upon request. [District Rule 4623, 6.3.7] Federally Enforceable Through Title V Permit

32. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

33. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, or method D5191, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

34. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit

35. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit

36. Operator shall determine the true vapor pressure and API gravity for each petroleum liquid stored in the tank at least once per year in accordance with methods described herein. Determinations shall be made annually during summer and whenever there is a change in the originating source or type of petroleum liquid entering the tank. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. Construction, reconstruction, or modification of this unit was commenced prior to June 11, 1973. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids store in this unit to determine which oil are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

39. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-124-10 **ISSUANCE DATE:** 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 28 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF GAS PLANT #2 INCLUDING AMINE REGENERATION SYSTEM, VOC COALESCER, DRYER SYSTEM, DE-ETHANIZER, DE-PROPANIZER, PIPING TO SRU #1 (PTO #S-33-16) AND MISC. PUMPS, PIPING, DRUMS, EXCHANGERS, AIR COOLERS, AND VESSELS: INSTALL LPG RECOVERY UNIT WITH COMPRESSORS, KNOCK OUT DRUMS, AND PROPANE REFRIGERATION UNIT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Off-gases from HTU #3 desulfurizer stripper (#S-33-52) and HCU debutanizer (#S-33-53) shall be routed to an amine absorber for sulfur removal prior to combustion, except during breakdown conditions pursuant to Rule 1100. [District Rule 2201]
4. All amine regenerator off-gas from this permit unit shall be desulfurized at SRU #1 (S-33-16) and/or SRU #3 (S-33-338), except during breakdown conditions pursuant to Rule 1100. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive volatile organic compound (VOC) emissions shall not exceed 379.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-124-10 : Mar 19 2015 8:32AM -- RINALDIR : Joint Inspection Required with RINALDIR

6. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

8. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit

9. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit

10. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

11. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

12. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

13. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

14. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

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15. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

16. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

17. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

18. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit

19. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit

20. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit

21. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit

22. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

23. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

24. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

25. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

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26. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

27. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit

28. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit

29. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit

30. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit

31. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit

32. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit

33. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

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34. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit

35. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit

36. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit

37. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit

38. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit

39. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit

40. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit

41. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit

42. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit

43. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

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44. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4455] Federally Enforceable Through Title V Permit

45. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGGa. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484a. [40 CFR 60.592a(c)] Federally Enforceable Through Title V Permit

46. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and (f) and 40 CFR 60.482-2a(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 2,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2a(a) and (b)] Federally Enforceable Through Title V Permit

47. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)] Federally Enforceable Through Title V Permit

48. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)] Federally Enforceable Through Title V Permit

49. Any PLLS that is designated, as described in 40 CFR 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e)] Federally Enforceable Through Title V Permit

50. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)] Federally Enforceable Through Title V Permit

51. Any pump in PLLS that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(d)(4) through (6) if: 1). The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2a(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)] Federally Enforceable Through Title V Permit

52. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482a-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)] Federally Enforceable Through Title V Permit

53. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(a)] Federally Enforceable Through Title V Permit

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54. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9a. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(b)] Federally Enforceable Through Title V Permit

55. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4a(c)] Federally Enforceable Through Title V Permit

56. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4a(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9a. [40 CFR 60.482-4a(d)] Federally Enforceable Through Title V Permit

57. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1a(e). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1), (2), (3), and (4). [40 CFR 60.482-5a(a), (b), and (c)] Federally Enforceable Through Title V Permit

58. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1a(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6a(a) and (c)] Federally Enforceable Through Title V Permit

59. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6a(b)] Federally Enforceable Through Title V Permit

60. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)] Federally Enforceable Through Title V Permit

61. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)] Federally Enforceable Through Title V Permit

62. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c) and (f). A leak is detected if an instrument reading of 500 ppm or greater is measured. [40 CFR 60.482-7a(a) and (b] Federally Enforceable Through Title V Permit

63. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7a(c)] Federally Enforceable Through Title V Permit

64. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)] Federally Enforceable Through Title V Permit

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65. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f)] Federally Enforceable Through Title V Permit

66. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7a(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7a(g)] Federally Enforceable Through Title V Permit

67. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 and was constructed on or before January 5, 1981; or has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator. 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7a(h)] Federally Enforceable Through Title V Permit

68. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a as an alternative to the requirements in 40 CFR 60.482-7a. [40 CFR 60.592a(b)] Federally Enforceable Through Title V Permit

69. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8a(a) and (b), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

70. When a leak is detected in pumps and valves in heavy liquid service, and pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7a(e). [40 CFR 60.482-8a(c) and (d), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

71. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10a(b)] Federally Enforceable Through Title V Permit

72. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10a(c)] Federally Enforceable Through Title V Permit

73. Flares used to comply with Subpart GGGa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)] Federally Enforceable Through Title V Permit

74. Owners or operators of control devices used to comply with the provisions of Subpart GGGa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)] Federally Enforceable Through Title V Permit

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75. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system used to comply with the provisions of Subpart GGGa shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10a(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10a(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10a(f) and (g)] Federally Enforceable Through Title V Permit

76. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10a(h)] Federally Enforceable Through Title V Permit

77. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)] Federally Enforceable Through Title V Permit

78. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)] Federally Enforceable Through Title V Permit

79. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)] Federally Enforceable Through Title V Permit

80. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10a(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10a(l)] Federally Enforceable Through Title V Permit

81. Closed vent systems and control devices used to comply with provisions of Subpart GGGa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)] Federally Enforceable Through Title V Permit

82. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)] Federally Enforceable Through Title V Permit

83. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring. A calibration drift assessment shall be performed, at a minimum, at the end of each Method 21 monitoring day, per 60.485a(b)(2). [40 CFR 60.485a(b)] Federally Enforceable Through Title V Permit

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84. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485a(c)] Federally Enforceable Through Title V Permit

85. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485a(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485a(d)] Federally Enforceable Through Title V Permit

86. The owner or operator shall demonstrate that equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 degrees C (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)] Federally Enforceable Through Title V Permit

87. Samples used in conjunction with 40 CFR 60.485a(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485a(f)] Federally Enforceable Through Title V Permit

88. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485a(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485a(g)] Federally Enforceable Through Title V Permit

89. An owner or operator of more than one affected facility subject to the provisions Subpart GGGa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)] Federally Enforceable Through Title V Permit

90. The owner or operator shall record the following information for each monitoring event required by §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification; (ii) Operator identification; (iii) Equipment identification; (iv) Date of monitoring; (v) Instrument reading. [40 CFR 60.486a(a)(3)] Federally Enforceable Through Title V Permit

91. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7a(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486a(b)] Federally Enforceable Through Title V Permit

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92. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number (except when indications of liquids dripping from a pump are designated as a leak); 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) The maximum instrument reading measured by the methods specified in 40 CFR 60.485a(a) at the time the leak is successfully repaired or determined to be nonrepairable (except when a pump is repaired by eliminating indicates of liquids dripping); 5) ``Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2520] Federally Enforceable Through Title V Permit

93. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)] Federally Enforceable Through Title V Permit

94. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGGa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f) shall be signed by the owner or operator, or other mechanism as established with the permitting authority; 3) A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with §60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr; 7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 8) Method 21 monitoring instrument calibration records including (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value per section 10.1 of Method 21; (v) Results of each calibration drift assessment required by §60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 9) The connector monitoring schedule for each process unit as specified in §60.482-11a(b)(3)(v); and 10) Records of each release from a pressure relief device subject to §60.482-4a. [40 CFR 60.486a(e)] Federally Enforceable Through Title V Permit

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95. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connectors stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486a(f)] Federally Enforceable Through Title V Permit

96. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)] Federally Enforceable Through Title V Permit

97. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)] Federally Enforceable Through Title V Permit

98. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480a(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486a(i)] Federally Enforceable Through Title V Permit

99. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486a(j)] Federally Enforceable Through Title V Permit

100. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGGa. [40 CFR 60.486a(k)] Federally Enforceable Through Title V Permit

101. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in §60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in §60.482-11a(d), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)] Federally Enforceable Through Title V Permit

102. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)] Federally Enforceable Through Title V Permit

103. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGGa except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487a(e)] Federally Enforceable Through Title V Permit

104. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

105. Compressors are exempt from the standards of Subpart GGGa if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment to demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593a(b)] Federally Enforceable Through Title V Permit

106. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3a (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3a(a), (b), (c), (d), (e), and (h). [40 CFR 60.593a(c)] Federally Enforceable Through Title V Permit

107. An owner or operator may use the following provision in addition to 40 CFR 60.485a(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 93, 95, or 96. [40 CFR 60.593a(d)] Federally Enforceable Through Title V Permit

108. Connectors in gas/vapor or light liquid service are exempt from the requirements in 40 CFR 60.482-11a, provided the owner or operator complies with 40 CFR 60.482-8a for all connectors, not just those in heavy liquid service. [40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

109. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)] Federally Enforceable Through Title V Permit

110. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H2S) in excess of 0.10 gr/dscf (230 mg/dscm) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit

111. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit

112. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H2S as measured by the H2S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO2 as measured by the SO2 continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit

113. Operator shall determine compliance with the H2S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit

114. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit

115. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

116. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit

117. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 305 lbs, 2nd quarter - 305 lbs, 3rd quarter - 305 lbs, and 4th quarter - 305 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

118. ERC Certificate Number S-3663-1 (or certificates split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-138-7 **ISSUANCE DATE:** 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 462,000 GALLON FIXED ROOF STORAGE TANK #70-T11007: INSTALL HEATING COILS, MIXER, AND ODOR CONTROL

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each petroleum liquid stored in the tank at least once per year in accordance with methods described herein. Determinations shall be made annually during summer (July-September) and whenever there is a change in the originating source or type of petroleum liquid entering the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-138-7 : Mar 18 2016 8:33AM – RINALDIR : Joint Inspection Required with RINALDIR

6. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, or method D5191, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

7. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit

8. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit

9. Operator shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The record shall include the tank identification number, PTO number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. An operator who uses the information in Appendix A of District Rule 4623 (5/19/05) to demonstrate the TVP and/or API gravity of the stored organic liquid shall submit information to the APCO within 45 days after the date that the type of organic liquid stored in the tank has been determined. [District Rule 4623] Federally Enforceable Through Title V Permit

10. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

11. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.113(b)] Federally Enforceable Through Title V Permit

12. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart K. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

13. Construction, reconstruction, or modification of this unit was commenced prior to May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-139-5 **ISSUANCE DATE:** 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 462,000 GALLON FIXED ROOF STORAGE TANK #70-T11008: INSTALL HEATING COILS, MIXER, AND ODOR CONTROL

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each petroleum liquid stored in the tank at least once per year in accordance with methods described herein. Determinations shall be made annually during summer (July-September) and whenever there is a change in the orginiating source or type of petroleum liquid entering the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-139-5 : Mar 19 2015 8:33AM – RINALDIR : Joint Inspection Required with RINALDIR

6. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, or method D5191, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989.. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

7. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit

8. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit

9. Operator shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The record shall include the tank identification number, PTO number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. An operator who uses the information in Appendix A of District Rule 4623 (5/19/05) to demonstrate the TVP and/or API gravity of the stored organic liquid shall submit information to the APCO within 45 days after the date that the type of organic liquid stored in the tank has been determined. [District Rule 4623] Federally Enforceable Through Title V Permit

10. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

11. Construction, reconstruction, or modification of this unit was commenced prior to May 19, 1978 and the TVP of liquid stored in this tank is not equal to or greater than 0.5 psia. Therefore, the requirements of 40 CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

12. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids store in this unit to determine which oil are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-349-18 **ISSUANCE DATE:** 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 28 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF CD HYDRO UNIT #27 INCLUDING 50 MMBTU/HR HEATER 27H1, ACCUMULATOR, FEED BOTTOM EXCHANGERS, CONDENSERS, REFORMATE COOLERS, REBOIL CIRCULATING PUMPS, REFLUX PUMPS, HYDROGEN FEED GUARD BED, HYDROGEN RECYCLE COMPRESSOR (27-C1), BENZENE SATURATION COLUMN (27-V1), & 2 HYDRO SULFUR GUARD DRUMS - AREA 2: ADDITION OF REFORMATE SPLITTER COLUMN (REACTOR 27-V2) AND ASSOCIATED VESSELS, EXCHANGERS, AND PUMPS; PIPING MODIFICATIONS; TRANSFER HEATER 11-H11 FROM PERMIT S-33-49, INSTALL INDUSTRIAL COMBUSTION AHE-3500, MODEL LNDG 420-8 LOW NOX BURNERS (OR DISTRICT APPROVED EQUIVALENT), AND RENAME THE HEATER 27-H2; MODIFY BENZENE SATURATION COLUMN (27-V1)

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-349-18 : Mar 19 2015 8:33AM – RINALDIR : Joint Inspection Required with RINALDIR

4. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters. [District Rule 2201] Federally Enforceable Through Title V Permit

5. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

6. No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201] Federally Enforceable Through Title V Permit

7. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit

9. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

10. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

11. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]

13. Permittee shall meet all applicable requirements of NSPS Subparts A, J, GGGa, and QQQ. [District Rule 4001] Federally Enforceable Through Title V Permit

14. Except during startup and shutdown, heater 27H1 emission rates shall not exceed the following: PM10: 0.014 lb/MMBtu, NOx: 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC: 0.005 lb/MMBtu, and CO: 100 ppmv @ 3% O2. Emission limits are on a one hour average. [District NSR Rule, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

15. Except during startup and shutdown, heater 27H2 emission rates shall not exceed the following: PM10: 0.0075 lb/MMBtu, NOx: 0.029 lb/MMBtu or 24 ppmv @ 3% O2, VOC: 0.005 lb/MMBtu, and CO: 200 ppmv @ 3% O2. Emission limits are on a one hour average. [District Rule 2201, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

16. Emission rates from heater 27H1 shall not exceed any of the following: PM10: 16.8 lb/day, SOx (as SO2): 34.3 lb/day, VOC: 6.0 lb/day, NOx (as NO2): 43.2 lb/day, or CO: 90.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

17. Emission rates from heater 27H2 shall not exceed any of the following: PM10: 6.3 lb/day, SOx (as SO2): 10.0 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 24.5 lb/day, or CO: 124.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

18. For heaters 27H1 and 27H2, duration of start-up and shutdown shall not exceed 2 hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

19. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rules 2080, 4305 and 4306] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. For each heater, permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

25. Source testing to measure natural gas-combustion NOx and CO emissions from each heater shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

27. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

28. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

29. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, 4351] Federally Enforceable Through Title V Permit

30. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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31. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

32. Fugitive volatile organic compound (VOC) emissions shall not exceed 94.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

33. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

34. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

35. Leaks from valves and connectors associated with the LUX sulfur absorbers 27-D3 A/B and subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background. [District Rule 2201] Federally Enforceable Through Title V Permit

36. Leaks from seals on pump 27-P3 and subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background. [District Rule 2201] Federally Enforceable Through Title V Permit

37. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

38. The number of representative units source tested for NOx emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 4306, 6.3.2.5] Federally Enforceable Through Title V Permit

39. The portable combustion analyzer shall be calibrated prior to each use with a two-point calibration method (zero and span). Calibration shall be performed with certified calibration gases. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

40. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit

41. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

42. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

43. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

44. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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45. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

46. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

47. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules, 4305, 6.2.1, 4306, 6.2.1, and 4351, 6.2.1] Federally Enforceable Through Title V Permit

48. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

49. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2] Federally Enforceable Through Title V Permit

50. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit

51. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit

52. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

53. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

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54. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

55. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

56. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

57. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

58. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

59. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

60. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit

61. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit

62. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit

63. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit

64. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

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65. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

66. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

67. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

68. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

69. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit

70. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit

71. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit

72. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit

73. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit

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74. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit

75. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

76. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit

77. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit

78. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit

79. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit

80. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit

81. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit

82. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit

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83. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit

84. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit

85. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

86. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4455] Federally Enforceable Through Title V Permit

87. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGGa. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484a. [40 CFR 60.592a(c)] Federally Enforceable Through Title V Permit

88. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and (f) and 40 CFR 60.482-2a(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 2,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2a(a) and (b)] Federally Enforceable Through Title V Permit

89. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)] Federally Enforceable Through Title V Permit

90. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)] Federally Enforceable Through Title V Permit

91. Any PLLS that is designated, as described in 40 CFR 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e)] Federally Enforceable Through Title V Permit

92. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)] Federally Enforceable Through Title V Permit

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93. Any pump in PLLS that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(d)(4) through (6) if: 1). The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2a(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)] Federally Enforceable Through Title V Permit

94. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482a-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)] Federally Enforceable Through Title V Permit

95. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(a)] Federally Enforceable Through Title V Permit

96. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9a. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(b)] Federally Enforceable Through Title V Permit

97. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4a(c)] Federally Enforceable Through Title V Permit

98. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4a(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9a. [40 CFR 60.482-4a(d)] Federally Enforceable Through Title V Permit

99. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1), (2), (3), and (4). [40 CFR 60.482-5a(a), (b), and (c)] Federally Enforceable Through Title V Permit

100. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1a(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6a(a) and (c)] Federally Enforceable Through Title V Permit

101. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6a(b)] Federally Enforceable Through Title V Permit

102. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)] Federally Enforceable Through Title V Permit

103. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)] Federally Enforceable Through Title V Permit

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104. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c) and (f). A leak is detected if an instrument reading of 500 ppm or greater is measured. [40 CFR 60.482-7a(a) and (b] Federally Enforceable Through Title V Permit

105. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7a(c)] Federally Enforceable Through Title V Permit

106. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)] Federally Enforceable Through Title V Permit

107. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f)] Federally Enforceable Through Title V Permit

108. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate dangor as a consequence of complying with 40 CFR 60.482-7a(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7a(g)] Federally Enforceable Through Title V Permit

109. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 and was constructed on or before January 5, 1981; or has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator. 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7a(h)] Federally Enforceable Through Title V Permit

110. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a as an alternative to the requirements in 40 CFR 60.482-7a. [40 CFR 60.592a(b)] Federally Enforceable Through Title V Permit

111. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8a(a) and (b), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

112. When a leak is detected in pumps and valves in heavy liquid service, and pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7a(e). [40 CFR 60.482-8a(c) and (d) , 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

113. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10a(b)] Federally Enforceable Through Title V Permit

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114. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10a(c)] Federally Enforceable Through Title V Permit

115. Flares used to comply with Subpart GGGa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)] Federally Enforceable Through Title V Permit

116. Owners or operators of control devices used to comply with the provisions of Subpart GGGa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)] Federally Enforceable Through Title V Permit

117. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system used to comply with the provisions of Subpart GGGa shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10a(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10a(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10a(f) and (g)] Federally Enforceable Through Title V Permit

118. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10a(h)] Federally Enforceable Through Title V Permit

119. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)] Federally Enforceable Through Title V Permit

120. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)] Federally Enforceable Through Title V Permit

121. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)] Federally Enforceable Through Title V Permit

122. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10a(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10a(l)] Federally Enforceable Through Title V Permit

123. Closed vent systems and control devices used to comply with provisions of Subpart GGGa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)] Federally Enforceable Through Title V Permit

124. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)] Federally Enforceable Through Title V Permit

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125. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring. A calibration drift assessment shall be performed, at a minimum, at the end of each Method 21 monitoring day, per 60.485a(b)(2). [40 CFR 60.485a(b)] Federally Enforceable Through Title V Permit

126. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485a(c)] Federally Enforceable Through Title V Permit

127. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485a(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485a(d)] Federally Enforceable Through Title V Permit

128. The owner or operator shall demonstrate that equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 degrees C (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)] Federally Enforceable Through Title V Permit

129. Samples used in conjunction with 40 CFR 60.485a(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485a(f)] Federally Enforceable Through Title V Permit

130. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485a(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485a(g)] Federally Enforceable Through Title V Permit

131. An owner or operator of more than one affected facility subject to the provisions Subpart GGGa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)] Federally Enforceable Through Title V Permit

132. The owner or operator shall record the following information for each monitoring event required by §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification; (ii) Operator identification; (iii) Equipment identification; (iv) Date of monitoring; (v) Instrument reading. [40 CFR 60.486a(a)(3)] Federally Enforceable Through Title V Permit

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133. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7a(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486a(b)] Federally Enforceable Through Title V Permit

134. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number (except when indications of liquids dripping from a pump are designated as a leak); 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) The maximum instrument reading measured by the methods specified in 40 CFR 60.485a(a) at the time the leak is successfully repaired or determined to be nonrepairable (except when a pump is repaired by eliminating indicates of liquids dripping); 5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2520] Federally Enforceable Through Title V Permit

135. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)] Federally Enforceable Through Title V Permit

136. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGGa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f) shall be signed by the owner or operator, or other mechanism as established with the permitting authority; 3) A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with §60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr; 7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 8) Method 21 monitoring instrument calibration records including (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value per section 10.1 of Method 21; (v) Results of each calibration drift assessment required by §60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 9) The connector monitoring schedule for each process unit as specified in §60.482-11a(b)(3)(v); and 10) Records of each release from a pressure relief device subject to §60.482-4a. [40 CFR 60.486a(e)] Federally Enforceable Through Title V Permit

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137. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connectors stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486a(f)] Federally Enforceable Through Title V Permit

138. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)] Federally Enforceable Through Title V Permit

139. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)] Federally Enforceable Through Title V Permit

140. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480a(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486a(i)] Federally Enforceable Through Title V Permit

141. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486a(j)] Federally Enforceable Through Title V Permit

142. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGGa. [40 CFR 60.486a(k)] Federally Enforceable Through Title V Permit

143. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in §60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in §60.482-11a(d), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)] Federally Enforceable Through Title V Permit

144. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)] Federally Enforceable Through Title V Permit

145. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGGa except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487a(e)] Federally Enforceable Through Title V Permit

146. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)] Federally Enforceable Through Title V Permit

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147. Compressors are exempt from the standards of Subpart GGGa if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment to demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593a(b)] Federally Enforceable Through Title V Permit

148. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3a (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3a(a), (b), (c), (d), (e), and (h). [40 CFR 60.593a(c)] Federally Enforceable Through Title V Permit

149. An owner or operator may use the following provision in addition to 40 CFR 60.485a(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 93, 95, or 96. [40 CFR 60.593a(d)] Federally Enforceable Through Title V Permit

150. Connectors in gas/vapor or light liquid service are exempt from the requirements in 40 CFR 60.482-11a, provided the owner or operator complies with 40 CFR 60.482-8a for all connectors, not just those in heavy liquid service. [40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

151. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)] Federally Enforceable Through Title V Permit

152. (i.) [Special Conditions]

153. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H2S) in excess of 0.10 gr/dscf (230 mg/dscm) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit

154. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit

155. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H2S as measured by the H2S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO2 as measured by the SO2 continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit

156. Operator shall determine compliance with the H2S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit

157. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit

158. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

159. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

160. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGGa. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

161. Fuel gas sulfur content shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

162. Permittee shall determine sulfur content of combusted gas annually. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

163. Pursuant to Rule 4320, the operator shall pay an annual emission fee to the District for NOx emissions from combustion unit(s) for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

164. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit

165. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 243 lbs, 2nd quarter - 243 lbs, 3rd quarter - 242 lbs, and 4th quarter - 242 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

166. ERC Certificate Number S-3663-1 (or certificates split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

167. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-372-4 **ISSUANCE DATE:** 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF LIQUEFIED PETROLEUM GAS AND NATURAL GASOLINE TRUCK LOADING/UNLOADING LANES WITH SEVEN PUMPS SERVED BY VAPOR RECOVERY SYSTEM: RELOCATION; ADDITION OF ONE-LANE TRUCK UNLOADING RACK FROM PERMIT S-33-70; AND CONSTRUCTION OF ONE ADDITIONAL LANE FOR A TOTAL OF FOUR LANES

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Organic liquid transfer shall be with vapor control such that VOC emissions do not exceed 0.08 lb per 1000 gallons of liquid loaded. [District Rule 4624, 4.1] Federally Enforceable Through Title V Permit
4. Fugitive volatile organic compound (VOC) emissions shall not exceed 4.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-372-4 : Mar 19 2015 8:32AM – RINALDIR : Joint Inspection Required with RINALDIR

6. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Vacuum purge system shall be activated prior to transport tank disconnect to displace organic vapors to vapor recovery system. [District Rule 4624] Federally Enforceable Through Title V Permit

8. Operator shall ensure all required source testing conforms to the compliance testing procedures described in District Rule 1081 (as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit

9. The vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum. This requirement shall not apply to the transfer of liquid petroleum gas. [District Rules 4624, 5.4] Federally Enforceable Through Title V Permit

10. All delivery tanks which previously contained organic liquids, including gasoline, with a TVP greater than 1.5 psia at loading conditions shall be filled only at Class 1 loading facilities using bottom loading equipment with a vapor collection and control system operating such that VOC emissions do not exceed 0.08 lb/1000 gallons loaded. [District Rules 4624, 5.5] Federally Enforceable Through Title V Permit

11. The construction of any new top loading facility or the reconstruction, as defined in 40 CFR 60.15, or the expansion of any existing top loading facility with top loading equipment shall not be allowed. [District Rule 4624, 5.7] Federally Enforceable Through Title V Permit

12. The transfer rack vapor collection and control equipment shall be designed, installed, maintained and operated such that there are no leaks and no excess organic liquid drainage at disconnections. [District Rule 4624, 5.6] Federally Enforceable Through Title V Permit

13. Excess organic liquid drainage is defined as more than ten (10) milliliters liquid drainage. Such liquid drainage for disconnect operations shall be determined by computing the average drainage from three consecutive disconnects at any one permit unit. [District Rule 4624, 3.13] Federally Enforceable Through Title V Permit

14. In an organic liquid transfer facility, a leak is defined as the dripping of VOC-containing liquid at a rate of more than three (3) drops per minute, or for organic liquids other than gasoline, the detection of any gaseous or vapor emissions with a concentration of VOC greater than 1,000 ppmv above background as methane, or for gasoline, a concentration of VOC greater than 10,000 ppmv as methane above background when measured using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rule 4624, 3.17] Federally Enforceable Through Title V Permit

15. During the transfer of organic liquids, the operator shall perform and record the results of monthly leak inspections of the loading and vapor collection equipment at each transfer rack. Leak inspections shall be conducted using sight, sound, or smell. Once each calendar quarter, in lieu of the regular monthly monitoring, the operator shall monitor the vapor collection and control system and each transfer rack using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rule 4624, 5.9.1 and 6.3.8, and 40 CFR 60.502(j)] Federally Enforceable Through Title V Permit

16. Corrective steps shall be taken at any time the operator observes excess drainage at disconnect. In addition, the operator shall perform and record the results of drainage inspections at disconnect conducted on a quarter of the loading arms every calendar quarter. However, if one or more excess drainage condition is found during a quarterly inspection, the inspection frequency shall change to quarterly for all loading arms. If no excess drainage is found after four consecutive quarterly inspection of all loading arms, the inspection frequency shall return to inspections of a quarter of the loading arms every calendar quarter. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Compliance shall be demonstrated by collecting all drainage at disconnect in a spouted container. The drainage shall be transferred to a graduated cylinder and the volume determined within one (1) minute of collection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

18. Each leaking component shall be repaired or replaced within 72 hours after detection. If the leaking component cannot be repaired or replaced within 72 hours, it shall be taken out of service until such time as it is repaired or replaced. Components taken out of service shall be repaired or replaced within 15 calendar days of leak detection. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624, 5.9.3 and 40 CFR 60.502(j)] Federally Enforceable Through Title V Permit

19. For an organic liquid transfer facility, an operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually provided no leaks were found during five consecutive quarterly inspections. Upon identification of any leak during an annual inspection, the inspection frequency shall revert back to quarterly, and the operator shall contact the APCO in writing within 14 days. [District Rule 4624, 5.9.4] Federally Enforceable Through Title V Permit

20. The permittee shall maintain an inspection log containing at least the following: A) dates of leak and drainage inspections, B) leak determination method, C) findings, D) corrective action (date each leak or excess drainage condition repaired, reasons for any leak repair interval in excess of 15 days), and E) inspector name and signature. [District Rule 4624, 6.1.3 and 40 CFR 60.505(c)] Federally Enforceable Through Title V Permit

21. VOC emissions from the transfer rack vapor collection and control system shall be determined annually using 40 CFR 60.503. "Test Methods and Procedures" and EPA Methods 2A, 2B, 25A and 25B and ARB Method 422, or ARB Test Procedure TP-203.1. [District Rule 4624, 6.3.2] Federally Enforceable Through Title V Permit

22. VOC emissions shall be determined annually using 40CFR 60.503 "Test Methods and Procedures," and EPA Reference Methods 2A, 2B, 25A and 25B and ARB Method 432, or ARB Method 2-4. [District Rule 4624, 6.2.2] Federally Enforceable Through Title V Permit

23. The vapor collection and control system (VCCS) shall be tested annually to demonstrate the pressure in the delivery tanks being loaded complies with the requirements specified in this permit. Compliance shall be determined by calibrating and installing a liquid manometer, magnehelic device, or other instrument demonstrated to be equivalent, capable of measuring up to 500 mm water gauge pressure with a precision of 2.5 mm water gauge, on the terminal's VCCS at a pressure tap as close as possible to the connection with the product tank truck. The highest instantaneous pressure measurement as well as all pressure measurements at 5 minute intervals during delivery vessel loading must be recorded. Every loading position must be tested at least once during the annual performance test. [District Rule 2520, 9.3.2] Federally Enforceable Througb Title V Permit

24. The vapor collection and control system shall consist of a device which returns collected vapors to a product storage tank only. The system shall not include a device which incinerates, adsorbs or otherwise treats collected vapors. [District Rule 2520, 9.1] Federally Enforceable Through Title V Permit

25. Loading of a delivery vessel shall discontinue if its pressure relief valve opens. Corrective action shall be taken should this condition occur. [District Rule 2520, 9.1] Federally Enforceable Through Title V Permit

26. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rule 4455] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

27. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455, 4.1 & 4.2] Federally Enforceable Through Title V Permit

28. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1] Federally Enforceable Through Title V Permit

29. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2] Federally Enforceable Through Title V Permit

30. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455, 5.1.3.1] Federally Enforceable Through Title V Permit

31. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.1] Federally Enforceable Through Title V Permit

32. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.2] Federally Enforceable Through Title V Permit

33. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455, 5.1.3.2.3] Federally Enforceable Through Title V Permit

34. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455, 5.2.1 & 5.2.2] Federally Enforceable Through Title V Permit

35. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7] Federally Enforceable Through Title V Permit

36. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8] Federally Enforceable Through Title V Permit

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37. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 & 5.2.10] Federally Enforceable Through Title V Permit

38. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11] Federally Enforceable Through Title V Permit

39. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12] Federally Enforceable Through Title V Permit

40. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455, 5.2.13] Federally Enforceable Through Title V Permit

41. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1, 5.3.2 & 5.3.3] Federally Enforceable Through Title V Permit

42. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455, 5.3.4] Federally Enforceable Through Title V Permit

43. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455, 5.3.5] Federally Enforceable Through Title V Permit

44. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6] Federally Enforceable Through Title V Permit

45. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455, 5.3.7] Federally Enforceable Through Title V Permit

46. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

47. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455, 5.4.3 & 5.4.4] Federally Enforceable Through Title V Permit

48. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455, 5.4.5] Federally Enforceable Through Title V Permit

49. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit

50. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455, 6.1.2 & 6.1.4] Federally Enforceable Through Title V Permit

51. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455, 6.2.1] Federally Enforceable Through Title V Permit

52. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455, 6.2.3] Federally Enforceable Through Title V Permit

53. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455, 6.3.1] Federally Enforceable Through Title V Permit

54. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455 6.3.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

55. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455, 6.2.2, 6.2.3 & 6.2.4] Federally Enforceable Through Title V Permit

56. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455, 6.4] Federally Enforceable Through Title V Permit

57. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455, 6.4.1] Federally Enforceable Through Title V Permit

58. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455, 6.4.2] Federally Enforceable Through Title V Permit

59. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455, 6.4.3] Federally Enforceable Through Title V Permit

60. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455, 6.4.4] Federally Enforceable Through Title V Permit

61. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455, 6.4.5] Federally Enforceable Through Title V Permit

62. Compliance with these permit conditions in the Title V permit shall be deemed compliance with the following requirements: District Rule 4624 (amended December 20, 2007). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

63. Operator shall maintain all records of required monitoring data and support information for inspection for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

64. Permittee shall maintain accurate records of liquid type, vapor pressure (TVP or RVP), and amount of each liquid transferred. Such records shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

65. The permittee shall keep records of daily liquid throughput and maintain an inspection log containing at least the following: A) dates of leak and drainage inspections, B) leak determination method, C) findings, D) corrective action (date each leak or excess drainage condition repaired), and E) inspector name and signature. [District Rule 2520, 9.3.2 and 4624, 6.1.3] Federally Enforceable Through Title V Permit

66. Upon Implementation of this Authority Construct, PTO S-33-70 shall be cancelled. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-440-0

ISSUANCE DATE: 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

EQUIPMENT DESCRIPTION:
ORGANIC LIQUID TRANSFER OPERATION WITH CRUDE OIL RAILCAR UNLOADING RACK AND ASSOCIATED OFFLOADING, TRANSFER AND BOOSTER PUMPS (6 TOTAL WITH A CAPACITY OF UP TO 350 HP FOR EACH PUMP), AND PIPING, INCLUDING STEAM FOR HEATING AND UTILITIES

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. There shall be no more than 312 disconnects per day and 75,920 disconnects per year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive volatile organic compound (VOC) emissions shall not exceed 7.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or danial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications end conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the Sen Joaquin Valley Unified Air Pollution Control District. Unless construction hes commenced pursusnt to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuence. The applicsnt is responsible for complying with all laws, ordinances and regulations of all other govemmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-440-0 : Mar 19 2015 6:33AM – RINALDIR : Joint Inspection Required with RINALDIR

6. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Loading of any material into railcars is not permitted. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Maximum liquid spillage for liquids from organic liquid transfer operation shall not exceed 3.2 milliliters/disconnect based on an average from 3 consecutive disconnects. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit

9. For this Class 1 organic liquid transfer facility, the emission of VOC from the transfer operation shall not exceed 0.08 pounds per 1,000 gallons of organic liquid transferred. [District Rule 4624] Federally Enforceable Through Title V Permit

10. All unloaded liquids and gases shall be routed to one of the following systems: a vapor collection and control system; a fixed roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); a floating roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a pressure vessel equipped with an APCO-approved vapor recovery system that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a closed VOC emission control system. [District Rule 4624] Federally Enforceable Through Title V Permit

11. Components serving this operation shall be maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit

12. A leak is defined as the dripping of VOC-containing liquid at a rate of more than three (3) drops per minute; or for organic liquids other than gasoline, the detection of any gaseous or vapor emissions with a concentration of VOC greater than 1,000 ppmv above a background as methane when measured in accordance with the test method in Section 6.3.7; or for gasoline, a concentration of VOC greater than 10,000 ppmv, as methane, above background when measured in accordance with the test method in Section 6.3.7. Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from equipment into a container is not considered a leak provided such activities are accomplished as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit

13. The operator of an organic liquid transfer facility shall inspect the vapor collection system, the vapor disposal system, and each transfer rack handling organic liquids for leaks during transfer at least once every calendar quarter using the test method prescribed in Section 6.3.8 of Rule 4624. [District Rule 4624] Federally Enforceable Through Title V Permit

14. A floating roof container that meets the applicable control requirements of Section 5.0 of Rule 4623 (Storage of Organic Liquids) shall be considered not leaking when receiving unloaded liquids for compliance with Rule 4624. [District Rule 4624] Federally Enforceable Through Title V Permit

15. All equipment that is found leaking shall be repaired or replaced within 72 hours. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624] Federally Enforceable Through Title V Permit

16. An operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually provided no leaks were found during the inspections required under provisions of Sections 5.9.1 and 5.9.2 of Rule 4624 during five consecutive quarterly inspections. Upon identification of any leak during an annual inspection the frequency shall revert back to quarterly and the operator shall contact the APCO in writing within 14 days. [District Rule 4624] Federally Enforceable Through Title V Permit

17. Daily and annual records of the throughputs of materials transferred, the results of any required leak inspections, and the quantity and type of components in service shall be maintained. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

18. Daily and annual records of the number of disconnects shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

19. All records required by this permit shall be retained for a period of at least 5 years and shall be made available to the District upon request. [District Rules 1070 and 4624] Federally Enforceable Through Title V Permit

20. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 1149 lbs, 2nd quarter - 1149 lbs, 3rd quarter - 1149 lbs, and 4th quarter - 1149 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

21. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits in the following quantities: 1st quarter - 3750 lbs, 2nd quarter - 3750 lbs, 3rd quarter - 3750 lbs, and 4th quarter - 3750 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

22. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 1291 lbs, 2nd quarter - 1291 lbs, 3rd quarter - 1291 lbs, and 4th quarter - 1291 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

23. Prior to operating equipment under this Authority to Construct, permittee shall surrender PM emission reduction credits in the following quantities: 1st quarter - 65 lbs, 2nd quarter - 65 lbs, 3rd quarter - 65 lbs, and 4th quarter - 65 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

24. Prior to operating equipment under this Authority to Construct, permittee shall surrender CO emission reduction credits in the following quantities: 1st quarter - 515 lbs, 2nd quarter - 515 lbs, 3rd quarter - 515 lbs, and 4th quarter - 515 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

25. ERC Certificate Numbers S-4334-2, S-3465-5, S-3462-4, S-3458-3, and S-3663-1 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-441-0 **ISSUANCE DATE:** 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

EQUIPMENT DESCRIPTION:
21 MMBTU/HR CLEVER BROOKS MODEL CB700X (500 HP) NATURAL GAS-FIRED BOILER (OR DISTRICT APPROVED EQUIVALENT) WITH A NT1700 500ULTRA LOW NOX BURNER

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

S-33-441-0 : Mar 19 2015 8:33AM – RINALDIR : Joint Inspection Required with RINALDIR

6. No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201] Federally Enforceable Through Title V Permit

7. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit

9. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

10. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

11. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

13. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO_2, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

15. Unit shall be only fired on PUC-regulated natural gas. [District Rule 2201, District Rule 4301, 5.2.1 and 40 CFR § 60.42c(d)] Federally Enforceable Through Title V Permit

16. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

17. The duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. Except during startup and shutdown periods emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 6 ppmv NOx @ 3% O_2 or 0.007 lb-NOx/MMBtu, , 0.0075 lb-PM10/MMBtu, 25 ppmv CO @ 3% O_2 or 0.0185 lb-CO/MMBtu, or 0.0054 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

20. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by: ASTM D 240 or D 2382 for liquid hydrocarbon fuels; ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2, 4305, 6.2.1, 4306, 6.2.1, and 4320, 6.2.1] Federally Enforceable Through Title V Permit

21. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

22. This unit shall be tested for compliance with the NOx and CO emissions limits at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

23. Nitrogen oxide (NOx) emission concentrations in ppmv referenced at dry stack emissions shall be corrected to 3% O2 and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rules 4305, 8.1, 4306, 8.1, and 4320, 8.1] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

29. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

30. Source testing to measure NOx and CO emissions shall be conducted within 60 days of initial operation under this ATC. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

31. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

32. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

33. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

34. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

35. Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

36. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 405 (Madera), 408 and 409 (Kern), and 408 (all six remaining counties in the San Joaquin Valley); Rule 404 (Madera) 406 (Fresno), and 407 (all six remaining counties in the San Joaquin Valley); SJVUAPCD Rule 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 4201, 4301, 4305, and 4351. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. The requirements of 40 CFR 72.6(b) are not applicable because this is not an affected unit under the acid rain provisions. The requirements of 40 CFR 60.40c do not apply to this source because it is not used to produce electricity for sale. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits in the following quantities: 1st quarter - 503 lbs, 2nd quarter - 503 lbs, 3rd quarter - 503 lbs, and 4th quarter - 503 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

42. Prior to operating equipment under this Authority to Construct, permittee shall surrender SOx emission reduction credits in the following quantities: 1st quarter - 644 lbs, 2nd quarter - 644 lbs, 3rd quarter - 644 lbs, and 4th quarter - 644 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

43. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 372 lbs, 2nd quarter - 372 lbs, 3rd quarter - 372 lbs, and 4th quarter - 372 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

44. Prior to operating equipment under this Authority to Construct, permittee shall surrender PM emission reduction credits in the following quantities: 1st quarter - 343 lbs, 2nd quarter - 343 lbs, 3rd quarter - 343 lbs, and 4th quarter - 343 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

45. Prior to operating equipment under this Authority to Construct, permittee shall surrender CO emission reduction credits in the following quantities: 1st quarter - 851 lbs, 2nd quarter - 851 lbs, 3rd quarter - 851 lbs, and 4th quarter - 851 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

46. ERC Certificate Numbers S-4334-2, S-3465-5, S-3462-4, S-3458-3, and S-3663-1 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-442-0

ISSUANCE DATE: 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

EQUIPMENT DESCRIPTION:
21 MMBTU/HR CLEVER BROOKS MODEL CB700X (500 HP) NATURAL GAS-FIRED BOILER (OR DISTRICT APPROVED EQUIVALENT) WITH A NT1700 500ULTRA LOW NOX BURNER

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

S-33-442-0 : Mar 19 2015 8:33AM – RINALDIR : Joint Inspection Required with RINALDIR

6. No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201] Federally Enforceable Through Title V Permit

7. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit

9. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

10. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

11. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]

13. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

15. Unit shall be only fired on PUC-regulated natural gas. [District NSR Rule, District Rule 4301, 5.2.1 and 40 CFR § 60.42c(d)] Federally Enforceable Through Title V Permit

16. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

17. The duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. Except during startup and shutdown periods emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 6 ppmv NOx @ 3% O2 or 0.007 lb-NOx/MMBtu, , 0.0075 lb-PM10/MMBtu, 25 ppmv CO @ 3% O2 or 0.0185 lb-CO/MMBtu, or 0.0054 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

20. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by: ASTM D 240 or D 2382 for liquid hydrocarbon fuels; ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2, 4305, 6.2.1, 4306, 6.2.1, and 4320, 6.2.1] Federally Enforceable Through Title V Permit

21. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

22. This unit shall be tested for compliance with the NOx and CO emissions limits at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

23. Nitrogen oxide (NOx) emission concentrations in ppmv referenced at dry stack emissions shall be corrected to 3% O2 and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rules 4305, 8.1, 4306, 8.1, and 4320, 8.1] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

29. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

30. Source testing to measure NOx and CO emissions shall be conducted within 60 days of initial operation under this ATC. [District Rules 4305, 4306 and 4320]

31. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

32. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

33. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

34. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

35. Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

36. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 405 (Madera), 408 and 409 (Kern), and 408 (all six remaining counties in the San Joaquin Valley); Rule 404 (Madera) 406 (Fresno), and 407 (all six remaining counties in the San Joaquin Valley); SJVUAPCD Rule 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 4201, 4301, 4305, and 4351. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. The requirements of 40 CFR 72.6(b) are not applicable because this is not an affected unit under the acid rain provisions. The requirements of 40 CFR 60.40c do not apply to this source because it is not used to produce electricity for sale. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits in the following quantities: 1st quarter - 503 lbs, 2nd quarter - 503 lbs, 3rd quarter - 503 lbs, and 4th quarter - 503 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

42. Prior to operating equipment under this Authority to Construct, permittee shall surrender SOx emission reduction credits in the following quantities: 1st quarter - 644 lbs, 2nd quarter - 644 lbs, 3rd quarter - 644 lbs, and 4th quarter - 644 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

43. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 372 lbs, 2nd quarter - 372 lbs, 3rd quarter - 372 lbs, and 4th quarter - 372 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

44. Prior to operating equipment under this Authority to Construct, permittee shall surrender PM emission reduction credits in the following quantities: 1st quarter - 343 lbs, 2nd quarter - 343 lbs, 3rd quarter - 343 lbs, and 4th quarter - 343 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

45. Prior to operating equipment under this Authority to Construct, permittee shall surrender CO emission reduction credits in the following quantities: 1st quarter - 851 lbs, 2nd quarter - 851 lbs, 3rd quarter - 851 lbs, and 4th quarter - 851 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

46. ERC Certificate Numbers S-4334-2, S-3465-5, S-3462-4, S-3458-3, and S-3663-1 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-443-0 **ISSUANCE DATE:** 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

EQUIPMENT DESCRIPTION:
21 MMBTU/HR CLEVER BROOKS MODEL CB700X (500 HP) NATURAL GAS-FIRED BOILER (OR DISTRICT APPROVED EQUIVALENT) WITH A NT1700 500ULTRA LOW NOX BURNER

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-443-0 : Mar 19 2015 8:33AM – RINALDIR : Joint Inspection Required with RINALDIR

6. No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201] Federally Enforceable Through Title V Permit

7. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit

9. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

10. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

11. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]

13. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO_2, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

15. Unit shall be only fired on PUC-regulated natural gas. [District NSR Rule, District Rule 4301, 5.2.1 and 40 CFR § 60.42c(d)] Federally Enforceable Through Title V Permit

16. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

17. The duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. Except during startup and shutdown periods emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 6 ppmv NOx @ 3% O2 or 0.007 lb-NOx/MMBtu, , 0.0075 lb-PM10/MMBtu, 25 ppmv CO @ 3% O2 or 0.0185 lb-CO/MMBtu, or 0.0054 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

20. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by: ASTM D 240 or D 2382 for liquid hydrocarbon fuels; ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2, 4305, 6.2.1, 4306, 6.2.1, and 4320, 6.2.1] Federally Enforceable Through Title V Permit

21. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

22. This unit shall be tested for compliance with the NOx and CO emissions limits at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

23. Nitrogen oxide (NOx) emission concentrations in ppmv referenced at dry stack emissions shall be corrected to 3% O2 and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rules 4305, 8.1, 4306, 8.1, and 4320, 8.1] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

29. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

30. Source testing to measure NOx and CO emissions shall be conducted within 60 days of initial operation under this ATC. [District Rules 4305, 4306 and 4320]

31. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

32. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

33. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

34. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

35. Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

36. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 405 (Madera), 408 and 409 (Kern), and 408 (all six remaining counties in the San Joaquin Valley); Rule 404 (Madera) 406 (Fresno), and 407 (all six remaining counties in the San Joaquin Valley); SJVUAPCD Rule 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 4201, 4301, 4305, and 4351. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. The requirements of 40 CFR 72.6(b) are not applicable because this is not an affected unit under the acid rain provisions. The requirements of 40 CFR 60.40c do not apply to this source because it is not used to produce electricity for sale. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits in the following quantities: 1st quarter - 503 lbs, 2nd quarter - 503 lbs, 3rd quarter - 503 lbs, and 4th quarter - 503 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

42. Prior to operating equipment under this Authority to Construct, permittee shall surrender SOx emission reduction credits in the following quantities: 1st quarter - 644 lbs, 2nd quarter - 644 lbs, 3rd quarter - 644 lbs, and 4th quarter - 644 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

43. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 372 lbs, 2nd quarter - 372 lbs, 3rd quarter - 372 lbs, and 4th quarter - 372 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

44. Prior to operating equipment under this Authority to Construct, permittee shall surrender PM emission reduction credits in the following quantities: 1st quarter - 343 lbs, 2nd quarter - 343 lbs, 3rd quarter - 343 lbs, and 4th quarter - 343 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

45. Prior to operating equipment under this Authority to Construct, permittee shall surrender CO emission reduction credits in the following quantities: 1st quarter - 851 lbs, 2nd quarter - 851 lbs, 3rd quarter - 851 lbs, and 4th quarter - 851 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

46. ERC Certificate Numbers S-4334-2, S-3465-5, S-3462-4, S-3458-3, and S-3663-1 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-444-0

ISSUANCE DATE: 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

EQUIPMENT DESCRIPTION:
UP TO 25,000 BBL FIXED ROOF STORAGE TANK (#71-T10M25) CONNECTED TO VAPOR CONTROL SYSTEM

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor control system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District Rules 2201, 4623, 5.6.1 and 40 CFR 60.112b(a)(3)] Federally Enforceable Through Title V Permit
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation, except as provided below. [District Rule 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-444-0 : Mar 19 2015 8:33AM – RINALDIR : Joint Inspection Required with RINALDIR

6. If any of the tank components are found to be leaking (>500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21) , the facility operator shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected, and found to be in compliance with the requirements of Rule 4623 and subpart Kb. The operator shall maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

7. Leaks measuring > 500 ppmv and < 10,000 ppmv, or leaks measuring > 10,000 ppmv from components within five feet of the tank that have been discovered by the operator and have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

8. Upon detection of any leaks >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane, the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to eliminate the leak shall exceed 56 hours after detection. [District Rule 4623] Federally Enforceable Through Title V Permit

9. If a component type for a given tank is found to leak above the 10,000 ppmv during an annual inspection, then quarterly inspections of that component type on the tank or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to leak less than 10,000 ppmv, inspections interval may revert to annual. [District Rule 4623] Federally Enforceable Through Title V Permit

10. Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit

11. Total controlled VOC emissions from fugitive components shall not exceed 1.3 lbs/day. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Operator shall maintain records demonstrating compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using an accurate component count and the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

13. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. [District Rule 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

14. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623 or 2080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

16. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623 or 2080] Federally Enforceable Through Title V Permit

17. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid is placed, held, or stored in this tank. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

18. Tank may be disconnected from vapor control system during maintenance and cleaning periods provided liquids and vapors subject to Rule 4623 are completely removed and vapor lines are isolated. [District Rule 4623] Federally Enforceable Through Title V Permit

19. Permittee shall receive written or faxed approval from the District Compliance division prior to tank vapor control system disconnection. [District Rule 4623] Federally Enforceable Through Title V Permit

20. Upon reconnection to vapor control system, permittee shall demonstrate using a portable hydrocarbon monitor that all tank pressure relief valves and other fugitive components associated with the tank are gas tight, as defined in Rule 4623. [District 2201 and 4623] Federally Enforceable Through Title V Permit

21. Collected vapors shall discharge only to refinery fuel gas or flare gas system. [District Rule 2201] Federally Enforceable Through Title V Permit

22. As part of its notification required by 40 CFR 60.7(a)(1) or 60.7(a)(2), the operator shall submit to the APCO for approval an operating plan as described in 40 CFR 60.113b(c) and shall operate the closed vent system and monitor the parameters of the system in accordance with the approved operating plan. The operator shall keep a record of the measured values of the parameters monitored in accordance with the approved operating plan. The operating plan shall be retained for the life of the control equipment. [40 CFR 60.113b(c), 60.115b(c)] Federally Enforceable Through Title V Permit

23. Operator shall determine the presence of VOC leaks by EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases; 1.) Zero air (less than 10 ppm of hydrocarbon in air); and 2.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

24. Operator shall maintain a record showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [40 CFR 60.116b(b)] Federally Enforceable Through Title V Permit

25. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor control system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources, and the efficiency of any VOC destruction device. [District Rule 4623] Federally Enforceable Through Title V Permit

26. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, or 25b, and analysis of halogenated exempt compounds shall be analyzed by ARB Method 432. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

27. The operator shall ensure that the vapor control system is functional and is operating as designed whenever emissions are being vented to it. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Construction, reconstruction, or modification of this unit was commenced after July 23, 1984. Therefore, the requirements of 40 CFR 60 Subpart K and Ka do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

29. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 173 lbs, 2nd quarter - 173 lbs, 3rd quarter - 173 lbs, and 4th quarter - 173 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

30. ERC Certificate Number S-3663-1 (or a certificate split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 220 1] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-445-0

ISSUANCE DATE: 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

EQUIPMENT DESCRIPTION:
UP TO 25,000 BBL FIXED RDOF STORAGE TANK (#71-T10M26) CONNECTED TO VAPOR CONTROL SYSTEM

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor control system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District Rules 2201, 4623, 5.6.1 and 40 CFR 60.112b(a)(3)] Federally Enforceable Through Title V Permit
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation, except as provided below. [District Rule 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-6500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-445-0 : Mar 19 2015 8:33AM – RINALDIR : Joint Inspection Required with RINALDIR

6. If any of the tank components are found to be leaking (>500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21) , the facility operator shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected, and found to be in compliance with the requirements of Rule 4623 and subpart Kb. The operator shall maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

7. Leaks measuring > 500 ppmv and < 10,000 ppmv, or leaks measuring > 10,000 ppmv from components within five feet of the tank that have been discovered by the operator and have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

8. Upon detection of any leaks >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane, the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to eliminate the leak shall exceed 56 hours after detection. [District Rule 4623] Federally Enforceable Through Title V Permit

9. If a component type for a given tank is found to leak above the 10,000 ppmv during an annual inspection, then quarterly inspections of that component type on the tank or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to leak less than 10,000 ppmv, inspections interval may revert to annual. [District Rule 4623] Federally Enforceable Through Title V Permit

10. Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit

11. Total controlled VOC emissions from fugitive components shall not exceed 1.3 lbs/day. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Operator shall maintain records demonstrating compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using an accurate component count and the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

13. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. [District Rule 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

14. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623 or 2080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

16. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623 or 2080] Federally Enforceable Through Title V Permit

17. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid is placed, held, or stored in this tank. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

18. Tank may be disconnected from vapor control system during maintenance and cleaning periods provided liquids and vapors subject to Rule 4623 are completely removed and vapor lines are isolated. [District Rule 4623] Federally Enforceable Through Title V Permit

19. Permittee shall receive written or faxed approval from the District Compliance division prior to tank vapor control system disconnection. [District Rule 4623] Federally Enforceable Through Title V Permit

20. Upon reconnection to vapor control system, permittee shall demonstrate using a portable hydrocarbon monitor that all tank pressure relief valves and other fugitive components associated with the tank are gas tight, as defined in Rule 4623. [District 2201 and 4623] Federally Enforceable Through Title V Permit

21. Collected vapors shall discharge only to refinery fuel gas or flare gas system. [District Rule 2201] Federally Enforceable Through Title V Permit

22. As part of its notification required by 40 CFR 60.7(a)(1) or 60.7(a)(2), the operator shall submit to the APCO for approval an operating plan as described in 40 CFR 60.113b(c) and shall operate the closed vent system and monitor the parameters of the system in accordance with the approved operating plan. The operator shall keep a record of the measured values of the parameters monitored in accordance with the approved operating plan. The operating plan shall be retained for the life of the control equipment. [40 CFR 60.113b(c), 60.115b(c)] Federally Enforceable Through Title V Permit

23. Operator shall determine the presence of VOC leaks by EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases; 1.) Zero air (less than 10 ppm of hydrocarbon in air); and 2.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit

24. Operator shall maintain a record showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [40 CFR 60.116h(b)] Federally Enforceable Through Title V Permit

25. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor control system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources, and the efficiency of any VOC destruction device. [District Rule 4623] Federally Enforceable Through Title V Permit

26. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, or 25b, and analysis of halogenated exempt compounds shall be analyzed by ARB Method 432. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit

27. The operator shall ensure that the vapor control system is functional and is operating as designed whenever emissions are being vented to it. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Construction, reconstruction, or modification of this unit was commenced after July 23, 1984. Therefore, the requirements of 40 CFR 60 Subpart K and Ka do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

29. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 173 lbs, 2nd quarter - 173 lbs, 3rd quarter - 173 lbs, and 4th quarter - 173 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

30. ERC Certificate Number S-3663-1 (or a certificate split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-446-0

ISSUANCE DATE: 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

EQUIPMENT DESCRIPTION:
UP TO 250,000 BBL INTERNAL (DOMED) FLOATING ROOF ORGANIC LIQUID STORAGE TANK (#71-T150M01) WITH STEAM COILS AND ANCILLARY EQUIPMENT, INCLUDING PUMPS AND PIPING

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Permittee shall comply with all 40 CFR Part 60 Subpart A notification, reporting, and recordkeeping requirements. [40 CFR 60, paragraph 60.7] Federally Enforceable Through Title V Permit
4. Reid vapor pressure of organic liquid stored shall not exceed 9.0 psia. [District Rules 2201, 4623 and 40 CFR Part 60: Subpart Kb] Federally Enforceable Through Title V Permit
5. Maximum daily throughput for tanks S-33-446 (71-T150M01) and S-33-447 (71-T150M02), combined, shall not exceed 225,000 bbls. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Maximum annual throughput for tanks S-33-446 (71-T150M01) and S-33-447 (71-T150M02), combined, shall not exceed 54,750,000 bbls. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC emissions from this unit, including VOC emissions from fugitive components , shall not exceed 29.8 lbs/day. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-446-0 , Mar 19 2015 8:33AM – RINALDIR : Joint Inspection Required with RINALDIR

8. VOC emissions from fugitive components (valves, flanges, connectors, pump seals, etc.) shall not exceed 0.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Operator shall maintain records demonstrating compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually thereafter. Compliance shall be demonstrated by calculation, using an accurate component count and the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period [District Rule 2201] Federally Enforceable Through Title V Permit

10. Seal designs shall be submitted to the APCO and shall not be installed or used unless they are approved by the APCO as meeting the criteria set forth in Sections 5.3.2.1 through 5.3.2.3 as applicable. Seal designs other than set forth in Sections 5.3.2.1 through 5.3.2.3 may be approved provided that a notice allowing the use of such design has been published in the Federal Register pursuant to CFR 40 Part 60: Subpart Kb paragraph 60.114b. [District Rule 4623] Federally Enforceable Through Title V Permit

11. The floating roof shall be floating on the surface of the stored liquid at all times (i.e., off the roof leg supports) except during the initial fill until the roof is lifted off the leg supports and when the tank is completely emptied and subsequently refilled. When the roof is resting on the leg supports the processes of filling or emptying and refilling the tank shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five calendar days prior to performing the work. The tank must be in compliance with this rule before it may land the roof on its legs. [District Rule 4623; 40 CFR 60.112b(a)(1)(i) and 63.11087(a)] Federally Enforceable Through Title V Permit

12. No gap between the tank shell and the primary seal shall exceed 1-1/2 inches. [District Rule 4623] Federally Enforceable Through Title V Permit

13. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit

14. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit

15. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit

16. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit

17. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit

18. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit

19. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623] Federally Enforceable Through Title V Permit

20. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623 and 40 CFR 60.113b(b)(4)(i)(B) and (ii)(C)] Federally Enforceable Through Title V Permit

21. The secondary seal shall allow easy insertion of probes of up to 1-1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit

22. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. All openings in the roof used for sampling and gauging, except pressure-vacuum relief valves, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be leak free, except when the device or appurtenance is in use. [District Rule 4623] Federally Enforceable Through Title V Permit

24. The pressure-vacuum relief valve shall be set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623] Federally Enforceable Through Title V Permit

25. A leak-free condition is defined as a condition without a gas or liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv as methane, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of an organic liquid at a rate of more than three (3) drops per minute. A reading in excess of 10,000 ppmv as methane above background or a liquid leak of greater than three (3) drops per minute is a violation of this permit and Rule 4623 and shall be reported as a deviation, unless this tank is a part of Voluntary Tank Preventive Inspection and Maintenance, and Tank Interior Cleaning Program under section 5.7 of Rule 4623 and complies with all requirements in Table 5 of Rule 4623 for Internal Floating Roof Tank Preventative Inspection and Maintenance. [District Rule 4623] Federally Enforceable Through Title V Permit

26. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents shall provide a projection below the liquid surface. [District Rule 4623; 40 CFR 60.112b(a)(1)(iii) and 63.11087(a)] Federally Enforceable Through Title V Permit

28. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623; 40 CFR 60.112b(a)(1)(iv) and 63.11087(a)] Federally Enforceable Through Title V Permit

29. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623; 40 CFR 60.112b(a)(1)(v) and 63.11087(a)] Federally Enforceable Through Title V Permit

30. Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623; 40 CFR 60.112b(a)(1)(vi) and 63.11087(a)] Federally Enforceable Through Title V Permit

31. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623; 40 CFR 60.112b(a)(1)(vii) and 63.11087(a)] Federally Enforceable Through Title V Permit

32. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623; 40 CFR 60.112b(a)(1)(viii) and 63.11087(a)] Federally Enforceable Through Title V Permit

33. Each penetration of the internal floating roof that allows for the passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix) and 63.11087(a)] Federally Enforceable Through Title V Permit

34. For solid guidepole, all solid sampling or gauging wells, and similar fixed projections through the floating roof such as anti-rotational pipe shall provide a projection below the liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

35. For solid guidepole, the gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit

36. For slotted guidepole, all slotted sampling or gauging wells, and similar fixed projections through the floating roof shall provide a projection below the liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit

37. For slotted guidepole, the gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/8 inch. [District Rule 4623] Federally Enforceable Through Title V Permit

38. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623; 40 CFR 60.113b(a)(1) and 63.11092(e)(1)] Federally Enforceable Through Title V Permit

39. The permittee shall visually inspect, through the manholes, roof hatches, or other opening on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of hydro carbon vapors. Any defects found are violations of rule 4623. [District Rule 4623; 40 CFR 60.113b(a)(2) and 63.11092(e)(1)] Federally Enforceable Through Title V Permit

40. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. Other than the gap criteria specified by this permit, no holes, tears, or other openings are allowed that would permit the escape of hydrocarbon vapors. Any defects found shall constitute a violation of this Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit

41. If any failure (i.e. visible organic liquid on the internal floating roof, holes or tears in the seal fabric) is detected during 12 month visual inspection, the permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If the detected failure cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the APCO in the inspection report. Such a request must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(a)(2) and 63.11092(e)(1)] Federally Enforceable Through Title V Permit

42. The permittee shall notify the District in writing at least 30 days prior to conducting the visual inspection of the storage vessel, so the District can arrange an observer. [40 CFR 60.113b(a)(5) and 63.11092(e)(1)] Federally Enforceable Through Title V Permit

43. The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this Rule 4623, including the following: 1) Date the storage vessel was emptied, date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Observed condition of each component of the control equipment (seals, internal floating roof, and fittings). 4) Measurements of the gaps between the tank shell and primary and secondary seals. 5) Leak free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in parts per million by volume (ppmv). 6) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.4 and 5.5.2.4.3 of Rule 4623. 7) Nature of defects and any corrective actions or repairs performed on the tank in order to comply with rule 4623 and 40 CFR Part 60 Subpart Kb and the date(s) such actions were taken. [District Rule 4623; 40 CFR 60.115b(a)(2), 60.115b(a)(3), and 63.11094(a)] Federally Enforceable Through Title V Permit

44. The permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [40 CFR 60.116b(b)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

45. Operator shall keep a record of type of liquids stored in each container, period of storage, storage temperature, and both the Reid and maximum true vapor pressure of such liquids. [District Rule 4623] Federally Enforceable Through Title V Permit

46. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.116b(e)] Federally Enforceable Through Title V Permit

47. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

48. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, or method D5191, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit

49. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit

50. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products. [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit

51. Operator shall determine the true vapor pressure and API gravity for each petroleum liquid stored in the tank at least once per year in accordance with methods described herein.. Determinations shall be made annually during summer and whenever there is a change in the originating source or type of petroleum liquid entering the tank. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

52. Construction, reconstruction, or modification of this unit was commenced after July 23, 1984. Therefore, the requirements of 40 CFR 60 Subpart K and Ka do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

53. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids store in this unit to determine which oil are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

54. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit

55. Permittee shall maintain a daily record of the volume of petroleum liquid introduced into this tank. [District Rule2201] Federally Enforceable Through Title V Permit

56. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

57. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 2810 lbs, 2nd quarter - 2810 lbs, 3rd quarter - 2810 lbs, and 4th quarter - 2810 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

58. ERC Certificate Number S-3663-1 (or a certificate split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-447-0 **ISSUANCE DATE:** 03/19/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

EQUIPMENT DESCRIPTION:
UP TO 250,000 BBL INTERNAL (DOMED) FLOATING ROOF ORGANIC LIQUID STORAGE TANK (#71-T150M02) WITH STEAM COILS AND ANCILLARY EQUIPMENT, INCLUDING PUMPS AND PIPING

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Permittee shall comply with all 40 CFR Part 60 Subpart A notification, reporting, and recordkeeping requirements. [40 CFR 60, paragraph 60.7] Federally Enforceable Through Title V Permit
4. Reid vapor pressure of organic liquid stored shall not exceed 9.0 psia. [District Rules 2201, 4623 and 40 CFR Part 60: Subpart Kb] Federally Enforceable Through Title V Permit
5. Maximum daily throughput for tanks S-33-446 (71-T150M01) and S-33-447 (71-T150M02), combined, shall not exceed 225,000 bbls. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Maximum annual throughput for tanks S-33-446 (71-T150M01) and S-33-447 (71-T150M02), combined, shall not exceed 54,750,000 bbls. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC emissions from this unit, including VOC emissions from fugitive components , shall not exceed 29.8 lbs/day. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-447-0 : Mar 19 2015 8:33AM – RINALDIR : Joint Inspection Required with RINALDIR

8. VOC emissions from fugitive components (valves, flanges, connectors, pump seals, etc.) shall not exceed 0.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

9. Operator shall maintain records demonstrating compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually thereafter. Compliance shall be demonstrated by calculation, using an accurate component count and the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period [District Rule 2201] Federally Enforceable Through Title V Permit

10. Seal designs shall be submitted to the APCO and shall not be installed or used unless they are approved by the APCO as meeting the criteria set forth in Sections 5.3.2.1 through 5.3.2.3 as applicable. Seal designs other than set forth in Sections 5.3.2.1 through 5.3.2.3 may be approved provided that a notice allowing the use of such design has been published in the Federal Register pursuant to CFR 40 Part 60: Subpart Kb paragraph 60.114b. [District Rule 4623] Federally Enforceable Through Title V Permit

11. The floating roof shall be floating on the surface of the stored liquid at all times (i.e., off the roof leg supports) except during the initial fill until the roof is lifted off the leg supports and when the tank is completely emptied and subsequently refilled. When the roof is resting on the leg supports the processes of filling or emptying and refilling the tank shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five calendar days prior to performing the work. The tank must be in compliance with this rule before it may land the roof on its legs. [District Rule 4623; 40 CFR 60.112b(a)(1)(i) and 63.11087(a)] Federally Enforceable Through Title V Permit

12. No gap between the tank shell and the primary seal shall exceed 1-1/2 inches. [District Rule 4623] Federally Enforceable Through Title V Permit

13. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit

14. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit

15. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit

16. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit

17. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit

18. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit

19. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623] Federally Enforceable Through Title V Permit

20. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623 and 40 CFR 60.113b(b)(4)(i)(B) and (ii)(C)] Federally Enforceable Through Title V Permit

21. The secondary seal shall allow easy insertion of probes of up to 1-1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit

22. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. All openings in the roof used for sampling and gauging, except pressure-vacuum relief valves, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be leak free, except when the device or appurtenance is in use. [District Rule 4623] Federally Enforceable Through Title V Permit

24. The pressure-vacuum relief valve shall be set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623] Federally Enforceable Through Title V Permit

25. A leak-free condition is defined as a condition without a gas or liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv as methane, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of an organic liquid at a rate of more than three (3) drops per minute. A reading in excess of 10,000 ppmv as methane above background or a liquid leak of greater than three (3) drops per minute is a violation of this permit and Rule 4623 and shall be reported as a deviation, unless this tank is a part of Voluntary Tank Preventive Inspection and Maintenance, and Tank Interior Cleaning Program under section 5.7 of Rule 4623 and complies with all requirements in Table 5 of Rule 4623 for Internal Floating Roof Tank Preventative Inspection and Maintenance. [District Rule 4623] Federally Enforceable Through Title V Permit

26. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents shall provide a projection below the liquid surface. [District Rule 4623; 40 CFR 60.112b(a)(1)(iii) and 63.11087(a)] Federally Enforceable Through Title V Permit

28. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623; 40 CFR 60.112b(a)(1)(iv) and 63.11087(a)] Federally Enforceable Through Title V Permit

29. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623; 40 CFR 60.112b(a)(1)(v) and 63.11087(a)] Federally Enforceable Through Title V Permit

30. Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623; 40 CFR 60.112b(a)(1)(vi) and 63.11087(a)] Federally Enforceable Through Title V Permit

31. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623; 40 CFR 60.112b(a)(1)(vii) and 63.11087(a)] Federally Enforceable Through Title V Permit

32. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623; 40 CFR 60.112b(a)(1)(viii) and 63.11087(a)] Federally Enforceable Through Title V Permit

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34. For solid guidepole, all solid sampling or gauging wells, and similar fixed projections through the floating roof such as anti-rotational pipe shall provide a projection below the liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

35. For solid guidepole, the gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit

36. For slotted guidepole, all slotted sampling or gauging wells, and similar fixed projections through the floating roof shall provide a projection below the liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit

37. For slotted guidepole, the gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/8 inch. [District Rule 4623] Federally Enforceable Through Title V Permit

38. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623; 40 CFR 60.113b(a)(1) and 63.11092(e)(1)] Federally Enforceable Through Title V Permit

39. The permittee shall visually inspect, through the manholes, roof hatches, or other opening on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of hydro carbon vapors. Any defects found are violations of rule 4623. [District Rule 4623; 40 CFR 60.113b(a)(2) and 63.11092(e)(1)] Federally Enforceable Through Title V Permit

40. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. Other than the gap criteria specified by this permit, no holes, tears, or other openings are allowed that would permit the escape of hydrocarbon vapors. Any defects found shall constitute a violation of this Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit

41. If any failure (i.e. visible organic liquid on the internal floating roof, holes or tears in the seal fabric) is detected during 12 month visual inspection, the permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If the detected failure cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the APCO in the inspection report. Such a request must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(a)(2) and 63.11092(e)(1)] Federally Enforceable Through Title V Permit

42. The permittee shall notify the District in writing at least 30 days prior to conducting the visual inspection of the storage vessel, so the District can arrange an observer. [40 CFR 60.113b(a)(5) and 63.11092(e)(1)] Federally Enforceable Through Title V Permit

43. The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this Rule 4623, including the following: 1) Date the storage vessel was emptied, date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Observed condition of each component of the control equipment (seals, internal floating roof, and fittings). 4) Measurements of the gaps between the tank shell and primary and secondary seals. 5) Leak free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in parts per million by volume (ppmv). 6) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.4 and 5.5.2.4.3 of Rule 4623. 7) Nature of defects and any corrective actions or repairs performed on the tank in order to comply with rule 4623 and 40 CFR Part 60 Subpart Kh and the date(s) such actions were taken. [District Rule 4623; 40 CFR 60.115b(a)(2), 60.115b(a)(3), and 63.11094(a)] Federally Enforceable Through Title V Permit

44. The permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [40 CFR 60.116b(b)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

45. Operator shall keep a record of type of liquids stored in each container, period of storage, storage temperature, and both the Reid and maximum true vapor pressure of such liquids. [District Rule 4623] Federally Enforceable Through Title V Permit

46. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.116b(e)] Federally Enforceable Through Title V Permit

47. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

48. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, or method D5191, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit

49. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit

50. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products. [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit

51. Operator shall determine the true vapor pressure and API gravity for each petroleum liquid stored in the tank at least once per year in accordance with methods described herein.. Determinations shall be made annually during summer and whenever there is a change in the originating source or type of petroleum liquid entering the tank. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

52. Construction, reconstruction, or modification of this unit was commenced after July 23, 1984. Therefore, the requirements of 40 CFR 60 Subpart K and Ka do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

53. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids store in this unit to determine which oil are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

54. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit

55. Permittee shall maintain a daily record of the volume of petroleum liquid introduced into this tank. [District Rule2201] Federally Enforceable Through Title V Permit

56. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

57. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 2810 lbs, 2nd quarter - 2810 lbs, 3rd quarter - 2810 lbs, and 4th quarter - 2810 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

58. ERC Certificate Number S-3663-1 (or a certificate split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: S-3303-1-6 **ISSUANCE DATE:** 03/18/2015

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: P O BOX 1551
BAKERSFIELD, CA 93302-1551

LOCATION: 2436 FRUITVALE AVENUE
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF TRUCK LOADING OPERATION INCLUDING 36 BOTTOM LOADING ARMS, 6 TOP LOADING ARMS AND VAPOR RECOVERY ARMS SERVED BY VAPOR RECOVERY SYSTEM LISTED ON PERMIT S-33-41: ADDITION OF FOUR BOTTOM LOADING ARMS AND TWO TOP LOADING ARMS; NEW JET ADDITIVE TANK AND PUMP(S); ADDITIVE TOTES AND PUMPS; PIPING MODIFICATIONS

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Loading arms shall establish a seal with delivery vessels that is leak-free, as defined in Rule 4624 (amended December 20, 2007). [District Rule 4624, 5.6] Federally Enforceable Through Title V Permit
4. Top loading arms shall be used to load fuel oil and residual oil only. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Throughput of fuel oil and vacuum residue from this permit unit this shall not exceed 1,056,000 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Vapor return arms shall be connected during diesel loading if TVP exceeds 0.008 psia at loading conditions. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-3303-1-6 : Mar 18 2015 1:02PM – RINALDIR : Joint Inspection Required with RINALDIR

7. Vapor return arms shall be connected during diesel loading if vessel being loaded previously carried petroleum liquid with TVP greater than 0.008 psia at loading conditions. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Vapor return arms shall be connected during gas oil, fuel oil, heavy fuel oil or vacuum residue loading with TVP greater than 0.0012 psia at loading conditions. [District NSR Rule 2201] Federally Enforceable Through Title V Permit

9. Vapor return arms shall be connected during gas oil, fuel oil, heavy fuel oil or vacuum residue loading if vessel being previously loaded carried petroleum liquid with TVP greater than 0.0012 psia at loading conditions. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Hose couplers shall be of dry-break type to prevent liquid spill upon disconnection. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Liquid and vapor hoses, couplers, fittings and piping shall be maintained in a condition that is leak-free, as defined in Rule 4624 (amended December 20, 2007). [District Rule 4624, 5.6] Federally Enforceable Through Title V Permit

12. Fugitive VOC emission rate, excluding leakage, shall not exceed 48.5 lb/day from this permit unit. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

15. VOC emissions form organic liquid loading leakage and spillage shall not exceed 4.6 lb/day from this permit unit. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Operator shall ensure that all required source testing conforms to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

17. Operator shall maintain all records of required monitoring data and support information for inspection for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. The loading rack shall be equipped with bottom loading and a vapor collection and control system such that TOC emissions do not exceed 0.08 pounds per 1000 gallons of organic liquid with greatest vapor pressure loaded. [40 CFR 60.502(b), District Rules 2520, 9.3.2 and 4624, 5.1 and Kern County Rule 413] Federally Enforceable Through Title V Permit

19. Vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum. [40 CFR 60.502(h), District Rule 4624, 5.4 and Kern County Rule 413] Federally Enforceable Through Title V Permit

20. The transfer of gasoline from any delivery vessel to any stationary storage container with 250 gallon capacity or more shall not be allowed unless the container is equipped with a permanent submerged fill pipe and an ARB certified Phase I vapor recovery system, which is maintained and operated according to the manufacturers specifications. [District Rule 4621, 5.1.1] Federally Enforceable Through Title V Permit

21. All delivery tanks which previously contained organic liquids, including gasoline, with a TVP of 1.5 psia or greater at the storage container's maximum organic liquid storage temperature shall be filled only at Class 1 loading facilities using bottom loading equipment with a vapor collection and control system operating such that VOC emissions do not exceed 0.08 lb/1000 gallons loaded. [District Rules 4624, 5.5] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

22. No gasoline delivery vessel shall be used or operated unless it is vapor tight. No gasoline delivery vessel shall be operated or loaded unless valid State of California decals are displayed on the cargo tank, attesting to the vapor integrity of the tank as verified by annual performance of CARB required Certification and Test Procedures for Vapor Recovery Systems for Cargo Tanks. [District Rule 4621, 5.2.1 & 5.2.2, Health & Safety Code, section 41962, and CCR, Title 17 section 94004] Federally Enforceable Through Title V Permit

23. The test method to determine vapor tightness of delivery vessels owned or operated by this facility shall be EPA Method 27. [District Rule 4621, 6.2.3 and 40 CFR 60.503(c)] Federally Enforceable Through Title V Permit

24. Construction, reconstruction (as defined in District Rule 4001, amended April 14, 1999), or expansion of any top loading facility shall not be allowed , except for transfer of organic liquids with TVP less than 1.5 psia at the storage container's maximum organic liquid storage temperature. [District Rule 4624, 4.3 & 5.7] Federally Enforceable Through Title V Permit

25. Transfer and vapor collection and control equipment shall be designed, installed, maintained and operated such that there are no leaks or excess organic liquid drainage at disconnections. A leak shall be defined as the dripping of organic compounds at a rate of more than three drops per minute or the detection of organic compounds, in excess of 10,000 ppm as methane measured at the interface of the component from the potential source in accordance with EPA Method 21. Excess liquid drainage shall be defined as exceeding 10 mL per average of 3 consecutive disconnects. [District Rule 4624, 3.13, 3.17, and 5.6; and Kern County Rule 413] Federally Enforceable Through Title V Permit

26. During the transfer of organic liquids, the operator shall perform and record the results of monthly leak inspections of the loading and vapor collection equipment at each transfer rack. Leak inspections shall be conducted using sight, sound, or smell. Once each calendar quarter, in lieu of the regular monthly monitoring, the operator shall monitor the vapor collection and control system and each transfer rack using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rule 4624, 5.9.1 and 6.3.8, and 40 CFR 60.502(j)] Federally Enforceable Through Title V Permit

27. Corrective steps shall be taken at any time the operator observes excess drainage at disconnect. In addition, the operator shall perform and record the results of drainage inspections at disconnect conducted on a quarter of the loading arms every calendar quarter. However, if one or more excess drainage condition is found during a quarterly inspection, the inspection frequency shall change to quarterly for all loading arms. If no excess drainage is found after four consecutive quarterly inspection of all loading arms, the inspection frequency shall return to inspections of a quarter of the loading arms every calendar quarter. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Compliance shall be demonstrated by collecting all drainage at disconnect in a spouted container. The drainage shall be transferred to a graduated cylinder and the volume determined within one (1) minute of collection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. Each leaking component shall be repaired or replaced within 72 hours after detection. If the leaking component cannot be repaired or replaced within 72 hours, it shall be taken out of service until such time as it is repaired or replaced. Components taken out of service shall be repaired or replaced within 15 calendar days of leak detection. [District Rule 4624, 5.9.3 and 40 CFR 60.502(j)] Federally Enforceable Through Title V Permit

30. The permittee shall maintain an inspection log containing at least the following: A) dates of leak and drainage inspections, B) leak determination method, C) findings, D) corrective action (date each leak or excess drainage condition repaired, reasons for any leak repair interval in excess of 15 days), and E) inspector name and signature. [District Rule 4624, 6.1.3 and 40 CFR 60.505(c)] Federally Enforceable Through Title V Permit

31. The loading rack's vapor collection and control system (VCCS) shall be tested annually to demonstrate the pressure in the delivery tanks being loaded complies with the requirements specified in this permit. Compliance shall be determined by calibrating and installing a liquid manometer, magnehelic device, or other instrument demonstrated to be equivalent, capable of measuring up to 500 mm water gauge pressure with a precision of ±2.5 mm water gauge, on the terminal's VCCS at a pressure tap as close as possible to the connection with the product tank truck. The highest instantaneous pressure measurement as well as all pressure measurements at 5 minute intervals during delivery vessel loading must be recorded. Every loading position must be tested at least once during the annual performance test. [District Rule 2520, 9.3.2 and 40 CFR 60.503(d)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

32. Loading of a delivery vessel shall discontinue if its pressure relief valve opens. Corrective action shall be taken should this condition occur. [District Rule 2520, 9.1] Federally Enforceable Through Title V Permit

33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: Kern County Rule 413, District Rules 4621 (as amended December 20, 2007), section 5.7, and 4624 (as amended December 20, 2007). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40CFR60, Subpart XX. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

35. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 79 lbs, 2nd quarter - 79 lbs, 3rd quarter - 79 lbs, and 4th quarter - 79 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

36. ERC Certificate Number S-3663-1 (or certificates split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

37. Formerly S-33-45-0.

Final Decision
San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Crude Flexibility Project

Facility Name:	Alon USA – Bakersfield Refinery	Date:	March 19, 2015
Mailing Address:	6451 Rosedale Hwy. Bakersfield, CA 93308	Engineer:	Robert Rinaldi
		Lead Engineer:	Richard Karrs
Contact Person:	Helen Ordway		RWK 3/19/15
Telephone:	(661) 326-4422		
Fax:	(661) 326-4255		
E-Mail:	helen.ordway@alonusa.com		

Application #'s:	S-33-8-26, '-9-18, '-10-8, '-11-13, '-12-12, '-13-25, '-49-8, '-52-18, '-56-30, '-63-13, '-112-5, '-124-10, '-138-7, '-139-5, '-349-18, '-372-4, '-440-0, '-441-0, '-442-0, '-443-0, '-444-0, '-445-0, '-446-0, '-447-0 and S-3303-1-6
Project #'s:	S-1134224 & S-1134223
Deemed Complete:	November 19, 2013

I. Proposal

Alon USA has requested Authorities to Construct (ATCs) to install new equipment and modify several process units and combustion units within Refinery Areas 1, 2, and 4 and the Refinery Petroleum Products (Gasoline) Terminal.

The objectives of the Project are to provide greater flexibility for the Refinery to utilize a variety of crude oils that can be processed by the facility in order to better manage operational costs and also to increase efficiency of onsite production. In addition, the Project will expand the existing crude terminal operations of the facility. In order to accomplish the Project objectives, facilities must be installed to enable crude delivery via unit train and transfer of crude into the refinery for processing and into the existing pipeline network for transfer to other refineries. As part of the Project, minor unit efficiency upgrades and modifications are planned to enhance operating flexibility required to process crude oils with different physical properties.

The refinery's 70,000 barrels per day (BPD) maximum crude processing capacity will not be increased. The modifications that are proposed in the process units described in the Process Description section below include some new equipment, equipment upgrades and piping modifications.

Alon USA received their Title V Permit on February 28, 2003. This modification can be classified as a significant Title V modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. Alon USA must apply to administratively amend their Title V permit.

II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review (4/21/11)
Rule 2410 Prevention of Significant Deterioration (6/16/11)
Rule 2520 Federally Mandated Operating Permits (6/21/01)
Rule 2550 Federally Mandated Preconstruction Review for Major Sources of Air Toxics (06/18/98)
Rule 4001 New Source Performance Standards (4/14/99)
Rule 4002 National Emission Standards for Hazardous Air Pollutants (05/20/04)
Rule 4101 Visible Emissions (2/17/05)
Rule 4102 Nuisance (12/17/92)
Rule 4201 Particulate Matter Concentration (12/17/92)
Rule 4202 Particulate Matter Emission Rate (12/17/92)
Rule 4301 Fuel Burning Equipment (12/17/92)
Rule 4305 Boilers, Steam Generators and Process Heaters – Phase 2 (08/21/03)
Rule 4306 Boilers, Steam Generators and Process Heaters – Phase 3 (10/16/08)
Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr (10/16/2008)
Rule 4351 Boilers, Steam Generators and Process Heaters – Phase 1 (08/21/03)
Rule 4454 Refinery Process Unit Turnaround (12/17/92)
Rule 4455 Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants (4/20/05)
Rule 4623 Storage of Organic Liquids (5/19/2005)
Rule 4624 Transfer of Organic Liquid (12/20/2007)
Rule 4801 Sulfur Compounds (12/17/92)
40 CFR Part 64 Compliance Assurance Monitoring
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The refinery is located at 6451 Rosedale Highway, Bakersfield, CA 93308. The Refinery Petroleum Products (Gasoline) Terminal is located at 2436 Fruitvale Avenue, Bakersfield, CA 93308. The proposed equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

The improvements and modifications to the Refinery include expanded rail, transfer and storage facilities, as well as upgrades and modifications to permitted process units.

The Project will construct a double rail loop for crude transported to the Bakersfield refinery via unit trains. A new spur will connect to the existing BNSF rail line that runs east-west, bisecting the Refinery. This spur will enter the Refinery at the northwest corner of Area 4, and tie into the new rail loops in Area 2 and Area 4. The loop tracks will utilize existing rail spurs 103 and 104 as well as the existing east switch back to the BNSF mainlines. To allow access to Area 2 process units, a new grade separation (either a rail overpass or underpass) will be constructed to allow vehicular travel when unit trains are on the double rail loop.

A new unloading facility will be constructed to offload crude oil from rail cars. Offloaded crude initially will be metered through two new up to 25,000-barrel fixed roof custody transfer tanks. After metering, the offloaded crude will be pumped to two new up to 250,000-barrel internal (domed) floating roof crude oil storage tanks for either refinery crude unit charge or shipment off-site via third party pipelines. Three new packaged boilers equipped with low NOx burners will be constructed to provide steam for heating the rail cars and tanks.

Because of the location of the new double rail loop and the need to construct a grade separation to allow vehicular access to Area 2 process units, two existing truck loading/unloading racks (comprising three lanes) will need to be relocated (with an additional position at the new location), and an existing LPG rail car loading rack will need to be dismantled.

Modifications to existing permitted process units and storage tanks will be implemented to enhance operating flexibility required to process crude oils with different physical properties. Most of the process unit changes are minor in nature, e.g., new pumps, replacement of old compressors with new equipment, additional control valves and new heat exchangers. Aside from these minor changes, the following modifications will be made:

- A new "flash" tower and associated equipment will be constructed in the Crude Unit (Unit 10, S-33-8), and a new Jet Treater will be located in either the Crude Unit or in the tank farm;
- A new reactor and associated equipment will be added and an existing heater will be upgraded in the Hydrocracker Unit (Unit 21, S-33-56);

- The existing Phosam ammonia production unit will be taken out of service along with its associated anhydrous ammonia bullet (which will be converted to propane service) in the Sour Water and Oily Waste Water Operation (Unit 23, S-33-63); and the process will be modified to operate Unit 23 as a sour water stripper directing acid gas from the stripper to the sulfur plant;
- An existing heater will be upgraded in Naphtha Hydrotreater #3 (Unit 26, S-33-52);
- Parallel reactor(s), vessels, and associated equipment will be added and an existing heater will be upgraded in the CD Hydro Unit (Unit 27, S-33-349);
- A new fuel gas LPG recovery unit, including a propane refrigeration skid, will be added in Gas Plant 2/Amine Unit (Unit 25, S-33-124);
- Some gasoline loading arms will be converted to diesel/jet, the existing diesel loading arms will be dual-purposed to diesel/jet, and new diesel/jet loading arms will be added to the Sales Terminal Truck Loading Rack (S-3303-1); and
- Modifications to various tanks will be made to change service, add steam coils, and add mixers.

Specific changes to each permit unit:

Unit 8/9 Naphtha Hydrotreater #1 (S-33-11, S-33-12)

- Pumps, heat exchangers, and fin fans will be upgraded. In addition, to increase Unit 8's energy efficiency, the existing charge heater (8-H1) convection section will be replaced.

Units 10/11 Crude and Vacuum Units (S-33-8, S-33-9)

In order to process a wider range of crudes, the Crude Unit Atmospheric Crude Tower (10-V1) will be upgraded. This may include the addition of a crude "flash" tower and associated ancillary equipment to improve the unit's cuts. Other changes include new pumps, nozzles, a jet draw, and new and re-serviced exchangers. To improve temperature control of the existing SCR and improve the energy efficiency of heater 10-H1, a new heat recovery coil will be installed at the inlet of the SCR.

A new Jet Treater will be located in either the Crude Unit (Unit 10, S-33-8) or in the tank farm. For the purposes of this permitting action, the equipment will be associated with PTO S-33-8. The Jet Treater adjusts the pH of the jet fuel product, removes excess water, and filters the fuel to meet product specifications.

Unit 12 Light Ends Unit (S-33-10)

In order to process a wider range of crudes, additional heat removal exchanger(s) will be added to the overhead system and pumps will be upgraded.

Unit 14 Mild Hydrocracker (S-33-13)

New pumps will be added and existing pumps and heater tubing will be upgraded. In addition, a new salt drier and water coalescer will be added to the kerosene product stream to improve the quality of the jet fuel product. Two existing Fractionator Overhead Compressors (14-C3A/B) will be replaced with new compressors and associated equipment.

To improve the efficiency and reliability of the amine system, an existing Recycle Gas Scrubber will be upgraded and new (replacement) amine feed pumps will be installed. The upgrades will improve amine circulation rate thereby reducing amine loading and improving reliability.

Unit 15 Sour Water Stripping Operation (S-33-15)
In order to conserve water and reduce the facility's waste water discharges, a new steam reboiler for 15-V12 (Sour Water Stripper) will be installed. This steam reboiler is not a fired unit, and no fugitive emissions are anticipated from the equipment.

Unit 21 Hydrocracker (S-33-56)
A new reactor with associated equipment in the Hydrocracker Unit (HCU) will be installed. In addition, new hydrogen recycle compressor(s) and a hydrogen make-up compressor(s) will be installed. Existing permitted Heater 26-H17 (S-33-52) will be retrofitted with low NOx burners and returned to service as Heater 21-H21. There will be no increase in heat input rate to the existing heater. Lastly, as a water conservation measure, new piping and instrumentation will be installed to allow recycling of wash water in the HCU.

Unit 23 Sour Water and Oily Waste Water Operation (S-33-63)
Feeds and products for 23-V4 and 23-V5 will be re-piped to bypass the existing Phosam equipment (NH_3 recovery section), which is no longer necessary. This modification eliminates production and storage of anhydrous ammonia. Unit 23 will be modified to operate as a sour water stripper directing acid gas from the stripper to the sulfur plant.

Unit 25 Gas Plant 2/Amine Unit (S-33-124)
In order to reduce the concentration of LPG in the refinery fuel gas, a new LPG recovery unit will be constructed and installed on the fuel gas system. The unit will consist of fuel gas compressors, knock out drums, and a propane refrigeration unit. The recovered LPG will be sent to the existing gas plant and the fuel gas will be burned in the refinery's process heaters and boilers.

Unit 26 Naphtha Hydrotreater #3 (S-33-52)
Pumps, heat exchangers and fin fans will be upgraded in the Hydrotreater. Existing permitted Heater 26-H13 will be retubed, and retrofit with low NOx burners. The heater will be returned to service. (Note that Heater 26-H13 shares a common stack with Heater 26-H15, which will not be modified.)

Unit 27 CD Hydro Unit (S-33-349)
Modifications will be made to ensure proper processing of additional light hydrocarbons in various crude oils. Modifications include the addition of parallel reactor(s), vessels, new pumps and exchangers, and the upgrading of existing pumps and exchangers. Existing permitted Heater 11-H11 (S-33-49) will be retrofit with low NOx burners and returned to service as Heater 27-H2.

LPG/Natural Gasoline Truck Loading/Unloading Lanes (S-33-372)
The existing two lane LPG truck loading/unloading rack, along with the existing one lane Truck Unloading Rack #5 (S-33-70), will be relocated east of their current location, and a fourth lane will be added. The relocation of the LPG truck rack is necessitated by the proposed expanded rail facilities and construction of a new grade separation. There will be no operational or emission increases associated with this modification. Fugitive component counts (and therefore emissions) are expected to be the same as or less than what is currently installed.

Truck Unloading Rack #5 (S-33-70)
The existing one lane truck unloading rack, along with the existing two lane LPG/natural gasoline truck loading/unloading rack (S-33-372), will be relocated east of their current location, and a fourth lane will be added. The relocation of the rack is necessitated by the proximity to the proposed expanded rail facility and new grade separation. There will be no operational or emission increases associated with the relocation. Fugitive component counts are expected to be the same as or less than what is currently installed.

LPG/Natural Gasoline Railcar Loading/Unloading Racks (S-33-373)
The existing LPG rail car loading rack will be dismantled. The dismantling of the LPG rail car rack is necessitated by the proposed expanded rail facilities and construction of a new grade separation.

New Crude Oil Rail Car Unloading Facility (S-33-440)
To support crude oil unloading from an average of two unit trains per day, a new 52-position crude oil rail car unloading facility will be constructed to support simultaneous unloading of crude oil from 26 rail cars on each of two rail loops. The trains will transport crude oil from outside of California to the Alon refinery.

Steam stations (fed by steam from three new boilers, discussed separately) will be included within the facility to allow offloading of heavy crude. The crude oil rail car unloading facility will be designed to offload an average of 150,000 barrels of crude oil per day into new tankage.

Rule 2201 includes requirements for Cargo Carriers, i.e. it requires that emissions from Cargo Carriers be subject to emission offset requirements. Rule 2201 defines Cargo Carriers as:

> Trains dedicated to a specific Stationary Source and vessel dockside activities as defined in 45 Federal Register 52696 (August 7, 1980) for vessels dedicated to a specific Stationary Source. Motor vehicles, as defined by the Vehicle Code of the State of California, are not considered Cargo Carriers.

Please note that there are no vessels (ships, barges, etc.) dedicated to the stationary source. When the trains delivering crude oil are on the refinery property they are dedicated to the stationary source, and are therefore cargo carriers as defined in Rule 2201. Emissions from the trains when operating on the refinery property are cargo carrier emissions and are subject to the emission offset requirements of Rule 2201 section 4.7.1.2.

Prior to arriving and after leaving the refinery property the trains are not part of the refinery stationary source, i.e. they are not located on the same property as the refinery. As such the trains are not part of the refinery stationary source and are therefore not dedicated to the stationary source. Therefore, when the trains are not located at the refinery stationary source,

they are not dedicated to the stationary source and are not cargo carriers as defined in Rule 2201. Emissions from the trains when they are not located at the refinery stationary source are not cargo carrier emissions, and are not subject to the offset requirements of Rule 2201 section 4.7.1.2.

The above determination is consistent with the current requirements of Federal non-attainment new source review (as codified in 40 CFR 51.165).

Federal new source review requirements for train emissions have evolved greatly in the past decades. Since the 1977 Clean Air Act amendments, the requirements of Federal new source review as they pertain to the definition of stationary source and when and how secondary emissions are considered have changed multiple times, most recently in 1989 in which the current definition of stationary source and secondary emissions were established.

Current federal non-attainment new source review requirements expressly exclude train emissions from the definition of "secondary emissions" as used in 40 CFR 51.165:

> *Secondary emissions do not include any emissions which come directly from a mobile source such as emissions from the tailpipe of a motor vehicle, from a train, or from a vessel.*

Therefore, federal non-attainment new source review does not provide a basis to require such emissions to be considered in NSR decisions, including requirements for emission offsets for train emissions when they occur outside the boundaries of the stationary source. However, when train emissions occur within a stationary source, they are not secondary emissions; rather they occur from the operation of the stationary source itself. Federal new source review allows for offsets to be required when train emissions occur as part of operation of a stationary source.

The offset requirements imposed for the on-site train emissions associated with this project are consistent with the requirements of Rule 2201 and the requirements of federal non-attainment new source review. The quantity of offsets required is discussed under the "Quantity of Offsets Required" section, below.

New Boilers (S-33-441, '-442 & '-443)
Three new packaged boilers will be installed to provide steam feed for the crude oil rail car unloading facility steam stations and tank steam coils, to allow transfer and storage of heavy crude oil. Each boiler will have a maximum heat input capacity of 21 MMBtu/hr and will be built with low NOx burners fired on PUC-quality natural gas.

New Tanks (S-33-444 thru '-447)
New custody transfer tanks, new crude oil storage tanks, and Inter-tank piping and pumps will be installed to facilitate movement of crude oil from the unit train rail car into storage, as indicated below:

- New Tank 71-T10M25 (S-33-444), an up to 25,000 barrel fixed roof custody transfer tank equipped with vapor recovery.
- New Tank 71-T10M26 (S-33-445), an up to 25,000 barrel fixed roof custody transfer tank equipped with vapor recovery, along with a steam coil
- New Tank 71-T150M01 (S-33-446), an up to 250,000 barrel internal (domed) floating roof storage tank, along with a steam coil.
- New Tank 71-T150M02 (S-33-447), an up to 250,000 barrel internal (domed) floating roof storage tank, along with a steam coil.

Tank Changes Requiring Permit Modifications (S-33 – Multiple Locations)
Tank changes that will require permit modification include:

- Permitted but out of service tanks 70-T11007 (S-33-138) and 70-T11008 (S-33-139) will be put back in service as asphalt or vacuum tower bottoms (VTB)[1] tanks, heating coils will be re-installed, and mixers and odor control will be installed; and
- Tank 71-T96M01 (S-33-112) will be equipped with steam coils and a mixer to permit the storage of heavy crude. This tank is currently storing light crude, which has a higher emissions potential than heavy crude.

Sales Terminal Truck Loading Rack (S-3303-1)
Existing diesel arms will be dual purposed to permit the loading of both diesel and jet fuel. (Diesel and jet fuel have similar properties and therefore there is no increase in emissions or risk by dual purposing the loading arms.) In addition, new diesel/jet loading arms will be constructed in lanes 5 and 6 of the loading rack. Four bottom loading arms and two top loading arms will be added to the unit.

V. Equipment Listing

Pre-Project Equipment Description:

S-33-8-25: CRUDE UNIT #10 INCLUDING 209 MMBTU/HR GAS FIRED HEATER 10-H1 WITH WATER SPRAY NOZZLES FOR FLUE GAS COOLING AND SELECTIVE CATALYTIC REDUCTION (SCR), 65 MMBTU/HR GAS FIRED HEATER 10-H2, CRUDE TOWER 10-V1, DIESEL/AGO STRIPPER 10-V2A/B, DESALTER AND MISC. HEAT EXCHANGERS, PUMPS, PIPING AND VESSELS - AREA 1

S-33-9-17: VACUUM UNIT #11 INCLUDING NATURAL GAS/REFINERY GAS FIRED VACUUM CHARGE HEATERS 11H1 AND 11H2 (DE-RATED AT 130 MMBTU/HR TOTAL), VACUUM TOWER, FOUR STAGE VACUUM SYSTEM WITH GAS AMINE CONTACTOR AND MISC. PUMPS, PIPING, AND VESSELS - AREA 1

S-33-10-7: GAS PLANT #10 INCLUDING (UNIT 12) DEBUTANIZER 12-V1, NAPHTHA SPLITTER 12-V4, DEPROPANIZER 15-V1, AND MISC. PUMPS, PIPING, AND VESSELS - AREA 1

[1] Vacuum Tower Bottoms (VTB) are a mixture of asphalt, and/or heavy vacuum gas oil (HVCO), and/or unconverted oil (UCO). The VTB material will have an expected API gravity of between 8 and 18 degrees and is generally exempt from SJVAPCD air permitting requirements. A blended VTB contains two or more of these components and unblended VTB contains only one VTB component.

S-33-11-12: HYDROTREATER UNIT #8 INCLUDING 12.8 MMBTU/HR GAS-FIRED CHARGE HEATER (8-H1) WITH JOHN ZINK COOLSTAR LOW NOX BURNER, REACTOR (8-R1), SEPARATOR (8-V2), 12.8 MMBTU/HR GAS-FIRED REBOILER HEATER (8-H2) WITH JOHN ZINK COOLSTAR LOW NOX BURNER, STRIPPER (8-V4), STRIPPER RECEIVER (8-V8) AND MISC PUMPS, PIPING AND VESSELS - AREA 1

S-33-12-11: MODIFICATION OF CATALYTIC REFORMER #9 INCLUDING 4 REACTORS 9-R1, R2, R3 AND R4, 4 REFINERY FUEL GAS-FIRED HEATERS 38.5 MMBTU/HR 9-H1 AND 30.8 MMBTU/HR 9-H2 EACH WITH A CALLIDUS LOW NOX BURNER, 18.2 MMBTU/HR 9-H3 AND 9.2 MMBTU/HR 9-H4 EACH WITH A JOHN ZINK COOLSTAR LOW NOX BURNER, SEPARATOR 9-V3, DEPROPANIZER 9-V4, 10.1 MMBTU/HR REBOILER HEATER 9-H5 WITH A JOHN ZINK COOLSTAR LOW NOX BURNER, AND MISC PUMPS, PIPING, & VESSELS - AREA 1: PIPING MODIFICATIONS FOR PROCESSING OF GAS OIL

S-33-13-24: MILD HYDROCRACKER #14 INCLUDING 50 MMBTU/HR GAS FIRED CHARGE HEATER 14-H1, 40 MMBTU/HR GAS FIRED FEED HEATER 14-H2, REACTOR 14-R1, 4 SEPARATORS 14-04/5, V619, FRACTIONATOR 14-V1, DIESEL STRIPPER 14-V4 AND MISC PUMPS, HEAT EXCHANGERS, PIPING AND VESSELS - AREA 1

S-33-49-6: 161.4 MMBTU/HR CRUDE UNIT #11 INCLUDING HEATERS 11-H11, 11-H12, AND 11-H13, AND TOPPING ASSEMBLY - AREA 2

S-33-52-17: 86.8 MMBTU/HR CATALYTIC REFORMING UNIT #26 INCLUDING 6 HEATERS, HYDROSULFURIZATION ASSEMBLY; CATALYTIC ASSEMBLY, DEPENTANIZER SERVICE TOWER (26-V13), REBOILER STEAM CONDENSATE BALANCE DRUM (26-D31), 2 FEED/BOTTOMS EXCHANGERS (26-E45 A/B), 2 OVERHEAD CONDENSERS (26-E46 A/B), DISTILLATE COOLER (26-E47), 2 BOTTOMS PUMPS (26-P37 A/B), AND 2 REFLUX PUMPS (26 P38 A/B)

S-33-56-28: MODIFICATION OF HYDROCRACKER UNIT #21 INCLUDING 9 HEATERS , CATALYTIC ASSEMBLY, AND MISC AIR COOLERS, EXCHANGERS , DRUMS, AND PUMPS - AREA 2: DESIGNATE AS A COMPLIANT DORMANT EMISSIONS UNIT

S-33-63-12: SOUR WATER AND OILY WASTEWATER OPERATION INCLUDING HYDROCRACKER AND PHENOLIC SOUR WATER STRIPPING, PHOSAM UNIT, OIL WASTEWATER CLASSIFIER (83D-13), AND MISCELLANEOUS TANKS AND ASSOCIATED PIPING - AREA 2

S-33-112-4: 4,032,000 GALLON FLOATING ROOF PETROLEUM STORAGE TANK #96M01 WITH METALLIC SHOE PRIMARY SEAL AND WIPER SECONDARY SEAL

S-33-124-9: GAS PLANT #2 INCLUDING AMINE REGENERATION SYSTEM, VOC COALESCER, DRYER SYSTEM, DE-ETHANIZER, DE-PROPANIZER, PIPING TO SRU #1 (PTO #S-33-16) AND MISC. PUMPS, PIPING AND VESSELS

S-33-138-6: 462,000 GALLON FIXED ROOF STORAGE TANK #11007

S-33-139-4: 462,000 GALLON FIXED ROOF STORAGE TANK #11008

S-33-349-16: MODIFICATION OF CD HYDRO UNIT #27 INCLUDING 50 MMBTU/HR HEATER 27H1, ACCUMULATOR, FEED BOTTOM EXCHANGERS, CONDENSERS, REFORMATE COOLERS, REBOIL CIRCULATING PUMPS, REFLUX PUMPS, HYDROGEN FEED GUARD BED, HYDROGEN RECYCLE COMPRESSOR, BENZENE SATURATION COLUMN, & 2 HYDRO SULFUR GUARD DRUMS - AREA 2: DESIGNATE AS A COMPLIANT DORMANT EMISSIONS UNIT

S-33-372-3: LIQUEFIED PETROLEUM GAS AND NATURAL GASOLINE EAST AND WEST TRUCK LOADING/UNLOADING LANES WITH SEVEN PUMPS SERVED BY VAPOR RECOVERY SYSTEM

S-3303-1-6: TRUCK LOADING OPERATION INCLUDING 36 BOTTOM LOADING ARMS, 6 TOP LOADING ARMS AND VAPOR RECOVERY ARMS SERVED BY VAPOR RECOVERY SYSTEM LISTED ON PERMIT S-33-41

Proposed Modifications:

S-33-8-26: MODIFICATION OF CRUDE UNIT #10 INCLUDING 209 MMBTU/HR GAS FIRED HEATER 10-H1 WITH WATER SPRAY NOZZLES FOR FLUE GAS COOLING AND SELECTIVE CATALYTIC REDUCTION (SCR), 65 MMBTU/HR GAS FIRED HEATER 10-H2, CRUDE TOWER 10-V1, DIESEL/AGO STRIPPER 10-V2A/B, CRUDE OFF GAS COMPRESSOR 10-C2, DESALTER AND MISC. HEAT EXCHANGERS, PUMPS, PIPING, DRUMS, FIN FANS, AND VESSELS - AREA 1: MODIFICATIONS TO ATMOSPHERIC CRUDE TOWER (10-V1), DIESEL STRIPPER TOWER (10-V2A); NEW JET TREATER; NEW CRUDE PRE-FLASH TOWER; ADDITIONAL AND/OR REPLACEMENT EXCHANGERS, FIN FANS, AND PUMPS; AND PIPING MODIFICATIONS

S-33-9-18: MODIFICATION OF VACUUM UNIT #11 INCLUDING NATURAL GAS/REFINERY GAS FIRED VACUUM CHARGE HEATERS 11H1 AND 11H2 (DE-RATED AT 130 MMBTU/HR TOTAL), VACUUM TOWER, FOUR STAGE VACUUM SYSTEM WITH GAS AMINE CONTACTOR AND MISC. PUMPS, PIPING, AND VESSELS - AREA 1: PUMP AND PIPING MODIFICATIONS

S-33-10-8: MODIFICATION OF GAS PLANT #10 INCLUDING (UNIT 12) DEBUTANIZER 12-V1, NAPHTHA SPLITTER 12-V4, DEPROPANIZER 15-V1, AND MISC. PUMPS, PIPING, AND VESSELS - AREA 1: ADDITIONAL HEAT EXCHANGERS; PIPING, EXCHANGER MODIFICATIONS; AND PUMP REPLACEMENTS

S-33-11-13: MODIFICATION OF HYDROTREATER UNIT #8 INCLUDING 12.8 MMBTU/HR GAS-FIRED CHARGE HEATER (8-H1) WITH JOHN ZINK COOLSTAR LOW NOX BURNER, REACTOR (8-R1), SEPARATOR (8-V2), 12.8 MMBTU/HR GAS-FIRED REBOILER HEATER (8-H2) WITH JOHN ZINK COOLSTAR LOW NOX BURNER, STRIPPER (8-V4), STRIPPER RECEIVER (8-V8) AND MISC PUMPS, PIPING AND VESSELS - AREA 1: MODIFICATIONS TO NAPHTHA STRIPPER (8-V4), PUMPS, COMPRESSORS,HEAT EXCHANGERS, HEATER 8-H1 CONVECTION SECTION, PIPING, AND FIN FAN COOLERS; NEW PUMPS AND EXCHANGERS

S-33-12-12: MODIFICATION OF CATALYTIC REFORMER #9 INCLUDING 4 REACTORS 9-R1, R2, R3 AND R4, 4 REFINERY FUEL GAS-FIRED HEATERS 38.5 MMBTU/HR 9-H1 AND 30.8 MMBTU/HR 9-H2 EACH WITH A CALLIDUS LOW NOX BURNER, 18.2 MMBTU/HR 9-H3 AND 9.2 MMBTU/HR 9-H4 EACH WITH A JOHN ZINK COOLSTAR LOW NOX BURNER, SEPARATOR 9-V3, DEPROPANIZER 9-V4, 10.1 MMBTU/HR REBOILER HEATER 9-H5 WITH A JOHN ZINK COOLSTAR LOW NOX BURNER, AND MISC PUMPS, PIPING, & VESSELS - AREA 1: MODIFICATIONS TO PIPING, PUMPS, HEAT EXCHANGERS, AND FIN FAN COOLERS

S-33-13-25: MODIFICATION OF MILD HYDROCRACKER #14 INCLUDING 50 MMBTU/HR GAS FIRED CHARGE HEATER 14-H1, 40 MMBTU/HR GAS FIRED FEED HEATER 14-H2, REACTOR 14-R1, 4 SEPARATORS 14-04/5, V619, FRACTIONATOR 14-V1, DIESEL STRIPPER 14-V4 AND MISC PUMPS, HEAT EXCHANGERS, PIPING AND VESSELS - AREA 1: ADD PUMPS, MODIFY EXISTING PUMPS AND 14-H1 HEATER TUBING; ADD SALT DRIER AND WATER COALESCER TO THE KEROSENE PRODUCT STREAM; INSTALL TWO NEW FRACTIONATOR OVERHEAD COMPRESSORS (14-C4A/B) AND ANCILLARY EQUIPMENT IN PARALLEL WITH EXISTING FRACTIONATOR OVERHEAD COMPRESSORS (14-C3A/B), UPGRADE RECYCLE GAS SCRUBBER AND REPLACE AMINE FEED PUMPS; REPLACE HIGH PRESSURE SEPARATOR (14-D4); EXCHANGER UPGRADES; PIPING MODIFICATIONS; MODIFY OR REPLACE RECYCLE GAS SCRUBBER (914-V3).

S-33-49-8: MODIFICATION OF 161.4 MMBTU/HR CRUDE UNIT #11 INCLUDING HEATERS 11-H11, 11-H12, AND 11-H13, AND TOPPING ASSEMBLY - AREA 2: TRANSFER HEATER 11-H11 TO PERMIT S-33-349 AND RENAME HEATER 27-H2

S-33-52-18: MODIFICATION OF 86.8 MMBTU/HR CATALYTIC REFORMING UNIT #26 INCLUDING 6 HEATERS, HYDROSULFURIZATION ASSEMBLY; CATALYTIC ASSEMBLY, DEPENTANIZER SERVICE TOWER (26-V13), REBOILER STEAM CONDENSATE BALANCE DRUM (26-D31), 2 FEED/BOTTOMS EXCHANGERS (26-E45 A/B), 2 OVERHEAD CONDENSERS (26-E46 A/B), DISTILLATE COOLER (26-E47), 2 BOTTOMS PUMPS (26-P37 A/B), AND 2 REFLUX PUMPS (26 P38 A/B) , DESULFURIZER REFORMER RECYCLE COMPRESSORS (26-C11, 26-C12, 26-C13), STRIPPER GAS COMPRESSOR (26-C14), DESULFURIZER BOOSTER COMPRESSOR (26-C15), AND MISC. DRUMS, FIN FANS, EXCHANGERS, AND PIPING: RETROFIT HEATER 26-H13 WITH LOW NOX BURNERS AND REMOVE DORMANT STATUS; TRANSFER HEATER 26-H17 TO PERMIT S-33-56 AND RENAME HEATER 21-H21; UPGRADE PUMPS, HEAT EXCHANGERS AND FIN FANS; MODIFY PIPING

S-33-56-30: MODIFICATION OF HYDROCRACKER UNIT #21 INCLUDING 9 HEATERS, CATALYTIC ASSEMBLY, HYDROGEN COMPRESSOR/RECYCLE COMPRESSORS 21-C11A/B AND 21-C12A/B, HYDROGEN BOOSTER COMPRESSOR 21-C15, MAKE-UP HYDROGEN BOOSTER COMPRESSORS 21-C17 AND 21-C18, AND MISC AIR COOLERS, TOWERS, TANKS, EXCHANGERS , DRUMS, AND PUMPS - AREA 2: ADDITION OF REACTOR AND ASSOCIATED EQUIPMENT, INCLUDING RECYCLE COMPRESSOR AND HYDROGEN MAKE UP COMPRESSOR; NEW PUMP; MODIFY RERUN COLUMN (21-V14); PIPING MODIFICATIONS; TRANSFER HEATER 26-H17 FROM PERMIT S-33-52, INSTALL LOW NOX BURNERS ON 26-H17, AND RENAME HEATER 26-H17 TO 21-H21 FOR A TOTAL OF 10 HEATERS

S-33-63-13: MODIFICATION OF SOUR WATER AND OILY WASTEWATER OPERATION INCLUDING HYDROCRACKER AND PHENOLIC SOUR WATER STRIPPING, PHOSAM UNIT, OIL WASTEWATER CLASSIFIER (83D-13), AND MISCELLANEOUS TANKS AND ASSOCIATED PIPING - AREA 2: MODIFY PROCESS TO OPERATE UNIT 23 AS A SOUR WATER STRIPPER DIRECTING ACID GAS FROM THE STRIPPER TO THE SULFUR PLANT (UNIT 17); MODIFY PIPING FOR SOUR WATER STRIPPER (23-V4) AND HYDROCRACKER WATER STRIPPER (23-V5) AND THEIR ANCILLARY EQUIPMENT (PUMPS, EXCHANGERS AND TANK); UPGRADE ACID GAS KO DRUM (23-D5).

S-33-112-5: MODIFICATION OF 4,032,000 GALLON FLOATING ROOF PETROLEUM STORAGE TANK #96M01 WITH METALLIC SHOE PRIMARY SEAL AND WIPER SECONDARY SEAL: INSULATE TANK AND INSTALL STEAM COILS, MIXER, AND NOZZLES.

S-33-124-10: MODIFICATION OF GAS PLANT #2 INCLUDING AMINE REGENERATION SYSTEM, VOC COALESCER, DRYER SYSTEM, DE-ETHANIZER, DE-PROPANIZER, PIPING TO SRU #1 (PTO #S-33-16) AND MISC. PUMPS, PIPING, DRUMS, EXCHANGERS, AIR COOLERS, AND VESSELS: INSTALL LPG RECOVERY UNIT WITH COMPRESSORS, KNOCK OUT DRUMS, AND PROPANE REFRIGERATION UNIT

S-33-138-7: MODIFICATION OF 462,000 GALLON FIXED ROOF STORAGE TANK #70-T11007: INSTALL HEATING COILS, MIXER, AND ODOR CONTROL

S-33-139-5: MODIFICATION OF 462,000 GALLON FIXED ROOF STORAGE TANK #70-T11008: INSTALL HEATING COILS, MIXER, AND ODOR CONTROL

S-33-349-18: MODIFICATION OF CD HYDRO UNIT #27 INCLUDING 50 MMBTU/HR HEATER 27H1, ACCUMULATOR, FEED BOTTOM EXCHANGERS, CONDENSERS, REFORMATE COOLERS, REBOIL CIRCULATING PUMPS, REFLUX PUMPS, HYDROGEN FEED GUARD BED, HYDROGEN RECYCLE COMPRESSOR (27-C1), BENZENE SATURATION COLUMN (27-V1), & 2 HYDRO SULFUR GUARD DRUMS - AREA 2: ADDITION OF REFORMATE SPLITTER COLUMN (REACTOR 27-V2) AND ASSOCIATED VESSELS, EXCHANGERS, AND PUMPS; PIPING MODIFICATIONS; TRANSFER HEATER 11-H11 FROM PERMIT S-33-49, INSTALL LOW NOX BURNERS, AND RENAME HEATER 27-H2; MODIFY BENZENE SATURATION COLUMN (27-V1)

S-33-372-4: MODIFICATION OF LIQUEFIED PETROLEUM GAS AND NATURAL GASOLINE TRUCK LOADING/UNLOADING LANES WITH SEVEN PUMPS SERVED BY VAPOR RECOVERY SYSTEM: RELOCATION; ADDITION OF ONE-LANE TRUCK UNLOADING RACK FROM PERMIT S-33-70; AND CONSTRUCTION OF ONE ADDITIONAL LANE FOR A TOTAL OF FOUR LANES

S-33-440-0: ORGANIC LIQUID TRANSFER OPERATION WITH CRUDE OIL RAILCAR UNLOADING RACK AND ASSOCIATED OFFLOADING, TRANSFER AND BOOSTER PUMPS (6 TOTAL WITH A CAPACITY OF UP TO 350 HP FOR EACH PUMP), AND PIPING, INCLUDING STEAM FOR HEATING AND UTILITIES

S-33-441-0: 21 MMBTU/HR (500 HP) NATURAL GAS-FIRED BOILER WITH ULTRA LOW NOX BURNER

S-33-442-0: 21 MMBTU/HR (500 HP) NATURAL GAS-FIRED BOILER WITH ULTRA LOW NOX BURNER

S-33-443-0: 21 MMBTU/HR (500 HP) NATURAL GAS-FIRED BOILER WITH ULTRA LOW NOX BURNER

S-33-444-0: UP TO 25,000 BBL FIXED ROOF STORAGE TANK (#71-T10M25) CONNECTED TO VAPOR CONTROL SYSTEM

S-33-445-0: UP TO 25,000 BBL FIXED ROOF STORAGE TANK (#71-T10M26) CONNECTED TO VAPOR CONTROL SYSTEM

S-33-446-0: UP TO 250,000 BBL INTERNAL (DOMED) FLOATING ROOF ORGANIC LIQUID STORAGE TANK (#71-T150M01) WITH STEAM COILS AND ANCILLARY EQUIPMENT, INCLUDING PUMPS AND PIPING

S-33-447-0: UP TO 250,000 BBL INTERNAL (DOMED) FLOATING ROOF ORGANIC LIQUID STORAGE TANK (#71-T150M02) WITH STEAM COILS AND ANCILLARY EQUIPMENT, INCLUDING PUMPS AND PIPING

S-3303-1-6: MODIFICATION OF TRUCK LOADING OPERATION INCLUDING 36 BOTTOM LOADING ARMS, 6 TOP LOADING ARMS AND VAPOR RECOVERY ARMS SERVED BY VAPOR RECOVERY SYSTEM LISTED ON PERMIT S-33-41: ADDITION OF FOUR BOTTOM LOADING ARMS AND TWO TOP LOADING ARMS; NEW JET ADDITIVE TANK AND PUMP(S); ADDITIVE TOTES AND PUMPS; PIPING MODIFICATIONS

Post-Project Equipment Descriptions:

S-33-8-26: CRUDE UNIT #10 INCLUDING 209 MMBTU/HR GAS FIRED HEATER 10-H1 WITH WATER SPRAY NOZZLES FOR FLUE GAS COOLING AND SELECTIVE CATALYTIC REDUCTION (SCR), 65 MMBTU/HR GAS FIRED HEATER 10-H2, CRUDE TOWER 10-V1, DIESEL/AGO STRIPPER 10-V2A/B, CRUDE OFF GAS COMPRESSOR 10-C2, JET TREATER, CRUDE PRE-FLASH TOWER, DESALTER AND MISC. HEAT EXCHANGERS, PUMPS, PIPING, DRUMS, FIN FANS, AND VESSELS - AREA 1

S-33-9-18: VACUUM UNIT #11 INCLUDING NATURAL GAS/REFINERY GAS FIRED VACUUM CHARGE HEATERS 11H1 AND 11H2 (DE-RATED AT 130 MMBTU/HR TOTAL), VACUUM TOWER, FOUR STAGE VACUUM SYSTEM WITH GAS AMINE CONTACTOR AND MISC. PUMPS, PIPING, EXCHANGERS, FIN FANS, DRUMS, AND VESSELS - AREA 1

S-33-10-8: GAS PLANT #10 INCLUDING (UNIT 12) DEBUTANIZER 12-V1, NAPHTHA SPLITTER 12-V4, DEPROPANIZER 15-V1, AND MISC. PUMPS, PIPING, EXCHANGERS, FIN FANS, DRUMS, AND VESSELS - AREA 1

S-33-11-13: HYDROTREATER UNIT #8 INCLUDING 12.8 MMBTU/HR GAS-FIRED CHARGE HEATER (8-H1) WITH JOHN ZINK COOLSTAR LOW NOX BURNER, REACTOR (8-R1), SEPARATOR (8-V2), 12.8 MMBTU/HR GAS-FIRED REBOILER HEATER (8-H2) WITH JOHN ZINK COOLSTAR LOW NOX BURNER, STRIPPER (8-V4), STRIPPER RECEIVER (8-V8), MAKE-UP GAS/RECYCLE COMPRESORS (8-C1A/B), AND MISC PUMPS, PIPING, EXCHANGERS, FIN FANS, DRUMS, AND VESSELS - AREA 1

S-33-12-12: CATALYTIC REFORMER #9 INCLUDING 4 REACTORS 9-R1, R2, R3 AND R4, 5 REFINERY FUEL GAS-FIRED HEATERS 38.5 MMBTU/HR 9-H1 AND 30.8 MMBTU/HR 9-H2 EACH WITH A CALLIDUS LOW NOX BURNER, 18.2 MMBTU/HR 9-H3 AND 9.2 MMBTU/HR 9-H4 AND 10.1 MMBTU/HR REBOILER HEATER 9-H5, EACH WITH A JOHN ZINK COOLSTAR LOW NOX BURNER, SEPARATOR 9-V3, DEPROPANIZER 9-V4, RECYCLE COMPRESSOR 9-C1, AND MISC PUMPS, PIPING, EXCHANGERS, FIN FANS, DRUMS, & VESSELS - AREA 1

S-33-13-25: MILD HYDROCRACKER #14 INCLUDING 50 MMBTU/HR GAS FIRED CHARGE HEATER 14-H1, 40 MMBTU/HR GAS FIRED FEED HEATER 14-H2, REACTOR 14-R1, 4 SEPARATORS 14-D4, 14-D5, 14-D7, 14-D14, FRACTIONATOR 14-V1, DIESEL STRIPPER 14-V4, MAKE-UP/RECYCLE GAS COMPRESSOR 14-C1A/B, HYDROGEN MAKE-UP COMPRESSOR 14-C2, FRACTIONATOR OVERHEAD COMPRESSORS (14-C3A/B, 14-C4A/B) AND MISC PUMPS, HEAT EXCHANGERS, PIPING, FIN FANS, DRUMS, AND VESSELS - AREA 1

S-33-49-8: 41 MMBTU/HR CRUDE UNIT #11 INCLUDING HEATER 11-H12 AND TOPPING ASSEMBLY - AREA 2

S-33-52-18: 65.6 MMBTU/HR CATALYTIC REFORMING UNIT #26 INCLUDING 5 HEATERS, HYDROSULFURIZATION ASSEMBLY; CATALYTIC ASSEMBLY, DEPENTANIZER SERVICE TOWER (26-V13), REBOILER STEAM CONDENSATE BALANCE DRUM (26-D31), 2 FEED/BOTTOMS EXCHANGERS (26-E45 A/B), 2 OVERHEAD CONDENSERS (26-E46 A/B), DISTILLATE COOLER (26-E47), 2 BOTTOMS PUMPS (26-P37 A/B), AND 2 REFLUX PUMPS (26 P38 A/B), DESULFURIZER REFORMER RECYCLE COMPRESSORS (26-C11, 26-C12, 26-C13), STRIPPER GAS COMPRESSOR (26-C14), DESULFURIZER BOOSTER COMPRESSOR (26-C15), AND MISC. DRUMS, FIN FANS, EXCHANGERS, AND PIPING

S-33-56-30: HYDROCRACKER UNIT #21 INCLUDING 10 HEATERS, CATALYTIC ASSEMBLY, HYDROGEN COMPRESSOR/RECYCLE COMPRESSORS 21-C11A/B AND 21-C12A/B, HYDROGEN BOOSTER COMPRESSOR 21-C15, MAKE-UP HYDROGEN BOOSTER COMPRESSORS 21-C17 AND 21-C18, AND MISC AIR COOLERS, TOWERS, TANKS, EXCHANGERS , DRUMS, AND PUMPS - AREA 2

S-33-63-13: SOUR WATER AND OILY WASTEWATER OPERATION INCLUDING HYDROCRACKER AND PHENOLIC SOUR WATER STRIPPING, OIL WASTEWATER CLASSIFIER (83D-13), AND MISCELLANEOUS TANKS AND ASSOCIATED PIPING - AREA 2

S-33-112-5: 4,032,000 GALLON FLOATING ROOF PETROLEUM STORAGE TANK #96M01 WITH METALLIC SHOE PRIMARY SEAL AND WIPER SECONDARY SEAL

S-33-124-10: GAS PLANT #2 INCLUDING AMINE REGENERATION SYSTEM, VOC COALESCER, DRYER SYSTEM, DE-ETHANIZER, DE-PROPANIZER, PIPING TO SRU #1 (PTO #S-33-16), LPG RECOVERY UNIT WITH COMPRESSORS, KNOCK OUT DRUMS, AND PROPANE REFRIGERATION UNIT, AND MISC. PUMPS, PIPING, DRUMS, EXCHANGERS, AIR COOLERS, AND VESSELS WITH ODOR CONTROL

S-33-138-7: 462,000 GALLON FIXED ROOF STORAGE TANK #70-T11007 WITH ODOR CONTROL

S-33-139-5: 462,000 GALLON FIXED ROOF STORAGE TANK #70-T11008 WITH ODOR CONTROL

S-33-349-18: CD HYDRO UNIT #27 INCLUDING 50 MMBTU/HR HEATER 27H1 AND 35 MMBTU/HR HEATER 27H2, ACCUMULATOR, FEED BOTTOM EXCHANGERS, CONDENSERS, REFORMATE COOLERS, REBOIL CIRCULATING PUMPS, REFLUX PUMPS, HYDROGEN FEED GUARD BED, HYDROGEN RECYCLE COMPRESSOR (27-C1), BENZENE SATURATION COLUMN (27-V1), REFORMATE SPLITTER COLUMN (27-V2) & 2 HYDRO SULFUR GUARD DRUMS - AREA 2

S-33-372-4: LIQUEFIED PETROLEUM GAS AND NATURAL GASOLINE TRUCK LOADING/UNLOADING LANES WITH SEVEN PUMPS SERVED BY VAPOR RECOVERY SYSTEM

S-33-440-0: ORGANIC LIQUID TRANSFER OPERATION WITH CRUDE OIL RAILCAR UNLOADING RACK AND ASSOCIATED OFFLOADING, TRANSFER AND BOOSTER PUMPS (6 TOTAL WITH A CAPACITY OF UP TO 350 HP FOR EACH PUMP), AND PIPING, INCLUDING STEAM FOR HEATING AND UTILITIES

S-33-441-0: 21 MMBTU/HR (500 HP) NATURAL GAS-FIRED BOILER WITH ULTRA LOW NOX BURNER

S-33-442-0: 21 MMBTU/HR (500 HP) NATURAL GAS-FIRED BOILER WITH ULTRA LOW NOX BURNER

S-33-443-0: 21 MMBTU/HR (500 HP) NATURAL GAS-FIRED BOILER WITH ULTRA LOW NOX BURNER

S-33-444-0: UP TO 25,000 BBL FIXED ROOF STORAGE TANK (#71-T10M25) CONNECTED TO VAPOR CONTROL SYSTEM

S-33-445-0: UP TO 25,000 BBL FIXED ROOF STORAGE TANK (#71-T10M26) CONNECTED TO VAPOR CONTROL SYSTEM

S-33-446-0: UP TO 250,000 BBL INTERNAL (DOMED) FLOATING ROOF ORGANIC LIQUID STORAGE TANK (#71-T150M01) WITH STEAM COILS AND ANCILLARY EQUIPMENT, INCLUDING PUMPS AND PIPING

S-33-447-0: UP TO 250,000 BBL INTERNAL (DOMED) FLOATING ROOF ORGANIC LIQUID STORAGE TANK (#71-T150M02) WITH STEAM COILS AND ANCILLARY EQUIPMENT, INCLUDING PUMPS AND PIPING

S-3303-1-6: TRUCK LOADING OPERATION INCLUDING 40 BOTTOM LOADING ARMS, 8 TOP LOADING ARMS AND VAPOR RECOVERY ARMS SERVED BY VAPOR RECOVERY SYSTEM LISTED ON PERMIT S-33-41

VI. Emission Control Technology Evaluation

The emissions from the proposed Crude Oil Flexibility Project will consist of combustion emissions from the gas-fired heaters and boilers; VOC emissions from tank operation; VOC loading losses from the railcar loading rack; and fugitive VOC emissions. Emissions from refinery gas-fired heaters and PUC-quality natural gas-fired boilers include NOx, CO, VOC, PM_{10}, $PM_{2.5}$, and SOx. The heaters and boilers will be equipped with low NOx burners to control NOx emissions, in accordance with the requirements of Rules 4306 & 4320.

Heaters and Boilers – Low NOx Burners
NOx formation is either due to thermal fixation of atmospheric nitrogen in the combustion air (thermal NOx) or due to conversion of chemically bound nitrogen in the fuel (fuel NOx). Most NOx emissions are thermal NOx. Formation of thermal NOx is affected by four furnace zone factors: (1) nitrogen concentration, (2) oxygen concentration, (3) peak temperature, and (4) time of exposure at peak temperature.

Low NOx burners are pre-combustion controls that prevent the formation of NOx during combustion by carefully controlling the combustion characteristic. Generally, this is achieved using low excess air and staged combustion. Low excess air decreases the total amount of nitrogen present at the burner, thereby decreasing thermal NOx formation. Staged combustion burns fuel in two or more steps. The primary combustion zone is fuel-rich and the secondary zones are fuel-lean. Using these tactics, low NOx burners inhibit thermal NOx formation while minimizing CO emissions by controlling the flame temperature and the fuel/air mixture within the flame burner zone.

Storage Tanks
VOC is the only pollutant of concern with organic liquid storage tanks. VOC emissions occur when a tank is filled and headspace vapors are displaced. The two custody transfer tanks will be fixed roof connected to vapor recovery and the two crude storage tanks will be internal (domed) floating roof tanks. According to the SJVAPCD BACT Guideline (7.3.3), a floating roof organic liquid storage tank must achieve at least 95% VOC control efficiency through the use of a primary metal shoe seal with secondary wiper seal, or equivalent. The proposed crude storage tanks will meet this level of control.

Crude Oil Rail Car Crude Unloading Facility
VOC emissions are expected from the rail car unloading facility. Emissions from the unloading rack result from fugitive component leaks and spillage upon disconnect. Emissions created when material from a railcar displaces the vapors in a destination tank are associated with the destination tank, not with the proposed unloading rack. These emissions will be minimized through the Leak Detection and Repair (LDAR) program, executed in compliance with Rule 4455. Dry-break couplers will also be used to minimize spillage emissions which will be limited to 3.2 mL/disconnect (proposed connectors have a residual average loss of 3.2 mL/disconnect per BACT).

Sales Terminal Truck Loading Rack
VOC emissions are expected from the organic liquid loading operations. Loading losses occur as organic vapors in "empty" cargo tanks are displaced to the atmosphere by the liquid being loaded into the tanks. These vapors are a composite of (1) vapors formed in the empty tank by evaporation of residual product from previous loads, (2) vapors transferred to the tank in vapor balance systems as product is being unloaded, and (3) vapors generated in the tank as the new product is being loaded. VOC emissions associated with the loading operation are controlled through connection to the refinery's existing vapor recovery system.

VII. General Calculations

A. Assumptions:

New permit units:

New Railcar Unloading Rack, S-33-440-0:

- This facility may operate 24 hours per day, 365 days per year
- VOC is the only pollutant emitted from this operation
- All hydrocarbons in the oil stream are VOCs (VOC content = 100%)
- All liquids transferred will be conservatively assumed to be light crude oil, however heavier crude may be processed (per Applicant)
- Fugitive component emissions are calculated using California Implementation Guidelines for Estimating Mass Emissions of fugitive Hydrocarbon Leaks at Petroleum Facilities, CAPCOA/CARB, February 1999 "correlation equation" emissions factors.
- Disconnects are limited to 3.2 mL/disconnect (per Applicant)
- Maximum of 312 disconnects per day and 75,920 disconnects per year (per Applicant)
- For purposes of emission calculations for disconnects a density for heavy crude of 0.915 g/ml will be conservatively assumed, however, lighter crude may be processed. (per Applicant)
- Pursuant to Section 4.7.1 of Rule 2201 emissions from dedicated trains will be assessed and emissions mitigated as these operations are cargo carriers which are dedicated to the facility.
- Dedicated locomotive activity per unit train or unit train equivalent: 398 minutes per unit train (6.63 hours per unit train) at a total locomotive engine load of 1,031 brake horsepower-hours per unit train (equivalent to a load factor of 3.53% for one locomotive)

- Dedicated locomotive source for HC, NOx, and PM10 emission factors in grams/gallon: Emission Factors for Locomotives (Document No. EPA-420-F-09-025), U.S. Environmental Protection Agency, April 2009, Tables 5 to 7 (expected fleet average emission factors by calendar year for large line-haul locomotives). TOC is assumed to equal HC.
- Dedicated locomotive VOC is calculated using the California Air Resources Board's ROG weight fraction of 0.84 X TOC (profile no. 818) for compression-ignition diesel-fired internal combustion engines, available at arb.ca.gov/ei/speciate/interoptvv10001.php (accessed February 11, 2013).
- Dedicated locomotive CO is calculated using an emission factor of 1.28 grams/bhp-hr from Emission Factors for Locomotives, Table 1 (Line-Haul Emission Factors, g/bhp-hr).
- Dedicated locomotive SOx (as SO2) is calculated using an assumed sulfur content of 15 parts per million diesel as follows: (15 lbs S/million lbs diesel) X (7.05 lb/gal diesel) X (1 gal diesel/20.8 bhp-hr) X (64 lb-mol SO2/32 lb-mol S) X (453.59 g/lb) = 0.005 g SOx/bhp-hr. This assumes that California lower sulfur on-highway diesel fuel is used by locomotives. Source for locomotive brake specific fuel consumption factor of 20.8 bhp-hr/gallon: Emission Factors for Locomotives, Table 3 (Conversion Factors, bhp-hr/gal), large line-haul and passenger locomotives.

  Per Title 13 California Code of Regulations (CCR) Section 2299(a)(1), effective January 1, 2007, California diesel fuel sold or supplied for use in intrastate locomotives is required to meet the 15 ppm sulfur content limits established in Title 13 CCR Section 2281.

  Per 40 Code of Federal Regulations Part 80 (Regulation of Fuels and Fuel Additives) Section 80.510(c), effective January 1, 2012, all locomotive diesel fuel is required to meet a 15 ppm sulfur content limit.

New Boilers, S-33-441-0, '-442-0 & '-443-0:

- NOx, CO, VOC, SOx or PM10 pollutants are emitted from these operations.
- No increase in emissions will be assessed due to the addition of start-up and shutdown duration limits as allowed in Rule 4320 section 5.6.2
- Natural Gas Heating Value: 1,000 Btu/scf (District Practice)
- F-Factor for Natural Gas: 8,578 dscf/MMBtu corrected to 60°F (40 CFR 60, Appendix A)
- Maximum operating schedule is 24 hours per day and 365 days per year

New Fixed Roof Tanks Equipped with Vapor Recovery, S-33-444-0 & '-445-0:

- Facility will operate 24 hours per day, 7 days per week, and 52 weeks per year.
- The fugitive emissions for all tanks are calculated using California Implementation Guidelines for Estimating Mass Emissions of fugitive Hydrocarbon Leaks at Petroleum Facilities, CAPCOA/CARB, February 1999 "correlation equation" emissions factors.
- Fugitive VOCs emitted from components in gas and light liquid service are calculated.
- The percentage of VOCs of the total hydrocarbons is 100%.

New Internal (Domed) Floating Roof Tanks, S-33-446-0 & '-447-0:

- This facility may operate 24 hours per day, 365 days per year
- VOC is the only pollutant emitted from this operation
- Tank factors and characteristics are provided by applicant (see Tanks 4.09d summary in **Appendix G** for tank characteristics detail)
- All hydrocarbons in the oil stream are VOCs (VOC content = 100%)
- All liquids stored and transferred will be conservatively assumed to be light crude oil, however heavier crude may be processed (per Applicant)
- Maximum combined daily crude oil throughput is limited to 225,000 bbl/day.
- Reid Vapor Pressure: 9 psia
- Maximum combined annual crude oil throughput is limited to 54,750,000 bbl/yr. or 109.5 turnovers/tank/year.

Existing permit units:

Existing permit units that only have fugitive component changes S-33-8, '-9, '-10, '-11, '-12, '-13, '-112, '-124, '-138, '-139 & '-372

- Facility will operate 24 hours per day, 7 days per week, and 52 weeks per year.
- The fugitive emissions for tanks connected to vapor recovery are calculated using California Implementation Guidelines for Estimating Mass Emissions of fugitive Hydrocarbon Leaks at Petroleum Facilities, CAPCOA/CARB, February 1999 "correlation equation" emissions factors.
- Only fugitive VOCs emitted from components in gas and light liquid service are calculated.

Existing permit units that have fugitive component changes and burner retrofits '-52, '-56 & '-349

- Facility will operate 24 hours per day, 7 days per week, and 52 weeks per year.
- The fugitive emissions for tanks connected to vapor recovery are calculated using California Implementation Guidelines for Estimating Mass Emissions of fugitive Hydrocarbon Leaks at Petroleum Facilities, CAPCOA/CARB, February 1999 "correlation equation" emissions factors.
- Only fugitive VOCs emitted from components in gas service and light liquid service are calculated.
- NOx, CO, VOC, SOx or PM10 pollutants are emitted from the burner operations.
- No increase in emissions will be assessed due to the addition of start-up and shutdown duration limits as allowed in Rule 4320 section 5.6.2
- Natural Gas Heating Value: 1,000 Btu/scf (District Practice)
- F-Factor for Natural Gas: 8,578 dscf/MMBtu corrected to 60°F (40 CFR 60, Appendix A)
- Maximum operating schedule is 24 hours per day and 365 days per year

B. Emission Factors

Below are California Implementation Guidelines for Estimating Mass Emissions of fugitive Hydrocarbon Leaks at Petroleum Facilities, CAPCOA/CARB, February 1999 "correlation equation" emissions factors (Table IV-3a) which will be used to calculate emissions for all VOC fugitive emission components.

Table 1

Equipment Type	Service	Default Zero Factor (kg/hr)	Pegged Factor (kg/hr)	Correlation Equation (kg/hr)
Valves	All	7.8E-06	6.4E-02	2.27E-06(SV)^0.747
Pump Seals	All	1.9E-05	8.9E-02	5.07E-05(SV)^0.622
Others	All	4.0E-06	8.2E-02	8.69E-06(SV)^0.642
Connectors	All	7.5E-06	3.0E-02	1.53E-06(SV)^0.736
Flanges	All	3.1E-07	9.5E-02	4.53E-06(SV)^0.706
Open-ended lines	All	2.0E-06	3.3E-02	1.90E-06(SV)^0.724

Emission factors for retrofitted heaters for permit units S-33-52, '-56 & '-349.

S-33-56-30 (Unit 21: 21-H21) and S-33-349 (Unit 27: 27-H2)

Pollutant	Concentration/Emission Factor	Source
NOx	24 ppmv @ 3% O2	Projected low NOx burner performance
SOx	5 grains S/100 scf	Rule 4320, Section 5.4.1
PM10	7.6 lb/MMscf	AP-42 Chapter 1.4 (07/98)
CO	200 ppmv @ 3% O2	Projected low CO burner performance
VOC	5.5 lb/MMscf	AP-42 Chapter 1.4 (07/98)

S-33-52-17 (Unit 26: 26-H13/15)

Pollutant	Concentration/Emission Factor	Source
NOx	30 ppmv @ 3% O2	Projected low NOx burner performance
SOx	5 grains S/100 scf	Rule 4320, Section 5.4.1
PM10	7.6 lb/MMscf	AP-42 Chapter 1.4 (07/98)
CO	200 ppmv @ 3% O2	Projected low CO burner performance
VOC	5.5 lb/MMscf	AP-42 Chapter 1.4 (07/98)

Emission factors for dedicated locomotive cargo carriers

See "Assumptions", above.

Emission factors for three new boilers S-33-441, '-442 & '-443.

S-33-441, '-442 & '-443

Pollutant	Concentration/ Emission Factor	Source
NOx	6 ppmv @ 3% O2	BACT
SOx	5 grains S/100 scf[2]	BACT (PUC regulated natural gas)
PM10	7.6 lb/MMscf	AP-42 Chapter 1.4 (07/98)
CO	25 ppmv @ 3% O2	BACT
VOC	5.5 lb/MMscf	AP-42 Chapter 1.4 (07/98)

C. Calculations

Sample calculations have been provided in the referenced Attachments.

1. Pre-Project Potential to Emit (PE1)

New ATCs S-33-440-0 thru '-447-0:

The new crude storage internal (domed) floating roof tanks, custody transfer fixed roof tanks, boilers, and crude oil rail car unloading facility are new emissions units; as such, PE1 = 0 for all criteria pollutants associated with these units.

Modified PTOs as ATCs S-33-8-26, S-3303-1-6 and 17 others:

The potential to emit for the operation is calculated as follows, and summarized in the table below:

The pre-project potential to emit is based on the following existing permitted operations, and summarized in the table below (See **Attachment F** for details on the individual emission unit PE1).

- Heaters: S-33-56 (21-H21), S-33-52 (26-H13/15), and S-33-349 (27-H2)
- Diesel/Jet Fuel Loading: S-3303-1-6
- Fugitive Components: S-33-11 (Unit 8), S-33-12 (Unit 9), S-33-8 (Unit 10), S-33-9 (Unit 11), S-33-10 (Unit 12), S-33-13 (Unit 14), S-33-56 (Unit 21), S-33-124 (Unit 25), S-33-52 (Unit 26), and S-33-349 (Unit 27)
- Truck LPG transfer operations consolidating S-33-70 with '-372 and adding one additional lane for a total of four lanes

Note that the permits to operate for five of the units S-33-11, '-12, '-124, '-52, '-349 (Units 8, 9, 25, 26, and 27) include conditions that define the annual and daily potential

[2] The actual sulfur content of PUC regulated natural gas its typically less than 1.0 gr S/100 scf. However, 5 gr S/100 scf is the maximum sulfur content allowed for PUC-quality natural gas per California Public Utilities Commission *General Order 58-A* (December 16, 1992), Title 7 (Purity of Gas), paragraph b (Total Sulfur), available at www.cpuc.ca.gov/puc/documents/go.htm.

to emit from the existing fugitive hydrocarbon component leaks at these units. For all other units without such conditions, PE1 for the fugitive components is assumed to be the historical annual emissions (HAE) from 2008 multiplied by two to accommodate variation in actual fugitive emissions from year to year. Calculations are presented in Attachment F and summarized in the table below.

Calculations only include modified emission units within a permit unit. A permit unit can be comprised of many emissions units.

PE1 (lb/day)					
Permit Unit	NO_X	SO_X	PM_{10}	CO	VOC
S-33-8-25 (Unit 10)	0	0	0	0	6.2
S-33-9-17 (Unit11)	0	0	0	0	1.4
S-33-10-7 (Unit 12)	0	0	0	0	5.2
S-33-11-12 (Unit 8)	0	0	0	0	18.8
S-33-12-11 (Unit 9)	0	0	0	0	26.3
S-33-13-24 (Unit 14)	0	0	0	0	11.5
S-33-49-6	0	0	0	0	0
S-33-52-17 (Unit 26)	13.1	4.3	2.7	106.5	763.3
S-33-56-27 (Unit 21)	26.3	8.6	5.4	213.1	140.2
S-33-63-12	0	0	0	0	0
S-33-112-4	0	0	0	0	0
S-33-124-9	0	0	0	0	377.0
S-33-138-6	0	0	0	0	0
S-33-139-4	0	0	0	0	0
S-33-349-16	30.6	10.0	6.3	139.8	97.4
S-33-372-3	0	0	0	0	4.5
S-33-440-0	0	0	0	0	0
S-33-441-0	0	0	0	0	0
S-33-442-0	0	0	0	0	0
S-33-443-0	0	0	0	0	0
S-33-444-0	0	0	0	0	0
S-33-445-0	0	0	0	0	0
S-33-446-0	0	0	0	0	0
S-33-447-0	0	0	0	0	0
S-3303-1-5	0	0	0	0	52.6

PE1 (lb/year)					
Permit Unit	NO_X	SO_X	PM_{10}	CO	VOC
S-33-8-25	0	0	0	0	2276
S-33-9-17	0	0	0	0	501
S-33-10-7	0	0	0	0	1900
S-33-11-12	0	0	0	0	6862
S-33-12-11	0	0	0	0	9600
S-33-13-24	0	0	0	0	4208
S-33-49-6	0	0	0	0	0
S-33-52-17 (fugitive)	- -	- -	- -	- -	277911
S-33-52-17 (combustion)	4791	1564	979	38890	709
S-33-56-27 (fugitive)	- -	- -	- -	- -	49750
S-33-56-27 (combustion)	9582	3129	1958	77779	1417
S-33-63-12	0	0	0	0	0
S-33-112-4	0	0	0	0	0
S-33-124-9	0	0	0	0	137605
S-33-138-6	0	0	0	0	0
S-33-139-4	0	0	0	0	0
S-33-349-16 (fugitive)	- -	- -	- -	- -	33,909
S-33-349-16 (combustion)	11179	3650	2284	51043	1653
S-33-372-3	0	0	0	0	1643
S-33-440-0	0	0	0	0	0
S-33-441-0	0	0	0	0	0
S-33-442-0	0	0	0	0	0
S-33-443-0	0	0	0	0	0
S-33-444-0	0	0	0	0	0
S-33-445-0	0	0	0	0	0
S-33-446-0	0	0	0	0	0
S-33-447-0	0	0	0	0	0
S-3303-1-5	0	0	0	0	19199

2. Post Project Potential to Emit (PE2)

Calculations only include modified emission units within a permit unit, no potential to emit is included for non-modified emission units. A permit unit can be comprised of many emissions units. See **Attachment G** for calculation details.

PE2 (lb/day)					
Permit Unit	NO_X	SO_X	PM_{10}	CO	VOC
S-33-8-26	0	0	0	0	8.3
S-33-9-18	0	0	0	0	1.4
S-33-10-8	0	0	0	0	5.5
S-33-11-13	0	0	0	0	18.9
S-33-12-12	0	0	0	0	26.3
S-33-13-25	0	0	0	0	13.8
S-33-49-8	0	0	0	0	0
S-33-52-18	13.1	4.3	2.7	53.3	763.5
S-33-56-30	21.0	8.6	5.4	106.5	140.5
S-33-63-13	0	0	0	0	0
S-33-112-5	0	0	0	0	0
S-33-124-10	0	0	0	0	379.2
S-33-138-7	0	0	0	0	0
S-33-139-5	0	0	0	0	0
S-33-349-18	24.5	10.0	6.3	124.3	99.2
S-33-372-4	0	0	0	0	4.5
S-33-440-0	0	0	0	0	10.4
S-33-440-0 (cargo carrier)	27.4	0	0.7	5.7	1.0
S-33-441-0	3.7	7.1	3.8	9.3	2.7
S-33-442-0	3.7	7.1	3.8	9.3	2.7
S-33-443-0	3.7	7.1	3.8	9.3	2.7
S-33-444-0	0	0	0	0	1.3
S-33-445-0	0	0	0	0	1.3
S-33-446-0	0	0	0	0	29.8
S-33-447-0	0	0	0	0	29.8
S-3303-1-6	0	0	0	0	53.1

PE2 (lb/year)					
Permit Unit	NO_X	SO_X	PM_{10}	CO	VOC
S-33-8-26	0	0	0	0	3018
S-33-9-18	0	0	0	0	518
S-33-10-8	0	0	0	0	1998
S-33-11-13	0	0	0	0	6899
S-33-12-12	0	0	0	0	9609
S-33-13-25	0	0	0	0	5030
S-33-49-8	0	0	0	0	0
S-33-52-18 (fugitive)	--	--	--	--	278000
S-33-52-18 (combustion)	4791	1564	979	19455	709
S-33-56-30 (fugitive)	--	--	--	--	49857
S-33-56-30 (combustion)	7666	3129	1958	38890	1417
S-33-63-13	0	0	0	0	0
S-33-112-5	0	0	0	0	0
S-33-124-10	0	0	0	0	138418
S-33-138-7	0	0	0	0	0
S-33-139-5	0	0	0	0	0
S-33-349-18 (fugitive)	--	--	--	--	34555
S-33-349-18 (combustion)	8943	3650	2284	45371	1653
S-33-372-4	0	0	0	0	1643
S-33-440-0	0	0	0	0	3064
S-33-440-0 (cargo carrier)	10000	0	260	2060	380
S-33-441-0	1342	2576	1371	3402	992
S-33-442-0	1342	2576	1371	3402	992
S-33-443-0	1342	2576	1371	3402	992
S-33-444-0	0	0	0	0	461
S-33-445-0	0	0	0	0	461
S-33-446-0	0	0	0	0	7493
S-33-447-0	0	0	0	0	7493
S-3303-1-6	0	0	0	0	19409

3. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to District Rule 2201, the SSPE1 is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of Emission Reduction Credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions (AER) that have occurred at the source, and which have not been used on-site.

Facility emissions are already above the Offset and Major Source Thresholds for all criteria emissions; therefore, SSPE1 calculations are not necessary.

4. Post Project Stationary Source Potential to Emit (SSPE2)

Pursuant to District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs at the Stationary Source and the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site.

Since facility emissions are already above the Offset and Major Source Thresholds for all criteria emissions, SSPE2 calculations are not necessary.

5. Major Source Determination

Rule 2201 Major Source Determination:

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

- Any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)

Rule 2201 Major Source Determination (lb/year)						
	NO_X	SO_X	PM_{10}	$PM_{2.5}$	CO	VOC
SSPE1	--	--	--	--	--	--
SSPE2	--	--	--	--	--	--
Major Source Threshold	20,000	140,000	140,000	200,000	200,000	20,000
Major Source?	Stipulated	Stipulated	Stipulated	Stipulated	Stipulated	Stipulated

Note: PM2.5 assumed to be equal to PM10

The applicant stipulates that the source is an existing Major Source for all criteria pollutants (including $PM_{2.5}$) and will remain a Major Source for all criteria pollutants.

Rule 2410 Major Source Determination:

A source is a PSD major source if it has the potential to emit above the thresholds listed below for at least one pollutant.

In determining if a stationary source is a PSD major source, the following sources of emissions shall be excluded in determining if a source is a PSD major source:

- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 52.21 (b)(1)(iii), see below

Source Type Categories as specified in 40 CFR 52.21 (b)(1)(iii)

a. Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input,
b. coal cleaning plants (with thermal dryers),
c. kraft pulp mills,
d. portland cement plants,
e. primary zinc smelters,
f. iron and steel mill plants,
g. primary aluminum ore reduction plants (with thermal dryers),
h. primary copper smelters,
i. municipal incinerators capable of charging more than 250 tons of refuse per day,
j. hydrofluoric, sulfuric, and nitric acid plants,
k. petroleum refineries,
l. lime plants,
m. phosphate rock processing plants,
n. coke oven batteries,
o. sulfur recovery plants,
p. carbon black plants (furnace process),
q. primary lead smelters,
r. fuel conversion plants,
s. sintering plants,
t. secondary metal production plants,
u. chemical process plants (which does not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140),
v. fossil-fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input,
w. petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels,
x. taconite ore processing plants,
y. glass fiber processing plants, and
z. charcoal production plants;

The facility or the equipment evaluated under this project is listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). Therefore the PSD Major Source threshold is 100 tpy for any regulated NSR pollutant.

PSD Major Source Determination (tons/year)						
	NO2	VOC	SO2	CO	PM	PM10
Estimated Facility PE before Project Increase	--	--	--	--	--	--
PSD Major Source Thresholds	100	100	100	100	100	100
PSD Major Source ? (Y/N)	--	Y	--	--	--	--

The applicant has stipulated that the facility is an existing PSD major source for VOC. It is not necessary to determine if the facility is also a PSD major source for any other pollutants.

6. Baseline Emissions (BE)

The BE calculation (in lbs/year) is performed pollutant-by-pollutant for each unit within the project. The BE are used to calculate the offset quantity required for each new or modified emissions unit. Pursuant to Section 3.8 of District Rule 2201, BE = Pre-Project Potential to Emit for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

The following units are considered Clean Emissions Units per Section 3.8, therefore BE = PE1:

- Existing fugitive components, and
- Sales Terminal Truck Loading Rack

Please note that existing heaters 21-H21 and 27-H2 and 26-H13/15 are being retrofitted with low NOx burners solely for compliance with District Rule 4306. As such, they are exempt from offset requirement pursuant to the exemption set forth in Rule 2201, Section 4.6.8. For units exempt from offsets, determination of BE is not required.

All other emission units associated with this project are new (boilers, internal (domed) floating roof crude storage tanks, fixed roof custody transfer tanks, propane refrigeration skid, and rail car unloading facility); as such, BE = PE1 = 0 for all criteria pollutants.

BE (lb/year)					
Permit Unit	NO_X	SO_X	PM_{10}	CO	VOC
S-33-8-25	0	0	0	0	2276
S-33-9-17	0	0	0	0	501
S-33-10-7	0	0	0	0	1900
S-33-11-12	0	0	0	0	6862
S-33-12-11	0	0	0	0	9600
S-33-13-24	0	0	0	0	4208
S-33-49-6	0	0	0	0	0
S-33-52-17 (fugitive)	- -	- -	- -	- -	277911
S-33-52-17 (combustion)	n/a	n/a	n/a	n/a	n/a
S-33-56-27 (fugitive)	- -	- -	- -	- -	49750
S-33-56-28 (combustion)	n/a	n/a	n/a	n/a	n/a
S-33-63-12	0	0	0	0	0
S-33-112-4	0	0	0	0	0
S-33-124-9	0	0	0	0	137605
S-33-138-6	0	0	0	0	0
S-33-139-4	0	0	0	0	0
S-33-349-16 (fugitive)	- -	- -	- -	- -	33,909
S-33-349-16 (combustion)	n/a	n/a	n/a	n/a	n/a
S-33-372-3	0	0	0	0	1643
S-33-440-0	0	0	0	0	0
S-33-441-0	0	0	0	0	0
S-33-442-0	0	0	0	0	0
S-33-443-0	0	0	0	0	0
S-33-444-0	0	0	0	0	0
S-33-445-0	0	0	0	0	0
S-33-446-0	0	0	0	0	0
S-33-447-0	0	0	0	0	0
S-3303-1-5	0	0	0	0	19199

7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

Pursuant to the District's "Implementation of Rule 2201 (as amended on 12/18/08 and effective on 6/10/10) for SB288 Major Modifications and Federal Major Modifications policy", the applicant may stipulate that the project results in both a significant emission increase and significant net emission increase. In such a case, the project constitutes an SB 288 major modification and is subject to all applicable requirements.

Alon stipulates that this modification is a SB 288 modification for NOx, SOx, PM_{10} and VOC emissions. As such, this project constitutes an SB 288 Major Modification.

8. Federal Major Modification

District Rule 2201 states that a Federal Major Modification is the same as a "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

As the source is included in the 28 specific source categories specified in 40 CFR 51.165, the increases in fugitive emissions are included in the Federal Major Modification determination.

As perviously stipulated, the facility is a Major Source for all criterial pollutants, including $PM_{2.5}$ (200,000 lb/year).

The determination of Federal Major Modification is based on a two-step test. For the first step, only the emission *increases* are counted. Emission decreases may not cancel out the increases for this determination.

Step 1

The emissions increases for the project are shown in the table below, and include increases from all new emissions units: tanks, boilers, organic liquid loading and increases in fugitive emissions.

In this project, there are three existing process heaters being refrofitted with low NOx burners for rule compliance. In accordance with the District's draft policy for the *Implementation of Rule 2201 for SB 288 and Federal Major Modifications*, it is presumed that modifications to existing units solely for rule compliance, where there is no change in the capacity of the unit, will not result in a higher utilization rate and that there will be no increase in emissions for any air contaminant. Therefore, no calculations are required for the existing process heaters.

The project's combined total emission increases calculated on page 44 of this report are compared to the Federal Major Modification Thresholds in the following table:

Federal Major Modification Thresholds for Emission Increases			
Pollutant	Total Emissions Increases (lb/yr)	Thresholds (lb/yr)	Federal Major Modification?
NO_x	14,026	0	Yes
VOC	25,920	0	Yes
PM_{10}	4,373	30,000	No
$PM_{2.5}$	4,373	20,000	No
SO_x	7,728	80,000	No

Since there is an increase in NO_x and VOC emissions, this project constitutes a Federal Major Modification for these air contaminants.

As the Federal Major Modification Thresholds for SOx, PM_{10} and $PM_{2.5}$ have not been surpassed, the project does not constitute a Federal Major Modification for any of these air contaminants.

No further analysis is required.

9. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

- NO2 (as a primary pollutant)
- SO2 (as a primary pollutant)
- CO
- PM
- PM10

As the the facility is an existing PSD Major Source, the second step is to determine PSD applicability is to determine if the project results in a significant increase and if so, also a significant net emissions increase for any PSD pollutant. For this determination, please refer to calculations on page 54 of this report.

10. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen. Detailed QNEC calculations are included in Appendix H.

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions*:

a. Any new emissions unit with a potential to emit exceeding two pounds per day,
b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

a. New emissions units – PE > 2 lb/day

New Boilers, (S-33-441, '-442 & '-443):
The proposed installation of each of the three new steam boilers in Unit 81 triggers BACT based on a PE2 greater than 2 lb/day for NOx, SOx, PM10, PM2.5, CO, and VOC.

New Organic Liquid Storage Tanks (S-33-444-0 thru '-447-0):
Each of the proposed tank installations and modifications is subject to BACT for VOC because they are part of a project that is a Federal Major Modification for VOC.

New Fugitive Components:
All fugitive component increases are subject to BACT for VOC because they are part of a project that is a Federal Major Modification for VOC.

b. Relocation of emissions units – PE > 2 lb/day

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore BACT is not triggered.

c. Modification of emissions units – AIPE > 2 lb/day

Modified Organic Liquid Storage Tanks (S-33-112-5, '-139-5 and '-138-7):
Each of the proposed tank installations and modifications is subject to BACT for VOC because they are part of a project that is a Federal Major Modification for VOC.

Retrofitted Heaters S-33-56-30 (Unit 21: 21-H21), S-33-349 (Unit 27: 27-H2) and S-33-52-17 (Unit 26: 26-H13/15):
In accordance with Rule 2201, Section 4.2.3, BACT is not required since the heater modifications to install low NOx burner retrofits are being completed solely for the purpose of complying with the requirements of Rule 4306 and for reasons discussed in part **"d. SB 288/Federal Major Modification"**, below.

d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project does constitute an SB 288 and/or Federal Major Modification. Therefore BACT is triggered for all criteria pollutants for all emissions units in the project for which there is an emission increase.

In determining which units are new or modified, the definitions in the appropriate version of 40 CFR 51.165 shall be used, and not the definitions in Rule 2201.

In the 12/19/02 version of 40 CFR 51.165 (the criteria used to determine if a project is an SB288 Major Modification) emissions units are part of a SB288 major modification if there is a physical change in or a change in the method of operation that results in a emission increase calculated pursuant to the procedures in that version 51.165, i.e. potential to actual test for existing units and potential to emit for new units, that is significant.

In the most current version of 40 CFR 51.165 (the criteria used to determine of a project is a Federal Major Modification), emission units are part of a Federal major modification if there is a physical change in or a change in the method of operation that results in a emission increase calculated pursuant to the procedures in 51.165 that is significant. If the unit does not result in a significant emission increase, then it is not considered in the applicability determinations. Therefore, such a unit would not be required to have BACT, even if other units in the "project" were required to have BACT.

As the retrofitted heaters (S-33-56-30 (Unit 21: 21-H21), S-33-349 (Unit 27: 27-H2) and S-33-52-17 (Unit 26: 26-H13/15) are being modified soley for rule compliance and are not undergoing an actual change in the method of operation that results in an emission increase, they are not included in the applicability calculations.

2. BACT Guideline

Boilers: In the absence of a SJVAPCD BACT Guideline, the District utilizes the most recent prohibitory rule, which in this case is Rule 4320. (See Attachment D).

New and Modified Fugitive Components: District BACT Guidelines 7.2.2 (Petroleum Refinery - Valves and Connectors) and 7.2.3 (Refinery Pump and Compressor Seals) apply to fugitive VOC emissions from units at a petroleum refinery. These Guidelines define a leak as 100 ppmv (as methane) above background for valves and connectors and 500 ppmv (as methane) above background for pumps and compressor seals, in conjunction with an LDAR program consistent with District Rule 4455. Compliance with Rule 4455 will satisfy BACT.

New Crude Oil Rail Car Unloading Facility (S-33-440): District BACT Guideline 7.1.14 applies to "Light Crude Oil unloading racks". Emissions from unloading volatile organic liquids from railcars include both fugitive VOC emissions from the components of the loading rack and VOC emissions from residual organic liquids lost in disconnecting the loading rack equipment from railcars. As identified in the Top Down BACT Analysis included as **Appendix D**, dry-break couplers will be used to minimize emissions and limited to 3.2 mL/disconnect (proposed connectors have a residual average loss of 3.2 mL/disconnect per BACT) and fugitive components will be subject to Rules 4409 and 4455 as applicable.

New and Modified Floating Roof Organic Liquid Storage Tanks: District BACT Guideline 7.3.3 applies to floating roof organic liquid storage or processing tanks with a capacity of at least 471 bbl. This Guideline specifies 95% control of VOC emissions, through use of primary metal shoe seal with secondary wiper, or equivalent, constitutes BACT. The VOC emissions from the tanks will be controlled through the use primary and secondary seals on the floating roof and installation of a domed roof; this meets the District's BACT Guideline requirements and is the most stringent level of emission control present in a SIP or achieved in practice for a floating roof tank.

New fixed roof tanks: District BACT Guideline 7.3.2 applies fixed roof tanks. BACT is satisfied by being recovered with a 99% control efficiency and vapors being used as fuel for the refinery combustion units. See **Appendix D** for a detailed BACT Top down analysis.

3. Top-Down BACT Analysis

Per Permit Services Policies and Procedures for BACT, a Top-Down BACT analysis shall be performed as a part of the application review for each application subject to the BACT requirements pursuant to the District's NSR Rule.

Pursuant to the attached Top-Down BACT Analysis (see **Appendix D**), BACT has been satisfied with the following:

Boilers (S-33-441, '-442 & '-443): The following specifies BACT for these emission units.

- NOx: 6 ppmv at 3% O_2 using low NOx burners
- CO: 25 ppmv CO at 3% O_2
- PM: Use of natural gas with a fuel sulfur content no greater than 5 grains total sulfur/100 scf; Alon proposes to fire these boilers on PUC-quality natural gas as supplied to them by the utility company.
- SOx: Natural gas with a fuel sulfur content no greater than 5 grains total sulfur/100 scf; Alon proposes to fire these boilers on PUC regulated natural gas.
- VOC: Good Combustion Practices

New Fugitive Components. As described in SJVAPCD BACT Guidelines 7.2.2 and 7.2.3. Leaks limited to 100 ppmv (as methane) above background for valves and connectors and 500 ppmv (as methane) above background for pumps and compressor seals, in conjunction with an LDAR program consistent with District Rule 4455. Compliance with Rule 4455 will satisfy BACT.

New Crude Oil Rail Car Unloading Facility (S-33-440): SJVAPCD BACT Guideline 7.1.14 was referenced for this operation. The emissions are from fugitive components, compliance with Rule 4455 constitutes BACT. Emissions from unloading volatile organic liquids from railcars include both fugitive VOC emissions from the components of the loading rack and VOC emissions from residual organic liquids lost in disconnecting the loading rack equipment from railcars. Dry-break couplers will also be used to minimize emissions and limited to 3.2 mL/disconnect (proposed connectors have a residual average loss of 3.2 mL/disconnect per BACT).

New and Modified Floating Roof Organic Liquid Storage Tanks: SJVAPCD BACT Guideline 7.3.3 was referenced for this operation. BACT is 95% control of VOC emissions, through use of primary metal shoe seal with secondary wiper, installation of a domed roof or equivalent, constitutes BACT. The VOC emissions from the tanks will be controlled through the use primary and secondary seals on the floating roof; this meets the District's BACT Guideline requirements and is the most stringent level of emission control present in a SIP or achieved in practice for a floating roof tank.

New fixed roof tanks: SJVAPCD BACT Guideline 7.3.2 was referenced for this operation. New fixed roof tanks shall be equipped with vapor recovery, which constitutes BACT for this class of source. Vapors recovered from the tanks will be used as fuel for the refinery combustion units required by SJVAPCD

B. Offsets

1. Offset Applicability

Offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

The SSPE2 is compared to the offset thresholds in the following table.

Offset Determination (lb/year)					
	NO_X	SO_X	PM_{10}	CO	VOC
SSPE2	**	**	**	**	**
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	Yes	Yes	Yes	Yes	Yes

** As explained above, it has been stipulated that all offset thresholds have been exceeded.

2. Quantity of Offsets Required

As seen above, the facility is an existing Major Source for all criteria pollutants and the SSPE2 is greater than the offset thresholds. Therefore offset calculations will be required for this project.

The quantity of offsets in pounds per year is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) = $(\Sigma[PE2 - BE] + ICCE) \times DOR$, for all new or modified emissions units in the project,

Where,
PE2 = Post Project Potential to Emit, (lb/year)
BE = Baseline Emissions, (lb/year)
ICCE = Increase in Cargo Carrier Emissions, (lb/year)
DOR = Distance Offset Ratio, determined pursuant to Section 4.8
BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, Located at a Major Source.

otherwise,

BE = HAE

Offsets Required (lb/year) = ([PE2 – BE] + ICCE) x DOR

Where:

For ICCE

Pursuant to Section 4.7.1 of Rule 2201 emissions from cargo carriers (trains) while dedicated to the refinery and on-site will be assessed and emissions mitigated, as these operations are cargo carriers that are dedicated to the facility. Please refer to additional information provided under the "Process Description" and the "New Crude Oil Rail Car Unloading Facility (S-33-440)" section.

For DOR:

As outlined below, all ERC certificates to be provided represent emission reductions made at this facility. However, per Rule 2201 Section 4.8.1, the DOR is 1.5 for NOx and VOC offsets that are part of Federal Major Modification. The DOR is 1 for all other pollutants.

As outlined in Section VII.C.6 above, the BE from units associated with this Project is defined as follows:

Retrofitted Heaters S-33-56-30 (Unit 21: 21-H21), S-33-349 (Unit 27: 27-H2) and S-33-52-17 (Unit 26: 26-H13/15):

In accordance with Rule 2201, Section 4.6.8, offsets are not required since the heater modifications to install low NOx burner retrofits are being completed solely for the purpose of complying with the requirements of Rule 4306.

- **Existing Clean Emissions Units, where BE = PE1:**
  - Existing EFR and fixed roof tanks with connection to the vapor recovery system;
  - Existing fugitive components;
  - Existing Sales Terminal loading rack;

- **Existing Units, other, where BE = HAE:**
  - (No equipment falls within this category)

- **New Emissions Units, where BE = 0:**
  - Boilers
  - Crude Railcar Unloading Facility
  - Propane Refrigeration Skid
  - Domed internal floating roof crude storage tanks
  - Fixed roof custody transfer tanks

Equation:

Offsets Required (lb/year) = ([PE2 – BE] + ICCE) x DOR

Where:

ICCE is shown below in the below tables and is associated with S-33-440-0.

From the above tables the PE2 and BE for the individual permits are as follows:

PE2:

PE2 (lb/year)					
Permit Unit	NO_X	SO_X	PM_{10}	CO	VOC
S-33-8-26	0	0	0	0	3018
S-33-9-18	0	0	0	0	518
S-33-10-8	0	0	0	0	1998
S-33-11-13	0	0	0	0	6899
S-33-12-12	0	0	0	0	9609
S-33-13-25	0	0	0	0	5030
S-33-49-8	0	0	0	0	0
S-33-52-18 (fugitive)	- -	- -	- -	- -	278000
S-33-52-18 (combustion)	4791	1564	979	19455	709
S-33-56-30 (fugitive)	- -	- -	- -	- -	49857
S-33-56-30 (combustion)	7666	3129	1958	38890	1417
S-33-63-13	0	0	0	0	0
S-33-112-5	0	0	0	0	0
S-33-124-10	0	0	0	0	138418
S-33-138-7	0	0	0	0	0
S-33-139-5	0	0	0	0	0
S-33-349-18 (fugitive)	- -	- -	- -	- -	34555
S-33-349-18 (combustion)	8943	3650	2284	45371	1653
S-33-372-4	0	0	0	0	1643
S-33-440-0	0	0	0	0	3064
S-33-440-0 (cargo carrier)	10000	0	260	2060	380
S-33-441-0	1342	2576	1371	3402	992
S-33-442-0	1342	2576	1371	3402	992
S-33-443-0	1342	2576	1371	3402	992
S-33-444-0	0	0	0	0	461
S-33-445-0	0	0	0	0	461
S-33-446-0	0	0	0	0	7493
S-33-447-0	0	0	0	0	7493
S-3303-1-6	0	0	0	0	19409

BE:

BE (lb/year)					
Permit Unit	NO_X	SO_X	PM_{10}	CO	VOC
S-33-8-25	0	0	0	0	2276
S-33-9-17	0	0	0	0	501
S-33-10-7	0	0	0	0	1900
S-33-11-12	0	0	0	0	6862
S-33-12-11	0	0	0	0	9600
S-33-13-24	0	0	0	0	4208
S-33-49-6	0	0	0	0	0
S-33-52-17 (fugitive)	- -	- -	- -	- -	277911
S-33-52-17 (combustion)	n/a	n/a	n/a	n/a	n/a
S-33-56-28 (fugitive)	- -	- -	- -	- -	49750
S-33-56-28 (combustion)	n/a	n/a	n/a	n/a	n/a
S-33-63-12	0	0	0	0	0
S-33-112-4	0	0	0	0	0
S-33-124-9	0	0	0	0	137605
S-33-138-6	0	0	0	0	0
S-33-139-4	0	0	0	0	0
S-33-349-16 (fugitive)	- -	- -	- -	- -	33,909
S-33-349-16 (combustion)	n/a	n/a	n/a	n/a	n/a
S-33-372-3	0	0	0	0	1643
S-33-440-0	0	0	0	0	0
S-33-441-0	0	0	0	0	0
S-33-442-0	0	0	0	0	0
S-33-443-0	0	0	0	0	0
S-33-444-0	0	0	0	0	0
S-33-445-0	0	0	0	0	0
S-33-446-0	0	0	0	0	0
S-33-447-0	0	0	0	0	0
S-3303-1-5	0	0	0	0	19199

The table below represents PE2 – BE from the tables above.

PE2 – BE :

PE2 - BE (lb/year)					
Permit Unit	NO_X	SO_X	PM_{10}	CO	VOC
S-33-8-26	0	0	0	0	742
S-33-9-18	0	0	0	0	17
S-33-10-8	0	0	0	0	98
S-33-11-13	0	0	0	0	37
S-33-12-12	0	0	0	0	9
S-33-13-25	0	0	0	0	822
S-33-49-8	0	0	0	0	0
S-33-52-18	0	0	0	0	89
S-33-52-18 (combustion)	n/a	n/a	n/a	n/a	n/a
S-33-56-30	0	0	0	0	108
S-33-56-30 (combustion)	n/a	n/a	n/a	n/a	n/a
S-33-63-13	0	0	0	0	0
S-33-112-5	0	0	0	0	0
S-33-124-10	0	0	0	0	813
S-33-138-7	0	0	0	0	0
S-33-139-5	0	0	0	0	0
S-33-349-18	0	0	0	0	647
S-33-349-18 (combustion)	n/a	n/a	n/a	n/a	n/a
S-33-372-4	0	0	0	0	0
S-33-440-0	10000	0	260	2060	3064+380
S-33-441-0	1342	2576	1371	3402	992
S-33-442-0	1342	2576	1371	3402	992
S-33-443-0	1342	2576	1371	3402	992
S-33-444-0	0	0	0	0	461
S-33-445-0	0	0	0	0	461
S-33-446-0	0	0	0	0	7493
S-33-447-0	0	0	0	0	7493
S-3303-1-6	0	0	0	0	210
Total:	14,026	7,728	4,373	12,266	31,108

As explained above:

BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, Located at a Major Source.

otherwise,

BE = HAE

Combustion emissions in the above table for the retrofit of burners for rule compliance are shown as n/a. These actions are exempt from offset requirements and calculations to determine offset quantities are not required.

Offsets Required (lb/year)					
Permit Unit	NO_X	SO_X	PM_{10}	CO	VOC
S-33-8-26	0	0	0	0	1113
S-33-9-18	0	0	0	0	26* = 0
S-33-10-8	0	0	0	0	147* = 0
S-33-11-13	0	0	0	0	56* = 0
S-33-12-12	0	0	0	0	14* = 0
S-33-13-25	0	0	0	0	1232
S-33-49-8	0	0	0	0	0
S-33-52-18	0	0	0	0	134* = 0
S-33-56-30	0	0	0	0	162* = 0
S-33-63-13	0	0	0	0	0
S-33-112-5	0	0	0	0	0
S-33-124-10	0	0	0	0	1219
S-33-138-7	0	0	0	0	0
S-33-139-5	0	0	0	0	0
S-33-349-18	0	0	0	0	970
S-33-372-4	0	0	0	0	0
S-33-440-0	15000	0	260	2060	4596+570
S-33-441-0	2012	2576	1371	3402	1488
S-33-442-0	2012	2576	1371	3402	1488
S-33-443-0	2012	2576	1371	3402	1488
S-33-444-0	0	0	0	0	692
S-33-445-0	0	0	0	0	692
S-33-446-0	0	0	0	0	11240
S-33-447-0	0	0	0	0	11240
S-3303-1-6	0	0	0	0	315
Total:	21,036	7,728	4,373	12,266	38,343

*Per District Policy, zero offsets for offset amounts that are ≤ 0.5 lb/day

The facility plans to use the following ERC certificates to offset the increases in pollutant emissions associated with the Crude Flexibility Project. All of the associated emission reductions were made at this facility. These certificates have available quarterly credits shown below. The credits identified are sufficient to meet the offset requirement for the project.

Alon Available ERC Certificate Credits

Pollutant	ERC #	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual
NOx	S-4334-2	95,700	98,089	100,530	100,530	394,849
SOx	S-3465-5	5,548	5,771	4,951	5,990	22,260
PM_{10}	S-3462-4	1,584	1,877	1,791	1,974	7,226
CO	S-3458-3	92,236	92,237	92,237	92,237	368,947
VOC	S-3663-1	38,947	38,947	38,947	38,948	155,789

C. Public Notification

1. Applicability

Public noticing is required for:

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
c. Any project which results in the offset thresholds being surpassed, and/or
d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications

New Major Sources are new facilities, which are also Major Sources. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

However, as demonstrated in Sections VII.C.7 and VII.C.8, this project is an SB 288 and Federal Major Modification. Therefore, public noticing for SB 288 and Federal Major Modification purposes is required.

b. PE > 100 lb/day

Applications which include new emissions units each with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. As seen in Section VII.C.2 above, the Crude Flexibility Project does not include any new emissions unit which has daily emissions greater than 100 lb/day for any pollutant, therefore public noticing for PE > 100 lb/day purposes is not required.

c. Offset Threshold

As discussed in Sections VII.C.3 and VII.C.4 above, facility emissions are already above the Offset and Major Source Thresholds for all pollutants, therefore public noticing for surpassing the offset threshold is not required.

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a SSIPE of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE = SSPE2 – SSPE1. As demonstrated above, the SSIPEs for VOC were greater than 20,000 lb/year; therefore public noticing for SSIPE purposes is required.

2. Public Notice Action

As discussed above, public noticing is required for this project. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB), United States Environmental Protection Agency (US EPA) and a public notice will be published in a local newspaper of general circulation prior to the issuance of the ATC for this equipment.

D. Daily Emission Limits (DELs)

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.15 to restrict a unit's maximum daily emissions to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.15.1 and 3.15.2, the DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and must be enforceable, in a practicable manner, on a daily basis. The proposed DEL conditions for fugitive emissions from these units limit emissions based on the component counts and specify that emission calculations are performed using the CAPCOA correlation equation methods.

For the heaters (21-H21, 26-H13/15, and 27-H2) and the three new boilers, the DELs are stated in the form of emission factors (ppmv or lb/MMscf), the maximum heat input, and the maximum operational time of 24 hours per day.

The proposed DEL conditions for emissions from the crude storage and custody transfer tanks are based on daily throughput.
Proposed Rule 2201 (DEL) Conditions:

Fugitive Components:

- Unit 8 Fugitives (S-33-11-13) – Fugitive volatile organic compound (VOC) emissions, as determined by annual component count, annual LDAR results, and District approved emission factors, shall not exceed 18.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

- Unit 9 Fugitives (S-33-12-11) – Fugitive volatile organic compound (VOC) emissions, as determined by annual component count, annual LDAR results, and District approved emission factors, shall not exceed 26.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- Unit 10 Fugitives (S-33-8-26) – Fugitive volatile organic compound (VOC) emissions, as determined by annual component count, annual LDAR results, and District approved emission factors, shall not exceed 8.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- Unit 11 Fugitives (S-33-9-18) – Fugitive volatile organic compound (VOC) emissions, as determined by annual component count, annual LDAR results, and District approved emission factors, shall not exceed 1.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- Unit 12 Fugitives (S-33-10-8) – Fugitive volatile organic compound (VOC) emissions, as determined by annual component count, annual LDAR results, and District approved emission factors, shall not exceed 5.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- Unit 14 Fugitives (S-33-13-25) – Fugitive volatile organic compound (VOC) emissions, as determined by annual component count, annual LDAR results, and District approved emission factors, shall not exceed 13.78 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- Unit 21 Fugitives (S-33-56-30) – Fugitive volatile organic compound (VOC) emissions, as determined by annual component count, annual LDAR results, and District approved emission factors, shall not exceed 136.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- Unit 25 Fugitives (S-33-124) – Fugitive volatile organic compound (VOC) emissions, as determined by annual component count, annual LDAR results, and District approved emission factors, shall not exceed 379.23 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- Unit 26 Fugitives (S-33-52) – Fugitive volatile organic compound (VOC) emissions, as determined by annual component count, annual LDAR results, and District approved emission factors, shall not exceed 761.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- Unit 27 Fugitives (S-33-349) – Fugitive volatile organic compound (VOC) emissions, as determined by annual component count, annual LDAR results, and District approved emission factors, shall not exceed 94.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

- Railcar Loading Fugitives (S-33-440):
  - Fugitive volatile organic compound (VOC) emissions, as determined by annual component count, annual LDAR results, and District approved emission factors, shall not exceed 7.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
  - The transfer rack vapor collection and control equipment shall be designed, installed, maintained and operated such that there are no leaks and no excess organic liquid drainage at disconnections. [District Rule 4624, 5.6]
  - Excess organic liquid drainage is defined as more than 3.2 milliliters liquid drainage per disconnect. Such liquid drainage for disconnect operations shall be determined by computing the average drainage from three consecutive disconnects at any one permit unit. [District Rule 2201, District Rule 4624, 3.13]

Existing Heaters:

- Unit 26 (S-33-52):
  - Emission rates from heater 26-H13/15 shall not exceed any of the following limits: PM10: 7.6 lb/MMscf, NOx: 30 ppmv @ 3% O2, VOC: 5.5 lb/MMscf, and CO: 200 ppmv @ 3% O2. [District Rules 2201] Federally Enforceable Through Title V Permit
  - Heat input rate for combined heater 26-H13/15 shall not exceed 360 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
  - Fuel sulfur content shall not exceed 5 grains of sulfur per 100 standard cubic feet. [District Rule 4320] Federally Enforceable Through Title V Permit
- Unit 21 (S-33-56)
  - Emission rates from heater 21-H21 (formerly 26-H17) shall not exceed any of the following limits: PM10: 7.6 lb/MMscf, NOx: 24 ppmv @ 3% O2, VOC: 5.5 lb/MMscf, and CO: 200 ppmv @ 3% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
  - Heat input for heater 21-H21 shall not exceed 720 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
  - Fuel sulfur content shall not exceed 5 grains of sulfur per 100 standard cubic feet. [District Rule 4320]

- Unit 27 (S-33-349)
  - Emission rates from heater 27-H2 (formerly 11-H11) shall not exceed any of the following limits: PM10: 7.6 lb/MMscf, NOx: 24 ppmv @ 3% O2, VOC: 5.5 lb/MMscf, and CO: 200 ppmv @ 3% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
  - Heat input for heater 27-H2 shall not exceed 840 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit

- Fuel sulfur content shall not exceed 5 grains of sulfur per 100 standard cubic feet. [District Rule 4320] Federally Enforceable Through Title V Permit

New Boilers:

- S-33-441, '-442, '-443:
  - Emission rates from boiler shall not exceed any of the following limits: PM10: 7.6 lb/MMscf, NOx: 6 ppmv @ 3% O2, VOC: 5.5 lb/MMscf, and CO: 25 ppmv @ 3% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
  - Heat input rate for boiler shall not exceed 504 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
  - Unit shall be only fired on PUC-regulated natural gas. [District Rule 2201, District Rule 4301, 5.2.1 and 40 CFR § 60.42c(d)] Y
  - Fuel sulfur content shall not exceed 5 grains of sulfur per 100 standard cubic feet. [District Rule 4320 and PUC General Order 58A] Federally Enforceable Through Title V Permit

New Crude Tanks:

- S-33-446, '-447: Total combined organic liquid throughput for tanks 71-T150M01 and 71-T150M02 shall not exceed 225,000 bbl/day, or 54,750,000 bbl/year. Permittee shall maintain daily records of tank throughput and shall make such records readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

E. Compliance Assurance

1. Source Testing

Heaters and Boilers:

District Rule 4306 requires NOx and CO emission testing not less than once every 12 months. Gaseous fuel fired units demonstrating compliance on two consecutive compliance source tests may defer the following source test for up to thirty-six months. In order to demonstrate compliance with the enhanced emission limitations in Rule 4320 and Rule 4306, source testing for NOx and CO will be required within 60 days of initial operation and at least once every 12 months thereafter. Upon demonstrating compliance on two consecutive source tests, the following source test may be deferred for up to thirty-six months. If source testing is deferred, tune-ups must be performed at least twice yearly in the interim, and operational parameters recommended by the manufacturer must be monitored monthly to ensure compliance with emission limits. Source testing for Rule 4306 also satisfies any source testing requirements for Rule 2201. No additional source testing is required.

Tanks:

No source testing of the tanks will be required.

Fugitive Emissions:
Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201. Periodic LDAR inspections will be conducted in accordance with Rule 4455.

2. Monitoring

Heaters and Boilers:
District Rule 4306 requires the owner of any unit subject to the emission limits of the rule to either install and maintain continuous emissions monitoring equipment for NOx, CO, and oxygen, as identified in Rule 1080 (Stack Monitoring), or follow an APCO-approved alternate monitoring plan. The facility proposes to meet the monitoring requirements of District Rule 4306 by monitoring NOx and O_2 concentrations and utilizing pre-approved alternate monitoring plan "A" (Periodic Monitoring NOx, CO, and O_2 Emissions Concentrations) to monitor CO. Monitoring for Rule 4306 also satisfies the monitoring requirements for Rule 2201. The following monitoring permit conditions will apply (per District Policy SSP 1105):

- The permittee shall monitor and record the stack concentration of CO and O_2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4306]

- If the CO concentration corrected to 3% O_2, as measured by the portable analyzer, exceeds the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the excursions are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4306]

- All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4306]

Floating Roof Tanks:
Seal gap measurements and inspections will be conducted in accordance with the requirements of District Rule 4623.

Fixed Roof Tanks:
Monitoring will be conducted per District Rule 4623.

Fugitive Components:
The permittee shall conduct inspections of the fugitive components in accordance with the specifications and frequency for each component type defined in Section 5.2 of Rule 4455.

3. Recordkeeping

Heaters and Boilers:
Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. Records of source tests and monitoring data will be maintained as required for at least five years. In addition, records of durations of startup and shutdown periods will be maintained as required by District Rule 4306, section 6.1.4.

In addition, the following records will be maintained to comply with the alternate monitoring plan for NOx, CO, and O2 (per District Policy SSP 1105): (1) the date and time of NOx and CO measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range.

Tanks:
Recordkeeping is required to demonstrate compliance with the offset and daily emission limit requirements of Rule 2201. Daily throughput records and records of material stored are maintained for at least five years, as are records of seal gap measurements and inspections.

Crude Oil Rail Car Unloading Facility and Fugitives:
Component counts will be kept on records. Rule 4455 LDAR leak inspection results will be kept on record.

4. Reporting

Heaters and Boilers:
If monitoring equipment operates outside the normal range or level for NOx or CO, and the excursion is not corrected within 1 hour of operation after detection, the District will be notified within the following hour. Excursions corrected within one hour of operation after detection must only be recorded.

Tanks:
Seal gap inspection reports and notifications will be submitted as required by NSPS Subparts A and Kb. This reporting will demonstrate compliance with Rule 2201.

Crude Oil Rail Car Unloading Facility:
No reporting is required to demonstrate compliance with Rule 2201.

Fugitives:
No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

An AAQA shall be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The District's Technical Services Division conducted the required analysis. Refer to **Appendix E** of this document for the AAQA summary sheet.

The proposed location is in an attainment area for NO_X, CO, and SO_X. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for NO_X, CO, or SO_X.

The proposed location is in a non-attainment area for the state's PM_{10} as well as federal and state $PM_{2.5}$ thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM_{10} and $PM_{2.5}$.

G. Compliance Certification

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Title I Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Section VII.C.7, the Crude Flexibility Project, of which this application is a part, does constitute a Title I modification, therefore this requirement is applicable. Included in **Attachment J** is Alon's compliance certification.

H. Alternate Siting Analysis

The current project occurs at an existing facility. The objectives of the Project are to provide greater flexibility for the refinery to utilize a variety of crude oils that can be processed by the facility in order to better manage operational costs and also to increase efficiency of onsite production. In addition, the Project will expand the existing crude terminal operations of the facility. In order to accomplish the Project objectives, facilities must be installed to enable crude delivery via unit train and transfer of crude into the refinery for processing and into the existing pipeline network for transfer to other refineries. As part of the Project, minor unit efficiency upgrades and modifications are planned to enhance operating flexibility required to process crude oils with different physical properties.

Since the new project will occur at the same location, the existing site will result in the least possible impact from the project. Alternative sites would involve the relocation and/or construction of various support structures on a much greater scale, and would therefore result in a much greater impact.

Rule 2410 Prevention of Significant Deterioration

The facility or the equipment evaluated under this project is listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). Therefore the PSD Major Source threshold is 100 tpy for any regulated NSR pollutant.

PSD Major Source Determination (tons/year)						
	NO2	VOC	SO2	CO	PM	PM10
Estimated Facility PE before Project Increase	--	--	--	--	--	--
PSD Major Source Thresholds	100	100	100	100	100	100
PSD Major Source ? (Y/N)	--	Yes	--	--	--	--

The applicant has stipulated that the facility is an existing PSD major source for VOC. It is not necessary to determine if the facility is also a PSD major source for any other pollutants.

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

- NO2 (as a primary pollutant)
- SO2 (as a primary pollutant)
- CO
- PM
- PM10

The first step of this PSD applicability determination consists of determining whether the facility is or is not an existing PSD Major Source (See above). The source is an existing PSD major source.

As the facility is an existing PSD Major Source, the second step in determining PSD applicability is to determine if the project results in a significant increase and if so, also a significant net emissions increase for any PSD pollutant.

I. Project Location Relative to Class 1 Area

As demonstrated in the "PSD Major Source Determination" Section above, the facility was determined to be a existing PSD Major Source. Because the project is not located within 10 km (6.2 miles) of a Class 1 area – modeling of the emission increase is not required to determine if the project is subject to the requirements of Rule 2410.

II. Project Emission Increase – Significance Determination

As a screening tool, the post-project potential to emit from all new and modified units is compared to the PSD significant emission increase thresholds, and if the total potentials to emit from all new and modified units are below the applicable thresholds, no futher PSD analysis is needed.

a. Evaluation of Calculated Emission Increases vs PSD Significant Emission Increase Thresholds

In this step, the emission increase for each subject pollutant is compared to the PSD significant emission increase threshold, and if the emission increase for each subject pollutant is below their threshold, no futher analysis is required.

For new emissions units, the increase in emissions is equal to the PE2 for each new unit included in this project.

For existing emissions units, the increase in emissions is calculated as follows:

Emission Increase = PAE – BAE - UBC

Where: PAE = Projected Actual Emissions, and
BAE = Baseline Actual Emissions
UBC = Unused baseline capacity

For the retrofitted heaters, the project does not result in an increase in design capacity or potential to emit, and it does not impact the ability of the emission unit to operate at a higher utilization rate, the UBC is the portion of PAE that the emission units could have accommodated during the baseline period.

The project's combined total emission increases are calculated in **Appendix J** and compared to the PSD significant emission increase thresholds in the following table.

	NO2	SO2	CO	PM	PM10
Emission Increases (only)	7.0	3.9	6.1	2.2	2.2
PSD Significant Emission Increase Thresholds	40	40	100	25	15
PSD Significant Emission Increase?	No	No	No	No	No

As shown in the table above, the emission increases from the project, for all new and modified emission units, do not exceed any of the PSD significant emission increase thresholds. Therefore the project does not result in a PSD major modification and no further discussion is required.

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. A significant permit modification is defined as a "permit amendment that does not qualify as a minor permit modification or administrative amendment."

A minor permit modification is a permit modification that does not meet the definition of modification as given in Section 111 or Section 112 of the Federal Clean Air Act. Since this project involves the installation of a new emission unit that is subject to an NSPS requirement, the proposed project is considered to be a modification under the Federal Clean Air Act. As a result, the proposed project constitutes a Significant Modification to the Title V Permit.

As discussed above, the facility has applied for a Certificate of Conformity (COC); therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility shall not implement the changes requested until the final permit is issued.

Rule 2550 Federally Mandated Preconstruction Review for Major Sources of Air Toxics

The Refinery is not a major source of air toxics; therefore the facility is not subject to Rule 2550 and is not required to apply TBACT to construction of new sources. HAP emissions are limited below major source thresholds via a federally-enforceable permit condition; even with the modification of the Crude Flexibility Project units, HAP emissions will remain below the relevant thresholds. **Attachment E** provides a table summarizing the facility's HAP emissions after the Crude Oil Flexibility Project; these emissions totals support the refinery's minor source status under 40 CFR Part 63.

Rule 4001 New Source Performance Standards (NSPS)

40 CFR Part 60 Subpart A – General Provisions

Because this project is subject to NSPS standards noted below, it is also subject to NSPS Subpart A, which defines general standards applicable to affected facilities. Subpart A details the recordkeeping, reporting, and notification responsibilities associated with NSPS compliance. The facility will continue to comply with the provisions of NSPS Subpart A.

40 CFR Part 60 Subpart J – Standards of Performance for Petroleum Refineries

NSPS Subparts J and Ja regulate SOx emissions from fuel gas combustion devices such as the heaters. Modification under the new source performance standards (NSPS) means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.

Under Paragraph 24(a) of the Heaters and Boilers Consent Decree,[3] all heaters and boilers at the Bakersfield Refinery that burn fuel gas are subject to applicable requirements of NSPS Subpart J. Therefore, heaters 21-H21, 26-H13/15, and 27-H2 are subject to requirements of Subpart J. The Subpart J sulfur dioxide standard limits the fuel gas fired in these heaters to a hydrogen sulfide (H2S) content of no more than 0.10 gr/dscf (see §60.104(a)(1)). Compliance with this limit is demonstrated either through monitoring of the fuel gas H2S content according to the provisions under §60.105(a)(4), or through an approved alternative monitoring plan..

[3] Heaters and Boilers Consent Decree in *U.S. et al. v. Motive Enterprises LLC et al.*, Civil Action No. H-01-0978, U.S. District Court for the Southern District of Texas, available at www.epa.gov/compliance/resources/cases/civil/caa/equilon.html (accessed October 9, 2013).

40 CFR Part 60 Subpart Ja – Standards of Performance for Petroleum Refineries

Fuel gas combustion devices operated at petroleum refineries that are constructed, reconstructed, or modified after May 14, 2007 are subject to the requirements of Subpart Ja.

Heaters 21-H21, 26-H13/15, and 27-H2 are existing fuel gas combustion devices that will be retrofit to demonstrate compliance with District Rule 4306. The burner retrofits proposed constitute a physical change to the heaters as described in the definition of "modification". However, this project will not increase potential emissions of SOx, the pollutant regulated under NSPS Subpart Ja, due to compliance with the lower fuel sulfur limits defined in District Rule 4320. Therefore, this project will not constitute a "modification" of an existing facility relative to Subpart Ja. Additionally, the project does not constitute a reconstruction of the source, as the fixed capital cost of the new burners for the heaters does not exceed 50% of the fixed capital cost that would be required to construct comparable new heaters. Therefore, the heaters will not be subject to Subpart Ja; Subpart J will continue to apply to the heaters.

Since the three new boilers proposed for construction will be fueled on PUC-quality natural gas, they will not be subject to the requirements of Subpart Ja.

40 CFR Part 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

Subpart Kb applies to volatile organic liquid (VOL) storage vessels greater than 75 m3 which are constructed, modified, or reconstructed after July 23, 1984 (60.110b(a)). The new tanks proposed for construction as part of the Crude Oil Flexibility Project (T10M25, T10M26, T150M01, and T150M02) will be subject to the control requirements of Subpart Kb as the capacity of each is greater than 151 m3 and the vapor pressure of the liquid to be stored is greater than 15 kPa. Compliance with Subpart Kb will be demonstrated through the installation of fixed roofs on the two custody transfer tanks (T10M25 and T10M26), and internal (domed) floating roofs on the two crude storage tanks (T150M01 and T150M02). An operating plan will be prepared for the fixed roof tanks in accordance with Subpart Kb requirements and submitted to the District.

40 CFR Part 60 Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries

Subpart GGG applies to refining process units constructed, modified, or reconstructed after January 4, 1983. Two types of affected facilities are regulated under Subpart GGG: 1) an individual compressor, and 2) all fugitive emission components within a refining process unit (i.e., all valves, pumps, pressure relief devices, sampling connections, flanges and other connections). Subpart GGG requires minimum performance specifications, routine inspection, and repair of all such fugitive components consistent with §§ 60.482-1 through 60.481-10 under NSPS Subpart VV

(NSPS Leak Detection and Repair (LDAR) Program). The Bakersfield refinery LDAR program complies with District regulations and is more stringent than the NSPS LDAR program (see Rule 4455 - Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants). The Bakersfield refinery will continue to comply with the Subpart GGG performance testing (§60.485), recordkeeping (§60.486), and reporting requirements (§60.487) in the process units where Subpart GGG applies. In addition, Alon will continue to implement the applicable LDAR provisions from the Equilon Consent Decree.[4]

40 CFR 60 Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries For Which Construction, Reconstruction, Or Modification Commenced After November 7, 2006

Subpart GGGa applies to refining process units constructed, modified, or reconstructed after November 7, 2006. Two types of affected facilities are regulated under Subpart GGGa: 1) an individual compressor, and 2) all fugitive emission components within a refining process unit (i.e., all valves, pumps, pressure relief devices, sampling connections, flanges and other connections). Subpart GGGa requires minimum performance specifications, routine inspection, and repair of all such fugitive components consistent with §§ 60.482-1a through 60.481-11a under NSPS Subpart VVa (although portions of VVa, including 60.481-11a are currently stayed by EPA). The proposed project triggers NSPS Subpart GGGa in the following process units: Units 10, 12, 14, 21, 25, 26, and 27. New compressors are proposed as part of the project in Units 14 and 25. Although the Subpart GGG compressors currently within these units would not technically be subject to Subpart GGGa, Alon voluntarily accepts Subpart GGGa applicability for all compressors and equipment fugitive components within these units.

Subpart GGGa does not apply to Units 8, 9, and 11; because the fugitive component changes in these units are minor in nature, the changes are exempt under the capital expenditure exemption described in 40 CFR 60.14(e) and 40 CFR 60.480a.

Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

NESHAP for Equipment Leaks (Fugitive Emission Sources) of Benzene (40 CFR Part 61, Subpart J)

Part 61, Subpart J applies to specific sources of fugitive emissions in "benzene service," which is defined to mean "that a piece of equipment either contains or contacts a fluid that is at least 10 percent benzene by weight." The proposed Crude Flexibility Project will have no such sources of fugitive emissions, therefore Subpart J will not apply.

[4] Consent Decree in *U.S. et al. v. Equilon Enterprises LLC et al.*, Civil Action No. H-01-0978, U.S. District Court for the Southern District of Texas, available at www.epa.gov/compliance/resources/cases/civil/caa/equilon.html (accessed October 9, 2013).

NESHAP for Equipment Leaks (Fugitive Emission Sources) (40 CFR Part 61, Subpart V)

Part 61, Subpart V applies to specific sources of fugitive emissions in "volatile hazardous air pollutant (VHAP) service," which is defined to mean "that a piece of equipment either contains or contacts a fluid that is at least 10 percent by weight a VHAP." VHAP is defined to include only benzene and vinyl chloride. The proposed Crude Flexibility Project will have no sources of VHAP fugitive emissions, therefore Subpart V will not apply.

NESHAP for Benzene Waste Operations (40 CFR Part 61, Subpart FF)

Part 61, Subpart FF applies to all petroleum refineries (among other sources), regardless of the quantity of benzene processed. Refinery operators must determine the Total Annual Benzene (TAB) generated, as prescribed under §61.342(a). The Crude Flexibility Project will not result in a change to the compliance obligations under Subpart FF. The refinery will continue to maintain its TAB less than 10 Mg/year.

NESHAP for Source Categories (40 CFR Part 63)

Under the Clean Air Act Amendments of 1990, EPA was directed to establish NESHAP for specific classes or categories of sources with the potential to emit 10 or more tons/year of a single Hazardous Air Pollutant (HAP), or 25 tons/year of any combination of HAPs. This facility is not subject to the 40 CFR Part 63 NESHAPs for major sources of HAPs, because its facility-wide potential to emit HAPs falls below the 10/25 thresholds. HAP emissions are limited via a federally-enforceable permit condition; even with the addition of the Crude Flexibility Project units, HAP emissions will remain below the relevant thresholds. There are no 40CFRPart 63 NESHAPS that apply to area sources of haps that are relevant to this project

Rule 4101 Visible Emissions

Rule 4101 states that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). As the equipment will be fired on refinery fuel gas or natural gas, compliance with this rule is expected.

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, compliance with this rule is expected.

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – *Risk Management Policy for Permitting New and Modified Sources* specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

The District has reviewed the information provided by the processing Eng. and the Information provided by the applicant and has determined that the proposed project cancer risk would not be greater than 10 in one million. None of the units in the proposed project would have a risk greater than 1.0 in one million. Therefore the project is approved without TBACT. The HRA summary is included as **Attachment E.**

Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot. For the heaters and boilers:

F-factor for Natural Gas: 8,710 dscf/MMBtu at 68 °F, equivalent to

$$\text{Corrected F-factor} = \frac{8{,}710\,\text{dscf}}{MMBtu} \times \frac{60°F + 459.6}{68°F + 459.6} = 8{,}578\frac{dscf}{MMBtu}\text{ at 60 °F}$$

PM_{10} Emission Factor = 0.0075 lb/MMBtu

Assume 100% of PM in exhaust is PM_{10}.

$$GL = \left(\frac{0.0075\text{ lb PM}}{\text{MMBtu}} \times \frac{7{,}000\text{ gr}}{\text{lb PM}}\right) / \left(\frac{8{,}578\text{ ft}^3}{\text{MMBtu}} \times \frac{20.9}{20.9-3}\right)$$

GL = 0.0052 gr/scf < 0.1 gr dscf

HHV = 1200 Btu/scf, refinery gas higher heating value, typical value at Bakersfield Refinery
Fd = 8578 dscf/MMBtu dry F-factor for natural gas or refinery fuel gas, measured per 40 CFR Part 60, Appendix A, Method 19

Since 0.0052 grain/dscf is less than 0.1 grain/dscf, compliance with this rule is expected.

Rule 4202 Particulate Matter - Emission Rate

The purpose of this rule is to limit particulate matter emissions by establishing allowable emission rates. The calculation methods for determining the emission rate based on process weight are specified.

Equipment fired on PUC quality natural gas has been found to operate in compliance with requirements of this rule. Continued compliance is expected.

Rule 4301 Fuel Burning Equipment

Under Rule 4301, no fuel burning equipment may discharge combustion contaminants (particulate emissions due to combustion) to the atmosphere in a concentration exceeding 0.1 grain/dscf, calculated to 12% of carbon dioxide at the point of discharge. In addition, the proposed fuel burning equipment will not exceed 200 lb/hr SOx, 140 lb/hr NOx, or 10 lb/hr combustion contaminants. As shown in the discussion of Rule 4201, particulate emissions from each of the heaters associated with the Crude Flexibility Project are less than 0.1 gr/dscf.

Pollutant	Rule 4301 Limit	21-H21 S-33-56	26-H13/15 S-33-52	27-H2 S-33-340	New Boilers S-33-441 to '-443
NOx	140 lb/hr	0.88	0.55	1.02	0.15
SOx	200 lb/hr	0.36	0.18	0.42	0.29
PM_{10}	10 lb/hr	0.22	0.11	0.26	0.16

All values in lb/hr.

Rule 4305 Boilers, Steam Generators and Process Heaters – Phase 2

See the discussion for Rule 4306.

Rule 4306 Boilers, Steam Generators and Process Heaters – Phase 3

Rule 4306 limits emissions of NOx and CO from boilers, steam generators, and process heaters. Refinery units with a rated heat input greater than 5 MMBtu/hr up to 65 MMBtu/hr must comply with limits of 30 ppmv NOx and 400 ppmv CO. Compliance with Rule 4306 is anticipated since all heaters and boilers will meet the NOx and CO limits of this rule.

The operator of any unit subject to the emission limits of Rule 4306 must install and maintain an operational, APCO-approved Continuous Emissions Monitoring System (CEMS) for NOx, CO, and oxygen, or implement an APCO-approved Alternate Monitoring System. The facility proposes to meet the requirements of District Rule 4306 by utilizing pre-approved alternate monitoring plan "A" (Periodic Monitoring of NOx, CO, and O2 Emissions Concentrations).

Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr

Rule 4320 limits emissions of NOx, CO, SO_2, and PM_{10} from boilers, steam generators, and process heaters. Refinery units with a rated heat input greater than 20 MMBtu/hr up to 110 MMBtu/hr must either comply with limits of 6 ppmv NOx and 400 ppmv CO, or comply through payment of an annual fee. As discussed in **Attachment D** – BACT Analysis for New Boilers, 6 ppmv has been achieved in practice and will comply with the limits of this Rule. Compliance will be demonstrated through the use of low NOx burners achieving a limit of 6 ppmv NOx for the new boilers. The retrofit heaters will comply with Rule 4320 NOx requirements through paying the annual fee described in Section 5.3 of the Rule.

To comply with Section 5.4 Particulate Matter Control Requirements, pursuant to section 5.4.1.2, the applicant has proposed the following conditions be added to all permit units that support combustion.

- Fuel gas sulfur content shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320]
- Permittee shall determine sulfur content of combusted gas annually. [District Rules 1081 and 4320]

Compliance with this Rule 4320 is expected.

Rule 4351 Boilers, Steam Generators and Process Heaters – Phase 1

See the discussion for Rule 4306 and Rule 4320.

Rule 4454 Refinery Process Unit Turnaround

The purpose of this rule is to limit VOC emissions resulting from the purging, repair, cleaning, or otherwise opening or releasing pressure from a refinery vessel during a process unit turnaround. All refinery vessels are served by District approved vapor recovery systems. Continued compliance with this rule is expected.

Rule 4455 Components at Petroleum Refineries, Gas Liquids, Processing Facilities, and Chemical Plants

Section 5 specifies an inspection schedule, repair requirements, and operating practices to monitor and control fugitive emissions due to leaks from fugitive components at petroleum refineries and chemical plants. It is expected that the facility will continue to operate in compliance with Rule 4455, and will continue to perform proper inspections, maintenance activities and recordkeeping per Rule 4455 requirements to maintain compliance.

Rule 4623 Storage of Organic Liquids

This rule applies to any tank with a design capacity of 1,100 gallons or greater used to store organic liquid with a True Vapor Pressure (TVP) of 0.5 psia or greater. Since these tanks are greater than 1,100 gallons and store organic liquid with a TVP >0.5 psia they are subject to this rule.

Section 5.1 requires that, except for small producers who are required to comply with the VOC control system requirements in Section 5.1.2, an operator shall not place, hold, or store organic liquid in any tank unless such tank is equipped with a VOC control system identified in Table 1. The specifications for the VOC control system are described in Sections 5.2, 5.3, 5.4, 5.5, and 5.6.

Section 5.1.1 identifies VOC control systems required for organic liquids storage tanks.

Tank Design Capacity (gallon)	True Vapor Pressure (TVP) of Organic Liquid		
	0.5 < TVP (psia) ≤1.5	1.5 < TVP (psia) ≤11	11 < TVP (psia)
1,100 to 19,800	Pressure Vacuum Relief Valve, Or Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vacuum Relief Valve, Or Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vessel, Or Vapor Recovery System
>19,800 to 39,600	Pressure Vacuum Relief Valve, Or Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vessel, Or Vapor Recovery System
>39,600	Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vessel, Or Vapor Recovery System

The tanks' design capacities are 1,050,000 and 10,500,000 gallons and storing organic fluid with a TVP less than 11 psia. Therefore, the internal (domed) floating roof design (for tanks S-33-446 & '447) and fixed roof tanks with vapor recovery (for tanks S-33-444-0 and '-445-0) satisfy the requirements of this section.

Section 5.1 of this rule requires Group C vessels (capacity greater than 39,600 gallons) storing liquids with a TVP of greater than 1.5 psia but less than 11 psia to be equipped with a floating roof or have vapor control installed.

Two tanks (S-33-444-0 and '-445-0) are equiped with vapor recovery and two tanks (S-33-446-0 and '-447-0) are internal (domed) floating roof tanks, the requirements of this section are satisfied.

Section 5.1.3 requires all tanks to be leak-free, as defined by Section 3.17 of the rule. The following condition will ensure compliance with this section:

- A leak-free condition is defined as a condition without a gas or liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv as methane, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid of a rate of more than three (3) drops per minute. A reading in excess of 10,000 ppmv as methane above background or a liquid leak of greater than three (3) drops per minute is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623]

Section 5.4.1, the internal floating roof tanks shall be equipped with seals that meet the criteria set forth in Section 5.3 except for complying with the requirement specified in Section 5.3.2.1.3.

Internal floating roof tanks are welded tanks and are equipped with mechanical shoe-type design primary seal. Therefore, the tanks must meet all the specifications listed in Section 5.3.2.1. The following conditions will ensure compliance with this section:

- No gap between the tank shell and the primary seal shall exceed 1-1/2 inches. [District Rule 4623]
- The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623]
- The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623]
- No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623]
- The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623]
- No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623] Y
- The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623]
- The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623]

- There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623]

- The secondary seal shall allow easy insertion of probes of up to 1-1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623]
- The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623]

Section 5.4.3 requires the owner or operator to comply with floating roof landing requirements specified in Section 5.3.1.3. The following condition will ensure compliance with this section:

- The floating roof shall be floating on the surface of the stored liquid at all times (i.e., off the roof leg supports) except during the initial fill until the roof is lifted off the leg supports and when the tank is completely emptied and subsequently refilled. When the roof is resting on the leg supports the processes of filling or emptying and refilling the tank shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five calendar days prior to performing the work. The tank must be in compliance with this rule before it may land the roof on its legs. [District Rule 4623 Section 5.4.3, 40 CFR 60.112b(a)(1)(i) and 63.11087(a)]

Section 5.5.1 requires that all openings in the roof used for sampling and gauging, except pressure-vacuum valves complying with Section 5.2, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained organic vapor from escaping from the liquid contents of the tank. The tank shall be equipped with a cover, seal or lid. The following condition will ensure compliance with this section:

- All openings in the roof used for sampling and gauging, except pressure- vacuum relief valves, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid. The cover seal or lid shall be in a closed position, with no visible gaps and be leak free, except when the device or appurtenance is in use. [District Rule 4623]

Section 5.5.2.1 requires that internal floating roof deck fittings shall meet all the requirements specified in Section 5.5.2.1.1 through 5.5.2.1.6. The following conditions will ensure compliance with this section:

- Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents shall provide a projection below the liquid surface. [District Rule 4623 Section 5.5.2.1.1, 40 CFR 60.112b(a)(1)(iii) and 63.11087(a)]
- Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well

shall be bolted in place except when they are in use. [District Rule 4623 Section 5.5.2.1.2, 40 CFR 60.112b(a)(1)(iv) and 63.11087(a)]

- Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports. [District Rule 4623 Section 5.5.2.1.3, 40 CFR 60.112b(a)(1)(v) and 63.11087(a)]
- Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623 Section 5.5.2.1.4, 40 CFR 60.112b(a)(1)(vi) and 63.11087(a)]
- Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623 Section 5.5.2.1.5, 40 CFR 60.112b(a)(1)(vii)]
- Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623 Section 5.5.2.1.6, 40 CFR 60.112b(a)(1)(viii) and 63.11087(a)]

Sections 5.5.2.3 and 5.5.2.4 list requirements for solid guidepole and slotted guidepole respectively. The following conditions will ensure compliance with this section:

- For solid guidepole, all solid sampling or gauging wells, and similar fixed projections through the floating roof such as anti-rotational pipe shall provide a projection below the liquid surface. [District Rule 4623]
- For solid guidepole, the gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/2 inch. [District Rule 4623]
- For slotted guidepole, all slotted sampling or gauging wells, and similar fixed projections through the floating roof shall provide a projection below the liquid surface. [District Rule 4623]
- For slotted guidepole, gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/8 inch. [District Rule 4623]

Section 5.6 applies to vapor recovery systems. The affected tanks with a fixed roof must have a vapor control system that has a control efficiency of at least 95%. This rule also requires the tank and tank vapor control system to be maintained in a leak-free condition. Leak-free is defined in the rule as no readings on a portable VOC detection device greater than 10,000 ppmv above background and no dripping of organic liquid at a rate of more than 3 drops per minute.

Section 6.1.4 requires the owner or operator shall perform a visually inspections, and conduct actual gap measurements according to the timelines specified in this section. The following conditions will ensure compliance with this section:

- The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623, 40 CFR 60.113b(a)(1) and 63.11092(e)(1)]
- The permittee shall visually inspect, through the manholes, roof hatches, or other opening on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of rule 4623. [District Rule 4623, 40 CFR 60.113b(a)(2) and 63.11092(e)(1)]
- The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. Other than the gap criteria specified by this permit, no holes, tears, or other openings are allowed that would permit the escape of hydrocarbon vapors. Any defects found shall constitute a violation of this Rule 4623. [District Rule 4623]

Section 6.2 requires TVP and API gravity testing of stored organic liquid in uncontrolled fixed roof tanks.

Two tanks (S-33-444-0 & '-445-0) are fixed roof tanks with vapor recovery and two tanks (S-33-446-0 and '-447-0) are internal (domed) floating roof tanks. Therefore, these tanks are not subject to the requirements of this section.

Section 6.3 requires the owner or operator shall retain accurate records required by this rule for a period of five years. Floating roof tanks also are subject to the requirements of Section 6.3.5. The following conditions will ensure compliance with this section:

- The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of Rule 4623, including the following: 1) Date the storage vessel was emptied, date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Observed condition of each component of the control equipment (seals, internal floating roof, and fittings). 4) Measurements of the gaps between the tank shell and primary and secondary seals. 5) Leak free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in parts per million by volume (ppmv). 6) Data, supported by calculations, demonstrating compliance with the requirements specified

in Sections 5.4 and 5.5.2.4.3 of Rule 4623. 7) Nature of defects and any corrective actions or repairs performed on the tank in order to comply with rule 4623 and 40 CFR Part 60 Subpart Kb and the date(s) such actions were taken. [District Rule 4623; 40 CFR 60.115b(a)(2), 60.115b(a)(3), and 63.11094(a)]

- All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4623, and 40 CFR 60.116b(a) [District Rules 2201 and 4623]

Section 6.3.7 requires an operator to maintain records of the external floating roof or internal floating roof landing activities. The following conditions will ensure compliance with this section:

- Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Section 5.3.1.3 and 5.4.3. The records shall include information on the TVP, API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623]

Compliance is expected with this Rule.

Rule 4624 Transfer of Organic Liquid

The purpose of this rule is to limit VOC emissions from the transfer of organic liquids.

Section 5.1 lists the requirements for Class 1 transfer facilities and require the transfer operation not to exceed 0.08 lb of VOC per 1,000 gallon transferred. In addition, the transfer of organic fluid must be routed to either a vapor collection and control system (Section 5.1.2.1); a fixed roof or floating roof container that meets the requirements of Rule 4623 (Sections 5.1.2.2 and 5.1.2.3); a pressure vessel with an APCO-approved vapor control system meeting the requirement specified in Rule 4623; or a closed VOC emissions control system.

The following conditions will be included on the ATC:

- For this Class 1 organic liquid transfer facility, the emission of VOC from the transfer operation shall not exceed 0.08 pounds per 1,000 gallons of organic liquid transferred. [District Rule 4624]

- All unloaded liquids and gases shall be routed to one of the following systems: a vapor collection and control system; a fixed roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); a floating roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a pressure vessel equipped with an APCO-approved vapor recovery system that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a closed VOC emission control system. [District Rule 4624]

Section 5.2 lists requirements for a Class 2 organic liquid transfer facility and is not applicable.

Section 5.3 requires transfer operations utilizing a container that meets the control requirements of Rule 4623 to meet the emission control requirements of Sections 5.1 and 5.2 to comply with leak inspection requirements of Section 5.9. These following conditions will ensure compliance with these sections:

- The operator of an organic liquid transfer facility shall inspect the vapor collection system, the vapor disposal system, and each transfer rack handling organic liquids for leaks during transfer at least once every calendar quarter using the test method prescribed in Section 6.3.8 of Rule 4624. [District Rule 4624]
- A floating roof container that meets the applicable control requirements of Section 5.0 of Rule 4623 (Storage of Organic Liquids) shall be considered not leaking when receiving unloaded liquids for compliance with Rule 4624. [District Rule 4624]
- All equipment that is found leaking shall be repaired or replaced within 72 hours. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624]
- An operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually provided no leaks were found during the inspections required under provisions of Sections 5.9.1 and 5.9.2 of Rule 4624 during five consecutive quarterly inspections. Upon identification of any leak during an annual inspection the frequency shall revert back to quarterly and the operator shall contact the APCO in writing within 14 days. [District Rule 4624]

Section 5.6 requires the transfer rack to be designed, installed, maintained and operated such that there are no leaks and no excess organic liquid drainage at disconnections. The following condition will ensure compliance with this section:

- Maximum liquid spillage for liquids from organic liquid transfer operation shall not exceed 3.2 milliliters/disconnect based on an average from 3 consecutive disconnects. [District Rules 2201 and 4624]

Alon will be required to keep records of the throughputs of materials unloaded (Section 6.1.3) as stated in the following condition:

- Operator shall keep records of the throughputs of materials transferred, the results of any required leak inspections, and the quantity and type of components in service. [District Rules 2201 and 4624]

Compliance testing requirements of **Section 6.2** for Class 1 Organic Liquid Transfer Facilities (applicable to unloading only) are not required if unloaded liquids/gases are sent to a floating roof container that meets the control requirements specified in Rule 4623. Therefore, the requirements of this section do not apply.

Compliance with this rule is expected.

Rule 4801 Sulfur Compounds

Section 3.1 prohibits discharge of sulfur compounds into the atmosphere from any single source operation in excess of 0.2% by volume, calculated as SO_2 (dry basis, 15-minute average). Compliance with BACT and NSPS Subparts J and Ja will ensure emissions significantly below this limit.

40 CFR Part 64 Compliance Assurance Monitoring

The EPA Compliance Assurance Monitoring (CAM) regulations apply if a control device is used to comply with an applicable emission limit (e.g., BACT requirement or an applicable federal, state or local regulation included in a State Implementation Plan), and the potential uncontrolled emissions from the device exceed the Title V "major source" threshold (see 40 CFR Part 64). As demonstrated below, none of the project components are subject to CAM requirements.

Low NOx burners are not considered control devices under the CAM, as they do not destroy or remove air contaminants prior to discharge. Low NOx burners are considered passive control measures that act to prevent pollutants from forming (see 40 CFR §64.1, definition of control device.) As such, CAM does not apply to the operation of the heaters.

The operation of floating roof tanks and fugitive components are exempt from the requirements of CAM on the basis that these emission units do not operate with additional add-on emission control devices (40 CFR 64.2.(a)(2)).

The unloading or loading operations are either uncontrolled or are vented to a vapor recovery system. The vapor recovery system is vented to the refinery fuel gas system, which is a process. Since there is no specific control device associated with the vapor recovery system, CAM does not apply.

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The San Joaquin Valley Air Pollution Control District (District) adopted its Environmental Review Guidelines (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

The County of Kern (County) is the public agency having principal responsibility for approving the Project. As such, the County serves as Lead Agency for the Project. Consistent with CEQA Guidelines §15081, the County prepared an Environmental Impact Report (EIR), which was circulated for public review and comment on May 22, 2014. The public review and comment period for the Lead Agency's EIR closed on July 7, 2014. The District issued comments on the project and makes the following determination.

The District is a Responsible Agency for the project because of its discretionary approval power over the project via its Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review Rule), (CEQA Guidelines §15381). As a Responsible Agency, the District has considered the environmental effects of the stationary source project emissions regulated by the District. Through a combination of project design elements, mitigation measures, compliance with applicable District rules and regulations, and compliance with District air permit conditions, it has been determined that the impact on air quality from stationary source project emissions will be reduced to less than significant. Specifically, the project proponent will implement the following mitigation measures:

1. The project proponent will provide Emissions Reduction Credits (ERCs), as required by District Rule 2201, to reduce onsite rail emissions.

2. The project proponent will enter into a Voluntary Emission Reduction Agreement (VERA) with the District in the amount of $500,000 to fund District emission reduction projects to improve air quality within the District. The District expects additional reductions of approximately 45 tons of NOx, 3 tons of VOC, and 3 tons of PM10.

The District has determined that these mitigation measures satisfy the mitigation measure required in the certified EIR to reduce onsite rail emissions below 2 tons per year for NOx and below 2 tons per year for PM10 through implementation of a VERA with the District.

Furthermore, the District has prepared its own findings, available at the District upon request, for each significant effect identified in the certified EIR for the project and concludes that the identified significant effects are not within the responsibilities and jurisdiction of the District. These significant effects have been or should have been addressed by the public agencies with the respective responsibilities and jurisdiction (CEQA Guidelines §15091 and §15096).

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Since this NSR public noticing period has been completed, issue S-33-8-26 & 23 others and S-3303-1-6 subject to the permit conditions on the attached draft ATCs in **Appendix A**.

X. Billing Information

Permit Number	Fee Schedule	Fee Description	Annual Fee
S-33-8-26	3020-02 H	274 MMBtu/hr	$1030
S-33-9-18	3020-02 H	142.6 MMBtu/hr	$1030
S-33-10-8	3020-02 H	39.6 MMBtu/hr	$1030
S-33-11-13	3020-02 H	25.6 MMBtu/hr	$1030
S-33-12-12	3020-02 H	96.8 MMBtu/hr	$1030
S-33-13-25	3020-02 H	90 MMBtu/hr	$1030
S-33-49-8	3020-02 H	161.4 MMBtu/hr	$1030
S-33-52-18	3020-02 H	88.8 MMBtu/hr	$1030
S-33-56-30	3020-02 H	271.4 MMBtu/hr	$1030
S-33-63-13	3020-01 F	596 electric hp	$607
S-33-112-5	3020-05 G	4,032,000 gallons	$382
S-33-124-10	3020-01 E	249 electric hp	$412
S-33-138-7	3020-05 E	462,000 gallons	$246
S-33-139-5	3020-05 E	462,000 gallons	$246
S-33-349-18	3020-02 H	50 MMBtu/hr	$1030
S-33-372-4	3020-01 D	127 electric hp	$314
S-33-440-0	3020-01 H	2,100 electric hp	$1030
S-33-441-0	3020-02 H	21 MM Btu/hr	$1030
S-33-442-0	3020-02 H	21 MM Btu/hr	$1030
S-33-443-0	3020-02 H	21 MM Btu/hr	$1030
S-33-444-0	3020-05 G	1,050,000 gal.	$382
S-33-445-0	3020-05 G	1,050,000 gal.	$382
S-33-446-0	3020-05 G	10,500,000 gal.	$382
S-33-447-0	3020-05 G	10,500,000 gal.	$382
S-3303-1-6	3020-01 H	1,703 electric hp	$1030

Appendixes

A: Draft ATCs
B: Current PTOs
C: Figures
D: BACT Analysis
E: HRA Summary & AAQA
F: PE1 Calculations with Base Documents References and Sample Calculations
G: PE2 and Sample Calculations
H: Quarterly Net Emissions Change
I: Compliance Certification
J: PSD Calculations
K: Public Comments
L: District's Responses to Public Comments

APPENDIX A
Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-33-8-26 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF CRUDE UNIT #10 INCLUDING 209 MMBTU/HR GAS FIRED HEATER 10-H1 WITH WATER SPRAY NDZZLES FOR FLUE GAS CDOLING AND SELECTIVE CATALYTIC REDUCTION (SCR), 65 MMBTU/HR GAS FIRED HEATER 10-H2, CRUDE TOWER 10-V1, DIESEL/AGO STRIPPER 10-V2A/B, CRUDE OFF GAS COMPRESSOR 10-C2, DESALTER AND MISC. HEAT EXCHANGERS, PUMPS, PIPING, DRUMS, FIN FANS, AND VESSELS - AREA 1: MODIFICATIONS TO ATMOSPHERIC CRUDE TOWER (10-V1), DIESEL STRIPPER TOWER (10-V2A); NEW JET TREATER; NEW CRUDE PRE-FLASH TOWER; ADDITIONAL AND/OR REPLACEMENT EXCHANGERS, FIN FANS, AND PUMPS; AND PIPING MODIFICATIONS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit
5. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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Arnaud Marjollet, Director of Permit Services
S-33-8-26 , Sep 17 2014 4:39PM – RINALDIR : Joint Inspection Required with RINALDIR

6. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

9. Fugitive volatile organic compound (VOC) emissions shall not exceed 8.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Valves and connectors subject to Rule 4455 associated with heat exchangers 10-E34A/B shall also be subject to the requirements of Rule 4455 for any leak in excess of 100 ppmv above background when measured according to Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Permittee shall meet all applicable requirements of NSPS Subparts A, J, and GGGa. [District Rule 4001] Federally Enforceable Through Title V Permit

14. Firing rate of heater 10-H2 shall not exceed 65.0 MMBtu/hr [District Rules 2201& 4306] Federally Enforceable Through Title V Permit

15. Continuous records of heater 10-H2's firing rate, including volumetric fuel consumption rate (corrected for temperature) and hhv of fuel burned shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

16. All sampling connections, open ended valves or lines shall be equipped with two closed valves or be capped with blind flanges or threaded plugs except during actual use [District Rule 4001] Federally Enforceable Through Title V Permit

17. Except during start-up and shutdown, crude unit heater 10-H1 emission rate shall not exceed NOx (as NO2): 0.006 lb/MMBtu or 5 ppmvd @ 3% O2, CO: 270 ppmvd @ 3% O2, and NH3: 10 ppmvd @ 3% O2. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. During start-up and shutdown, crude unit heater 10-H1 emission rate shall not exceed NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, and CO: 270 ppmvd @ 3% O2. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. Crude unit heater 10-H2 emission rate shall not exceed NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, and CO: 290 ppmvd @ 3% O2. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

20. The total duration of start-up time for heater 10-H1 shall not exceed 2.0 hours per day [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. The total duration of shutdown time for heater 10-H1 shall not exceed 2.0 hours per day. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

22. The ammonia (NH3) emissions from heater 10-H1 shall not exceed 10 ppmvd @ 3% O2. [District Rule 4102] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

23. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

24. The permittee shall record the daily startup and shutdown duration times of the heater 10-H1 [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. Source testing to measure NOx and CO emissions from Heater 10-H1 and Heater 10-H2 shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

27. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306 (amended October 16, 2008). [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

28. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

29. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

30. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, 4320 and 4351] Federally Enforceable Through Title V Permit

31. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

32. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

33. Source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

34. A Continuous Emissions Monitoring System shall be in place and operating for heater 10-H1. NOX emissions in ppmv (as NO2 corrected to 3% O2) and O2 concentrations must be recorded continuously. The CEM shall meet the requirements of 40 CFR parts 60 and 75 and shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [District Rules 4305, 4306, 4320, and 1080] Federally Enforceable Through Title V Permit

35. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit

36. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

37. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Source Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

38. Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit

39. Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

40. The owner/operator shall perform a relative accuracy test audit (RATA) as specified by 40 CFR Part 60, Appendix F, 5.11, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit

41. The permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals, data and magnitude of excess emissions, nature and cause of excess emissions (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting shall correspond to the averaging period for each respective emission standard; applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [District Rule 1080] Federally Enforceable Through Title V Permit

42. The stack concentration of NOx (as NO2), CO, and O2 for unit 10-H2 shall be measured at least on a monthly basis using District approved portable analyzers. [District Rules 4305, 4306, and 4320]] Federally Enforceable Through Title V Permit

43. The stack concentration of CO and O2 shall be measured at least on a monthly basis using District approved portable analyzers. At the time of the CO measurement, the stack concentration of NOx shall also be measured; using either the NOx CEM or District approved portable analyzer. If the NOx CEM is used, the O2 measurement from the CEM shall be used for any needed corrections to the NOx measurement, and the CO measurement must be taken in the same area of the stack as the CEM sample. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

44. If the CO concentrations, as measured by the portable analyzer, exceed the allowable emissions rate, the permittee shall notify the District and take corrective action within one (1) hour after detection. If the portable analyzer readings continue to exceed the allowable emissions rate, the permittee shall conduct an emissions test within 60 days, utilizing District-approved test methods, to demonstrate compliance with the applicable emissions limits. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

45. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2, the O2 concentration, and method of NOx measurement (CEM or portable analyzer). The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. These records shall be retained at the facility for a period of no less than 5 years and shall be made available for District inspection upon request. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

46. For crude unit heater 10-H1, the permittee shall monitor and record the stack concentration of ammonia (NH3) at least once during each month in which a source test is not performed. NH3 monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within one day of restarting the unit unless monitoring has been performed within the last month. [District Rule 4102]

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CONDITIONS CONTINUE ON NEXT PAGE

47. Ammonia (NH3) emission readings shall be converted to ppmvd @ 3% O2. [District Rule 4102]

48. The permittee shall maintain records of: (1) the date and time of ammonia (NH3) measurements, (2) the O2 concentration in percent by volume and the measured NH3 concentrations corrected to 3% O2, (3) the method of determining the NH3 emission concentration, and (4) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rule 4102]

49. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rules 2201 and 4351] Federally Enforceable Through Title V Permit

50. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

51. The following conditions must be met for representative unit(s) to be used to test for NOx limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rule 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

52. All units in a group for which representative units are source for NOx emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

53. All units in a group for which representative units are source tested for NOx emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

54. The number of representative units source tested for NOx emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

55. The portable analyzer shall be calibrated prior to each use with a two-point calibration method (zero and span). Calibration shall be performed with certified calibration gases. [District Rule 2520] Federally Enforceable Through Title V Permit

56. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit

57. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520] Federally Enforceable Through Title V Permit

58. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201 and 4301] Federally Enforceable Through Title V Permit

59. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520 and 4301] Federally Enforceable Through Title V Permit

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60. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520] Federally Enforceable Through Title V Permit

61. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520] Federally Enforceable Through Title V Permit

62. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520] Federally Enforceable Through Title V Permit

63. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

64. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 4801] Federally Enforceable Through Title V Permit

65. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rule 4301] Federally Enforceable Through Title V Permit

66. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit

67. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit

68. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

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69. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

70. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

71. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

72. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

73. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

74. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

75. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

76. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit

77. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit

78. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit

79. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit

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80. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

81. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

82. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

83. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

84. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

85. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit

86. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit

87. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit

88. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit

89. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit

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90. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit

91. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

92. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit

93. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit

94. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit

95. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit

96. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit

97. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit

98. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit

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99. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit

100. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit

101. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

102. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4455] Federally Enforceable Through Title V Permit

103. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGGa. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484a. [40 CFR 60.592a(c)] Federally Enforceable Through Title V Permit

104. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and (f) and 40 CFR 60.482-2a(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 2,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2a(a) and (b)] Federally Enforceable Through Title V Permit

105. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)] Federally Enforceable Through Title V Permit

106. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)] Federally Enforceable Through Title V Permit

107. Any PLLS that is designated, as described in 40 CFR 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e)] Federally Enforceable Through Title V Permit

108. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)] Federally Enforceable Through Title V Permit

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109. Any pump in PLLS that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(d)(4) through (6) if: 1). The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2a(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)] Federally Enforceable Through Title V Permit

110. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482a-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)] Federally Enforceable Through Title V Permit

111. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(a)] Federally Enforceable Through Title V Permit

112. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9a. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(b)] Federally Enforceable Through Title V Permit

113. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4a(c)] Federally Enforceable Through Title V Permit

114. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4a(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9a. [40 CFR 60.482-4a(d)] Federally Enforceable Through Title V Permit

115. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1), (2), (3), and (4). [40 CFR 60.482-5a(a), (b), and (c)] Federally Enforceable Through Title V Permit

116. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1a(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6a(a) and (c)] Federally Enforeeable Through Title V Permit

117. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6a(b)] Federally Enforceable Through Title V Permit

118. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)] Federally Enforceable Through Title V Permit

119. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)] Federally Enforceable Through Title V Permit

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120. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c) and (f). A leak is detected if an instrument reading of 500 ppm or greater is measured. [40 CFR 60.482-7a(a) and (b] Federally Enforceable Through Title V Permit

121. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7a(c)] Federally Enforceable Through Title V Permit

122. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)] Federally Enforceable Through Title V Permit

123. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f)] Federally Enforceable Through Title V Permit

124. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7a(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7a(g)] Federally Enforceable Through Title V Permit

125. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 and was constructed on or before January 5, 1981; or has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator. 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7a(h)] Federally Enforceable Through Title V Permit

126. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a as an alternative to the requirements in 40 CFR 60.482-7a. [40 CFR 60.592a(b)] Federally Enforceable Through Title V Permit

127. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8a(a) and (b), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

128. When a leak is detected in pumps and valves in heavy liquid service, and pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7a(e). [40 CFR 60.482-8a(c) and (d) , 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

129. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10a(b)] Federally Enforceable Through Title V Permit

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130. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10a(c)] Federally Enforceable Through Title V Permit

131. Flares used to comply with Subpart GGGa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)] Federally Enforceable Through Title V Permit

132. Owners or operators of control devices used to comply with the provisions of Subpart GGGa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)] Federally Enforceable Through Title V Permit

133. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system used to comply with the provisions of Subpart GGGa shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10a(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10a(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10a(f) and (g)] Federally Enforceable Through Title V Permit

134. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10a(h)] Federally Enforceable Through Title V Permit

135. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)] Federally Enforceable Through Title V Permit

136. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)] Federally Enforceable Through Title V Permit

137. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)] Federally Enforceable Through Title V Permit

138. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10a(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10a(l)] [District Rule] Federally Enforceable Through Title V Permit

139. Closed vent systems and control devices used to comply with provisions of Subpart GGGa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)] Federally Enforceable Through Title V Permit

140. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)] Federally Enforceable Through Title V Permit

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141. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring. A calibration drift assessment shall be performed, at a minimum, at the end of each Method 21 monitoring day, per 60.485a(b)(2). [40 CFR 60.485a(b)] Federally Enforceable Through Title V Permit

142. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485a(c)] Federally Enforceable Through Title V Permit

143. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485a(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485a(d)] Federally Enforceable Through Title V Permit

144. The owner or operator shall demonstrate that equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 degrees C (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)] Federally Enforceable Through Title V Permit

145. Samples used in conjunction with 40 CFR 60.485a(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485a(f)] Federally Enforceable Through Title V Permit

146. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485a(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485a(g)] [District Rule] Federally Enforceable Through Title V Permit

147. An owner or operator of more than one affected facility subject to the provisions Subpart GGGa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)] Federally Enforceable Through Title V Permit

148. The owner or operator shall record the following information for each monitoring event required by §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification; (ii) Operator identification; (iii) Equipment identification; (iv) Date of monitoring; (v) Instrument reading. [40 CFR 60.486a(a)(3)] Federally Enforceable Through Title V Permit

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149. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7a(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486a(b)] Federally Enforceable Through Title V Permit

150. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number (except when indications of liquids dripping from a pump are designated as a leak); 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) The maximum instrument reading measured by the methods specified in 40 CFR 60.485a(a) at the time the leak is successfully repaired or determined to be nonrepairable (except when a pump is repaired by eliminating indicates of liquids dripping); 5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2520] Federally Enforceable Through Title V Permit

151. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)] Federally Enforceable Through Title V Permit

152. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGGa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f) shall be signed by the owner or operator, or other mechanism as established with the permitting authority; 3) A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with §60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr; 7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 8) Method 21 monitoring instrument calibration records including (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value per section 10.1 of Method 21; (v) Results of each calibration drift assessment required by §60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 9) The connector monitoring schedule for each process unit as specified in §60.482-11a(b)(3)(v); and 10) Records of each release from a pressure relief device subject to §60.482-4a. [40 CFR 60.486a(e)] Federally Enforceable Through Title V Permit

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153. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connectors stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486a(f)] Federally Enforceable Through Title V Permit

154. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)] Federally Enforceable Through Title V Permit

155. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)] Federally Enforceable Through Title V Permit

156. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480a(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486a(i)] Federally Enforceable Through Title V Permit

157. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486a(j)] Federally Enforceable Through Title V Permit

158. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGGa. [40 CFR 60.486a(k)] Federally Enforceable Through Title V Permit

159. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in §60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in §60.482-11a(d), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)] Federally Enforceable Through Title V Permit

160. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)] Federally Enforceable Through Title V Permit

161. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGGa except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487a(e)] Federally Enforceable Through Title V Permit

162. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)] Federally Enforceable Through Title V Permit

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163. Compressors are exempt from the standards of Subpart GGGa if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment to demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593a(b)] Federally Enforceable Through Title V Permit

164. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3a (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3a(a), (b), (c), (d), (e), and (h). [40 CFR 60.593a(c)] Federally Enforceable Through Title V Permit

165. An owner or operator may use the following provision in addition to 40 CFR 60.485a(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 93, 95, or 96. [40 CFR 60.593a(d)] Federally Enforceable Through Title V Permit

166. Connectors in gas/vapor or light liquid service are exempt from the requirements in 40 CFR 60.482-11a, provided the owner or operator complies with 40 CFR 60.482-8a for all connectors, not just those in heavy liquid service. [40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

167. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)] Federally Enforceable Through Title V Permit

168. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H2S) in excess of 0.1 gr/dscf (230 mg/dscm) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit

169. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit

170. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H2S as measured by the H2S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO2 as measured by the SO2 continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit

171. Operator shall determine compliance with the H2S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit

172. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit

173. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit

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174. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGGa. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit

175. Fuel gas sulfur content shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

176. Permittee shall determine sulfur content of combusted gas annually. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

177. Pursuant to Rule 4320, the operator shall pay an annual emission fee to the District for NOx emissions from combustion unit(s) for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

178. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit

179. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 278 lbs, 2nd quarter - 278 lbs, 3rd quarter - 278 lbs, and 4th quarter - 278 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

180. ERC Certificate Number S-3663-1 (or certificates split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

181. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

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PERMIT NO: S-33-9-18

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF VACUUM UNIT #11 INCLUDING NATURAL GAS/REFINERY GAS FIRED VACUUM CHARGE HEATERS 11H1 AND 11H2 (DE-RATED AT 130 MMBTU/HR TOTAL), VACUUM TOWER, FOUR STAGE VACUUM SYSTEM WITH GAS AMINE CONTACTOR AND MISC. PUMPS, PIPING, EXCHANGERS, FIN FANS, DRUMS, AND VESSELS - AREA 1: PUMP AND PIPING MODIFICATIONS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit
5. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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Arnaud Marjollet, Director of Permit Services
S 33 9-18 : Sep 17 2014 4:38PM – RINALDIR : Joint Inspection Required with RINALDIR

7. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

9. Fugitive volatile organic compound (VOC) emissions shall not exceed 1.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Permittee shall meet all applicable requirements of NSPS Subparts A and, J, and GGG. [District Rule 4401] Federally Enforceable Through Title V Permit

13. Vacuum system exhaust gas shall either be collected, compressed, and added to refinery gas; controlled and combusted in an appropriate firebox or incinerator with at least 90 percent VOC control efficiency; or controlled by an equivalent method approved by the APCO. [District Rule 4453] Federally Enforceable Through Title V Permit

14. Maximum heat input of each de-rated heater, heaters 11H1 and 11H2, shall be less than or equal to 65 million Btu per hour. 4306] Y [District Rules 2201and 4306] Federally Enforceable Through Title V Permit

15. Emissions from the natural gas-fired vacuum heaters 11H1 and 11H2 shall not exceed any of the following limits: 30 ppmvd NOx @ 3% O2 or 0.036 lb-NOx/MMBtu, , 0.0076 lb-PM10/MMBtu, 225 ppmvd CO @ 3% O2 or 0.116 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

16. All sampling connections, open ended valves or lines shall be equipped with two closed valves or be capped with blind flanges or threaded plugs except during actual use [District Rule 4001] Federally Enforceable Through Title V Permit

17. Continuous records of each heaters (heater 11H1 and 11H2) firing rate, including volumetric fuel consumption rate (corrected for temperature) and hhv of fuel burned shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520] Federally Enforceable Through Title V Permit

19. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201 and 4301] Federally Enforceable Through Title V Permit

20. Source testing to measure NOx and CO emissions from heaters 11H1 and 11H2 while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306 (amended October 16, 2008). [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

24. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

26. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 1081, 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

27. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

29. Source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

30. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(amended December 16,1993). [District Rule 1081] Federally Enforceable Through Title V Permit

31. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

32. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

33. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2, the O2 concentration, and method of NOx measurement (CEM or portable analyzer). The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. These records shall be retained at the facility for a period of no less than 5 years and shall be made available for District inspection upon request. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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34. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

35. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

36. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520 and 4301] Federally Enforceable Through Title V Permit

37. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520] Federally Enforceable Through Title V Permit

38. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520] Federally Enforceable Through Title V Permit

39. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520] Federally Enforceable Through Title V Permit

40. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

41. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 4801] Federally Enforceable Through Title V Permit

42. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rule 4301] Federally Enforceable Through Title V Permit

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43. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit

44. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit

45. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

46. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

47. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

48. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

49. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

50. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

51. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

52. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

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53. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit

54. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit

55. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit

56. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit

57. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

58. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455]

59. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

60. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

61. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

62. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

63. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit

64. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit

65. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit

66. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit

67. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit

68. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

69. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit

70. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit

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71. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit

72. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit

73. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit

74. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit

75. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit

76. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit

77. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit

78. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

79. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4455] Federally Enforceable Through Title V Permit

80. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGG. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484. [40 CFR 60.592(c)] Federally Enforceable Through Title V Permit

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81. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-2(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 10,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2(a) and (b)] Federally Enforceable Through Title V Permit

82. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2(c)] Federally Enforceable Through Title V Permit

83. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2(a) provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met. [40 CFR 60.482(d)] Federally Enforceable Through Title V Permit

84. Any PLLS that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2(e)(1), (2), and (3). [40 CFR 60.482-2(e)] Federally Enforceable Through Title V Permit

85. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from the requirements of 40 CFR 60.482-2(a) through (e). [40 CFR 60.482-2(f)] Federally Enforceable Through Title V Permit

86. Any pump in PLLS that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2(a) and 40 CFR 60.482-2(d)(4) through (6) if: 1). The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. [40 CFR 60.482-2(g)] Federally Enforceable Through Title V Permit

87. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2(h)] Federally Enforceable Through Title V Permit

88. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(a)] Federally Enforceable Through Title V Permit

89. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(b)] Federally Enforceable Through Title V Permit

90. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempted from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)] Federally Enforceable Through Title V Permit

91. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. [40 CFR 60.482-4(d)] Federally Enforceable Through Title V Permit

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92. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5(b)(1), (2), (3), and (4). [40 CFR 60.482-5(a), (b), and (c)] Federally Enforceable Through Title V Permit

93. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6(a) and (c)] Federally Enforceable Through Title V Permit

94. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6(b)] Federally Enforceable Through Title V Permit

95. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6(a), (b) and (c). [40 CFR 60.482-6(d)] Federally Enforceable Through Title V Permit

96. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6(a) through (c) are exempt from the requirements of 40 CFR 60.482-6(a) through (c). [40 CFR 60.482-6(e)] Federally Enforceable Through Title V Permit

97. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with 40 CFR 60.482-7(b) through (e), except as provided in 40 CFR 60.482-7(f), (g), and (h), 40 CFR 60.483-1, 40 CFR 60.483-2, and 40 CFR 60.482-1(c). A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-7(a) and (b)] Federally Enforceable Through Title V Permit

98. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7(c)] Federally Enforceable Through Title V Permit

99. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7(d) and (e)] Federally Enforceable Through Title V Permit

100. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7(a) if the valve meets the requirements specified in 40 CFR 60.482-7(f)(1), (2), and (3). [40 CFR 60.482-7(f)] Federally Enforceable Through Title V Permit

101. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7(g)] Federally Enforceable Through Title V Permit

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102. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7(h)] Federally Enforceable Through Title V Permit

103. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1 and 60.483-2. [40 CFR 60.592(b)] Federally Enforceable Through Title V Permit

104. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and shall comply with the requirements of 40 CFR 60.482-8(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8(a) and (b)] Federally Enforceable Through Title V Permit

105. When a leak is detected in pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7(e). [40 CFR 60.482-8(c) and (d)] Federally Enforceable Through Title V Permit

106. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)] Federally Enforceable Through Title V Permit

107. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10(c)] Federally Enforceable Through Title V Permit

108. Flares used to comply with Subpart GGG shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10(d)] Federally Enforceable Through Title V Permit

109. Owners or operators of control devices used to comply with the provisions of Subpart GGG shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10(e)] Federally Enforceable Through Title V Permit

110. Except as provided in 40 CFR 60.482-10(i) through (k), each closed vent system used to comply with the provisions of Subpart GGG shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10(f) and (g)] Federally Enforceable Through Title V Permit

111. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10(h)] Federally Enforceable Through Title V Permit

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112. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2). [40 CFR 60.482-10(i)] Federally Enforceable Through Title V Permit

113. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10 (j)(1) and (j)(2). [40 CFR 60.482-10(j)] Federally Enforceable Through Title V Permit

114. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(k)(1) through (k)(3). [40 CFR 60.482-10(k)] Federally Enforceable Through Title V Permit

115. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c); 4) For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l)] Federally Enforceable Through Title V Permit

116. Closed vent systems and control devices used to comply with provisions Subpart GGG shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)] Federally Enforceable Through Title V Permit

117. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). [40 CFR 60.485(a)] Federally Enforceable Through Title V Permit

118. The owner or operator shall determine compliance with the standards in 40 CFR 60.482, 60.483, and 60.484 as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [40 CFR 60.485(b)] Federally Enforceable Through Title V Permit

119. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows: 1) The requirements of 40 CFR 60.485(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485(c)] Federally Enforceable Through Title V Permit

120. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485(d)] Federally Enforceable Through Title V Permit

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121. The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 degrees C (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485(e)] Federally Enforceable Through Title V Permit

122. Samples used in conjunction with 40 CFR 60.485(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485(f)] Federally Enforceable Through Title V Permit

123. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485(g)] Federally Enforceable Through Title V Permit

124. An owner or operator of more than one affected facility subject to the provisions Subpart GGG may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)] Federally Enforceable Through Title V Permit

125. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486(b)] Federally Enforceable Through Title V Permit

126. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number; 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) ``Above 10,000" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm; 5) ``Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486(c) and District Rule 2520] Federally Enforceable Through Title V Permit

127. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5. [40 CFR 60.486(d)] Federally Enforceable Through Title V Permit

128. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGG; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with ⊥ 60.482-4; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i), ⊥ 60.482-4, and 60.482-7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; and 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)] Federally Enforceable Through Title V Permit

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129. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486(f)] Federally Enforceable Through Title V Permit

130. The following information shall be recorded for valves complying with 40 CFR 60.483-2: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)] Federally Enforceable Through Title V Permit

131. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486(h)] Federally Enforceable Through Title V Permit

132. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486(i)] Federally Enforceable Through Title V Permit

133. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486(j)] Federally Enforceable Through Title V Permit

134. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGG. [District 40 CFR 60.486(k)] Federally Enforceable Through Title V Permit

135. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7(b) or 40 CFR 60.483-2, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487 (a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487(c)] Federally Enforceable Through Title V Permit

136. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1 and 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487(d)] Federally Enforceable Through Title V Permit

137. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGG except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487(e)] Federally Enforceable Through Title V Permit

138. The semiannual reporting requirements of 40 CFR 60.487(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487(f)] Federally Enforceable Through Title V Permit

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139. Compressors are exempt from the standards of Subpart GGG if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593(b)] Federally Enforceable Through Title V Permit

140. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h). [40 CFR 60.593(c)] Federally Enforceable Through Title V Permit

141. An owner or operator may use the following provision in addition to 40 CFR 60.485(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 95, or 96. [40 CFR 60.593(d)] Federally Enforceable Through Title V Permit

142. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5). [40 CFR 60.482-1(d)] Federally Enforceable Through Title V Permit

143. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGG. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit

144. Fuel gas sulfur content shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

145. Permittee shall determine sulfur content of combusted gas annually. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

146. Pursuant to Rule 4320, the operator shall pay an annual emission fee to the District for NOx emissions from combustion unit(s) for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

147. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit

148. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-33-10-8 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF GAS PLANT #10 INCLUDING (UNIT 12) DEBUTANIZER 12-V1, NAPHTHA SPLITTER 12-V4, DEPROPANIZER 15-V1, AND MISC. PUMPS, PIPING, EXCHANGERS, FIN FANS, DRUMS, AND VESSELS - AREA 1: ADDITIONAL HEAT EXCHANGERS; PIPING, EXCHANGER MODIFICATIONS; AND PUMP REPLACEMENTS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit
5. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of Issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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Arnaud Marjollet, Director of Permit Services
S-33-10-8 : Sep 17 2014 4:39PM – RINALDIR : Joint Inspection Required with RINALDIR

7. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]

9. Fugitive volatile organic compound (VOC) emissions shall not exceed 5.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

12. All sampling connections, open ended valves or lines shall be equipped with two closed valves or be capped with blind flanges or threaded plugs except during actual use. [District Rule 4001] Federally Enforceable Through Title V Permit

13. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit

14. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit

15. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

16. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

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17. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

18. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

19. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

20. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

21. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

22. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

23. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit

24. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit

25. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit

26. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit

27. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

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28. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

29. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

30. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

31. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

32. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit

33. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit

34. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit

35. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit

36. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit

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37. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit

38. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

39. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit

40. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit

41. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit

42. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit

43. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit

44. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit

45. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit

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46. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit

47. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit

48. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

49. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4455] Federally Enforceable Through Title V Permit

50. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGGa. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484a. [40 CFR 60.592a(c)] Federally Enforceable Through Title V Permit

51. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and (f) and 40 CFR 60.482-2a(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 2,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2a(a) and (h)] Federally Enforceable Through Title V Permit

52. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)] Federally Enforceable Through Title V Permit

53. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)] Federally Enforceable Through Title V Permit

54. Any PLLS that is designated, as described in 40 CFR 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e)] Federally Enforceable Through Title V Permit

55. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)] Federally Enforceable Through Title V Permit

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56. Any pump in PLLS that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(d)(4) through (6) if: 1). The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2a(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)] Federally Enforceable Through Title V Permit

57. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482a-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)] Federally Enforceable Through Title V Permit

58. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(a)] Federally Enforceable Through Title V Permit

59. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9a. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(b)] Federally Enforceable Through Title V Permit

60. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4a(c)] Federally Enforceable Through Title V Permit

61. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4a(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9a. [40 CFR 60.482-4a(d)]

62. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1), (2), (3), and (4). [40 CFR 60.482-5a(a), (b), and (c)] Federally Enforceable Through Title V Permit

63. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1a(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6a(a) and (c)] Federally Enforceable Through Title V Permit

64. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [District Rule 40 CFR 60.482-6a(b)] Federally Enforceable Through Title V Permit

65. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)] Federally Enforceable Through Title V Permit

66. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)] Federally Enforceable Through Title V Permit

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67. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c) and (f). A leak is detected if an instrument reading of 500 ppm or greater is measured. [40 CFR 60.482-7a(a) and (b] Federally Enforceable Through Title V Permit

68. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7a(c)] Federally Enforceable Through Title V Permit

69. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)] Federally Enforceable Through Title V Permit

70. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f)] Federally Enforceable Through Title V Permit

71. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7a(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7a(g)] Federally Enforceable Through Title V Permit

72. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 and was constructed on or before January 5, 1981; or has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator. 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7a(h)] Federally Enforceable Through Title V Permit

73. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a as an alternative to the requirements in 40 CFR 60.482-7a. [40 CFR 60.592a(b)] Federally Enforceable Through Title V Permit

74. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8a(a) and (b), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

75. When a leak is detected in pumps and valves in heavy liquid service, and pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7a(e). [40 CFR 60.482-8a(c) and (d) , 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

76. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10a(b)] Federally Enforceable Through Title V Permit

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77. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10a(c)] Federally Enforceable Through Title V Permit

78. Flares used to comply with Subpart GGGa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)] Federally Enforceable Through Title V Permit

79. Owners or operators of control devices used to comply with the provisions of Subpart GGGa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)] Federally Enforceable Through Title V Permit

80. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system used to comply with the provisions of Subpart GGGa shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10a(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10a(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10a(f) and (g)] Federally Enforceable Through Title V Permit

81. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10a(h)] Federally Enforceable Through Title V Permit

82. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)] Federally Enforceable Through Title V Permit

83. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)] Federally Enforceable Through Title V Permit

84. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)] Federally Enforceable Through Title V Permit

85. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10a(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10a(l)] Federally Enforceable Through Title V Permit

86. Closed vent systems and control devices used to comply with provisions of Subpart GGGa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)] Federally Enforceable Through Title V Permit

87. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)] Federally Enforceable Through Title V Permit

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88. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring. A calibration drift assessment shall be performed, at a minimum, at the end of each Method 21 monitoring day, per 60.485a(b)(2). [40 CFR 60.485a(b)] Federally Enforceable Through Title V Permit

89. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485a(c)] Federally Enforceable Through Title V Permit

90. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485a(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485a(d)] Federally Enforceable Through Title V Permit

91. The owner or operator shall demonstrate that equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 degrees C (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)] Federally Enforceable Through Title V Permit

92. Samples used in conjunction with 40 CFR 60.485a(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485a(f)] Federally Enforceable Through Title V Permit

93. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485a(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485a(g)] Federally Enforceable Through Title V Permit

94. An owner or operator of more than one affected facility subject to the provisions Subpart GGGa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)] Federally Enforceable Through Title V Permit

95. The owner or operator shall record the following information for each monitoring event required by §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification; (ii) Operator identification; (iii) Equipment identification; (iv) Date of monitoring; (v) Instrument reading. [40 CFR 60.486a(a)(3)] Federally Enforceable Through Title V Permit

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96. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7a(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486a(b)] Federally Enforceable Through Title V Permit

97. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number (except when indications of liquids dripping from a pump are designated as a leak); 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) The maximum instrument reading measured by the methods specified in 40 CFR 60.485a(a) at the time the leak is successfully repaired or determined to be nonrepairable (except when a pump is repaired by eliminating indicates of liquids dripping); 5) ``Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2520] Federally Enforceable Through Title V Permit

98. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)] Federally Enforceable Through Title V Permit

99. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGGa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f) shall be signed by the owner or operator, or other mechanism as established with the permitting authority; 3) A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with §60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr; 7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 8) Method 21 monitoring instrument calibration records including (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value per section 10.1 of Method 21; (v) Results of each calibration drift assessment required by §60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 9) The connector monitoring schedule for each process unit as specified in §60.482-11a(b)(3)(v); and 10) Records of each release from a pressure relief device subject to §60.482-4a. [40 CFR 60.486a(e)] Federally Enforceable Through Title V Permit

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100. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connectors stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486a(f)] Federally Enforceable Through Title V Permit

101. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)] Federally Enforceable Through Title V Permit

102. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)] Federally Enforceable Through Title V Permit

103. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480a(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486a(i)] Federally Enforceable Through Title V Permit

104. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486a(j)] Federally Enforceable Through Title V Permit

105. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGGa. [40 CFR 60.486a(k)] Federally Enforceable Through Title V Permit

106. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in §60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in §60.482-11a(d), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)] Federally Enforceable Through Title V Permit

107. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)] Federally Enforceable Through Title V Permit

108. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGGa except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487a(e)] Federally Enforceable Through Title V Permit

109. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)] Federally Enforceable Through Title V Permit

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110. Compressors are exempt from the standards of Subpart GGGa if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment to demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593a(b)] Federally Enforceable Through Title V Permit

111. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3a (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3a(a), (b), (c), (d), (e), and (h). [40 CFR 60.593a(c)] Federally Enforceable Through Title V Permit

112. An owner or operator may use the following provision in addition to 40 CFR 60.485a(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 93, 95, or 96. [40 CFR 60.593a(d)] Federally Enforceable Through Title V Permit

113. Connectors in gas/vapor or light liquid service are exempt from the requirements in 40 CFR 60.482-11a, provided the owner or operator complies with 40 CFR 60.482-8a for all connectors, not just those in heavy liquid service. [40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

114. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)] Federally Enforceable Through Title V Permit

115. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-33-11-13 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF HYDROTREATER UNIT #8 INCLUDING 12.8 MMBTU/HR GAS-FIRED CHARGE HEATER (8-H1) WITH JOHN ZINK COOLSTAR LOW NOX BURNER, REACTOR (8-R1), SEPARATOR (8-V2), 12.8 MMBTU/HR GAS-FIRED REBOILER HEATER (8-H2) WITH JOHN ZINK COOLSTAR LOW NOX BURNER, STRIPPER (8-V4), STRIPPER RECEIVER (8-V8), MAKE-UP GAS/RECYCLE COMPRESORS (8-C1A/B), AND MISC PUMPS, PIPING, EXCHANGERS, FIN FANS, DRUMS, AND VESSELS - AREA 1: MODIFICATIONS TO NAPHTHA STRIPPER (8-V4), PUMPS, COMPRESSORS,HEAT EXCHANGERS, HEATER 8-H1 CONVECTION SECTION, PIPING, AND FIN FAN COOLERS; NEW PUMPS AND EXCHANGERS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit
5. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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Arnaud Marjollet, Director of Permit Services
S-33-11-13 : Sep 17 2014 4:39PM - RINALDIR : Joint Inspection Required with RINALDIR

6. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

9. Permittee shall meet all applicable requirements of NSPS Subparts A, J, and GGG. [District Rule 4001] Federally Enforceable Through Title V Permit

10. Leaks from valves and connectors associated with hot high-pressure separator (8-D7) and HTU reactor feed/effluent exchangers (8-E1 G/H) that are subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured as required per Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Sour gas shall discharge only to amine treater, sulfur recovery plant or, under breakdown conditions, to the flare, as provided for under Rules 1100 and 4001, Subparts A and J. [District Rules 2201, 1100 and 4001] Federally Enforceable Through Title V Permit

12. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel [District Rule 2520] Federally Enforceable Through Title V Permit

13. {588} Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

14. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rule 4301, 5.2.2] Federally Enforceable Through Title V Permit

15. The operator shall not burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H2S) in excess of 0.10 gr/dscf (230 mg/dscm). [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit

16. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60.105(a)(3)] Federally Enforceable Through Title V Permit

17. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H2S as measured by the H2S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO2 as measured by the SO2 continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit

18. Operator shall determine compliance with the H2S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit

19. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit

20. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit

21. Fugitive volatile organic compound (VOC) emissions shall not exceed 18.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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22. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Except during startup and shutdown, heater 8H1 and 8H2 emission rates shall not exceed any of the following: NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, CO: 400 ppmvd @ 3% O2, VOC: 0.0055 lb/MMBtu or PM10: 0.0076 lb/MMBtu,. [District Rules 2201, 4305, 4306, 4320 and 4351] Federally Enforceable Through Title V Permit

25. Emission rates from each heater (8H1 and 8H2) shall not exceed any of the following: PM10: 2.3 lb/day, SOx (as SO2): 8.8 lb/day, VOC: 1.7 lb/day, NOx (as NO2): 55.3 lb/day or 4,052 lb/year, or CO: 92.2 lb/day or 7,535 lb/year. [District Rules 2201 and 4301] Federally Enforceable Through Title V Permit

26. For heaters 8H1 and 8H2, duration of start-up and shutdown shall not exceed 2 hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 4305,and 4306] Federally Enforceable Through Title V Permit

27. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rules 4305, and 4306] Federally Enforceable Through Title V Permit

28. For each heater, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

29. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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32. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306 (amended October 16, 2008). [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

33. Source testing to measure NOx and CO emissions from Heater 10-H1 and Heater 10-H2 shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

34. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

35. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306 (amended October 16, 2008). [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

36. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

37. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

38. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

39. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

40. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

41. Source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

42. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

43. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6C or ARB Method 100. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

44. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using EPA Method 11, ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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45. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826, D 1945 or EPA Method 15 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2.1, 4306, 6.2.1, 4320 and 4351, 6.2.1] Federally Enforceable Through Title V Permit

46. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit

47. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit

48. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

49. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

50. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

51. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

52. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

53. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

54. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

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55. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

56. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit

57. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit

58. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit

59. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit

60. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

61. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455]

62. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

63. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

64. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

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65. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit

66. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit

67. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit

68. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit

69. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit

70. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit

71. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

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72. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit

73. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit

74. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit

75. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit

76. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit

77. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit

78. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit

79. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit

80. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit

81. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

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82. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4455] Federally Enforceable Through Title V Permit

83. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGG. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484. [40 CFR 60.592(c)] Federally Enforceable Through Title V Permit

84. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-2(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 10,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2(a) and (b)] Federally Enforceable Through Title V Permit

85. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2(c)] Federally Enforceable Through Title V Permit

86. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2(a) provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met. [40 CFR 60.482(d)] Federally Enforceable Through Title V Permit

87. Any PLLS that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2(e)(1), (2), and (3). [40 CFR 60.482-2(e)] Federally Enforceable Through Title V Permit

88. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from the requirements of 40 CFR 60.482-2(a) through (e). [40 CFR 60.482-2(f)] Federally Enforceable Through Title V Permit

89. Any pump in PLLS that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2(a) and 40 CFR 60.482-2(d)(4) through (6) if: 1). The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. [40 CFR 60.482-2(g)] Federally Enforceable Through Title V Permit

90. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2(h)] Federally Enforceable Through Title V Permit

91. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(a)] Federally Enforceable Through Title V Permit

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92. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(b)] Federally Enforceable Through Title V Permit

93. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempted from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)] Federally Enforceable Through Title V Permit

94. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. [40 CFR 60.482-4(d)] Federally Enforceable Through Title V Permit

95. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5(b)(1), (2), (3), and (4). [40 CFR 60.482-5(a), (b), and (c)] Federally Enforceable Through Title V Permit

96. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6(a) and (c)] Federally Enforceable Through Title V Permit

97. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6(b)] Federally Enforceable Through Title V Permit

98. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6(a), (b) and (c). [40 CFR 60.482-6(d)] Federally Enforceable Through Title V Permit

99. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6(a) through (c) are exempt from the requirements of 40 CFR 60.482-6(a) through (c). [40 CFR 60.482-6(e)] Federally Enforceable Through Title V Permit

100. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with 40 CFR 60.482-7(b) through (e), except as provided in 40 CFR 60.482-7(f), (g), and (h), 40 CFR 60.483-1, 40 CFR 60.483-2, and 40 CFR 60.482-1(c). A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-7(a) and (b)] Federally Enforceable Through Title V Permit

101. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7(c)] Federally Enforceable Through Title V Permit

102. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7(d) and (e)] Federally Enforceable Through Title V Permit

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103. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7(a) if the valve meets the requirements specified in 40 CFR 60.482-7(f)(1), (2), and (3). [40 CFR 60.482-7(f)] Federally Enforceable Through Title V Permit

104. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7(g)] Federally Enforceable Through Title V Permit

105. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7(h)] Federally Enforceable Through Title V Permit

106. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1 and 60.483-2. [40 CFR 60.592(b)] Federally Enforceable Through Title V Permit

107. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and shall comply with the requirements of 40 CFR 60.482-8(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8(a) and (b)] Federally Enforceable Through Title V Permit

108. When a leak is detected in pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7(e). [40 CFR 60.482-8(c) and (d)] Federally Enforceable Through Title V Permit

109. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)] Federally Enforceable Through Title V Permit

110. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10(c)] Federally Enforceable Through Title V Permit

111. Flares used to comply with Subpart GGG shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10(d)] Federally Enforceable Through Title V Permit

112. Owners or operators of control devices used to comply with the provisions of Subpart GGG shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10(e)] Federally Enforceable Through Title V Permit

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113. Except as provided in 40 CFR 60.482-10(i) through (k), each closed vent system used to comply with the provisions of Subpart GGG shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10(f) and (g)] Federally Enforceable Through Title V Permit

114. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10(h)] Federally Enforceable Through Title V Permit

115. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2). [40 CFR 60.482-10(i)] Federally Enforceable Through Title V Permit

116. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10 (j)(1) and (j)(2). [40 CFR 60.482-10(j)] Federally Enforceable Through Title V Permit

117. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(k)(1) through (k)(3). [40 CFR 60.482-10(k)] Federally Enforceable Through Title V Permit

118. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c); 4) For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l)] Federally Enforceable Through Title V Permit

119. Closed vent systems and control devices used to comply with provisions Subpart GGG shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)] Federally Enforceable Through Title V Permit

120. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). [40 CFR 60.485(a)] Federally Enforceable Through Title V Permit

121. The owner or operator shall determine compliance with the standards in 40 CFR 60.482, 60.483, and 60.484 as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [40 CFR 60.485(b)] Federally Enforceable Through Title V Permit

122. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows: 1) The requirements of 40 CFR 60.485(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485(c)] Federally Enforceable Through Title V Permit

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123. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485(d)] Federally Enforceable Through Title V Permit

124. The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 degrees C (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485(e)] Federally Enforceable Through Title V Permit

125. Samples used in conjunction with 40 CFR 60.485(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485(f)] Federally Enforceable Through Title V Permit

126. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485(g)] Federally Enforceable Through Title V Permit

127. An owner or operator of more than one affected facility subject to the provisions Subpart GGG may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)] Federally Enforceable Through Title V Permit

128. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486(b)] Federally Enforceable Through Title V Permit

129. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number; 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) ``Above 10,000" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm; 5) ``Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486(c) and District Rule 2520] Federally Enforceable Through Title V Permit

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130. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5. [40 CFR 60.486(d)] Federally Enforceable Through Title V Permit

131. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGG; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with ⊥ 60.482-4; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i), ⊥ 60.482-4, and 60.482-7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; and 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)] Federally Enforceable Through Title V Permit

132. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486(f)] Federally Enforceable Through Title V Permit

133. The following information shall be recorded for valves complying with 40 CFR 60.483-2: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)] Federally Enforceable Through Title V Permit

134. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486(h)] Federally Enforceable Through Title V Permit

135. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486(i)] Federally Enforceable Through Title V Permit

136. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486(j)] Federally Enforceable Through Title V Permit

137. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGG. [District 40 CFR 60.486(k)] Federally Enforceable Through Title V Permit

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138. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7(b) or 40 CFR 60.483-2, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487 (a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487(c)] Federally Enforceable Through Title V Permit

139. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1 and 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487(d)] Federally Enforceable Through Title V Permit

140. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGG except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487(e)] Federally Enforceable Through Title V Permit

141. The semiannual reporting requirements of 40 CFR 60.487(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487(f)] Federally Enforceable Through Title V Permit

142. Compressors are exempt from the standards of Subpart GGG if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593(b)] Federally Enforceable Through Title V Permit

143. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h). [40 CFR 60.593(c)] Federally Enforceable Through Title V Permit

144. An owner or operator may use the following provision in addition to 40 CFR 60.485(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 95, or 96. [40 CFR 60.593(d)] Federally Enforceable Through Title V Permit

145. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5). [40 CFR 60.482-1(d)] Federally Enforceable Through Title V Permit

146. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGG. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit

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147. Fuel gas sulfur content shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

148. Permittee shall determine sulfur content of combusted gas annually. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

149. Pursuant to Rule 4320, the operator shall pay an annual emission fee to the District for NOx emissions from combustion unit(s) for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

150. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit

151. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-33-12-12 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF CATALYTIC REFORMER #9 INCLUDING 4 REACTORS 9-R1, R2, R3 AND R4, 4 REFINERY FUEL GAS-FIRED HEATERS 38.5 MMBTU/HR 9-H1 AND 30.8 MMBTU/HR 9-H2 EACH WITH A CALLIDUS LOW NOX BURNER, 18.2 MMBTU/HR 9-H3 AND 9.2 MMBTU/HR 9-H4 EACH WITH A JOHN ZINK COOLSTAR LOW NOX BURNER, SEPARATOR 9-V3, DEPROPANIZER 9-V4, 10.1 MMBTU/HR REBOILER HEATER 9-H5 WITH A JOHN ZINK COOLSTAR LOW NOX BURNER, RECYCLE COMPRESSOR 9-C1, AND MISC PUMPS, PIPING, EXCHANGERS, FIN FANS, DRUMS, & VESSELS - AREA 1: MODIFICATIONS TO PIPING, PUMPS, HEAT EXCHANGERS, AND FIN FAN COOLERS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit
5. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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Arnaud Marjollet, Director of Permit Services
S-33-12-12 : Sep 17 2014 4:40PM – RINALDIR : Joint Inspection Required with RINALDIR

6. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

9. Fugitive volatile organic compound (VOC) emissions shall not exceed 26.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Leaks from valves, connectors, and other components (except pumps and compressor seals) associated with piping modifications to route hydrogen rich stream from Catalytic Reforming Unit # 9-D8 to CD Hydro Tech and subject to the provisions of Rule 4455 shall be defined as a VOC reading in excess of 100 ppmv above background on a portable hydrocarbon detection instrument calibrated with methane per EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Permittee shall meet all applicable requirements of NSPS Subparts A and J. [District Rule 4001] Federally Enforceable Through Title V Permit

14. Except during startup and shutdown, heaters 9H1 - 9H4 (common stack) and 9H5 emission rates shall not exceed any of the following: NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, CO: 400 ppmvd @ 3% O2, VOC: 0.0055 lb/MMBtu, or PM10: 0.0076 lb/MMBtu. [District Rules 2201, 4305, 4306, 4320 and 4351] Federally Enforceable Through Title V Permit

15. Emission rates from heater 9H1 shall not exceed any of the following: PM10: 7.0 lb/day, SOx (as SO2): 26.4 lb/day, VOC: 1.7 lb/day, NOx (as NO2): 166.3 lb/day or 12,155 lb/year, or CO: 277.2 lb/day or 22,664 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Emission rates from heater 9H2 shall not exceed any of the following: PM10: 5.6 lb/day, SOx (as SO2): 21.1 lb/day, VOC: 4.1 lb/day, NOx (as NO2): 133.1 lb/day or 9,709 lb/year, or CO: 221.8 lb/day or 18,131 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Emission rates from heater 9H3 shall not exceed any of the following: PM10: 3.3 lb/day, SOx (as SO2): 12.5 lb/day, VOC: 2.4 lb/day, NOx (as NO2): 78.6 lb/day or 5,731 lb/year, or CO: 131.0 lb/day or 10,714 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Emission rates from heater 9H4 shall not exceed any of the following: PM10: 1.7 lb/day, SOx (as SO2): 6.3 lb/day, VOC: 1.2 lb/day, NOx (as NO2): 39.7 lb/day or 2,884 lb/year, or CO: 66.2 lb/day or 5,416 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Emission rates from heater 9H5 shall not exceed any of the following: PM10: 1.8 lb/day, SOx (as SO2): 6.9 lb/day, VOC: 1.3 lb/day, NOx (as NO2): 43.6 lb/day or 3,176 lb/year, or CO: 72.7 lb/day or 5,946 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

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20. For heaters 9H1, 9H2, 9H3, 9H4, & 9H5, compliance with annual CO emission rate shall be determined by using CO emission concentrations obtained during monthly monitoring as required in this permit, fuel use, fuel heating value, and stack gas flow rate. Records of calculated CO emissions shall be maintained for a period of five years and made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For heaters 9H1, 9H2, 9H3, 9H4, & 9H5, duration of start-up and shutdown shall not exceed 2 hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

22. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rules 2080, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

23. For each heater, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

24. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

26. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2520, 9.4.2, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

27. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, 4320 and 4351] Federally Enforceable Through Title V Permit

28. Source testing to measure natural gas-combustion NOx and CO emissions from each heater shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

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29. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

30. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

31. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, 4320 and 4351] Federally Enforceable Through Title V Permit

32. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, 4320 and 4351] Federally Enforceable Through Title V Permit

33. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

34. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

35. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

36. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(Last Amended December 16,1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit

37. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. {588} Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

39. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

40. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6C or ARB Method 100. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

41. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using EPA Method 11 or EPA Method 15, ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

42. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2, 4305, 6.2.1, 4320 and 4351, 6.2.1] Federally Enforceable Through Title V Permit

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43. Nitrogen oxide (NOx) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rules 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

44. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rule 4301, 5.2.2] Federally Enforceable Through Title V Permit

45. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit

46. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit

47. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

48. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

49. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

50. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

51. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

52. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

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53. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

54. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

55. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit

56. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit

57. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit

58. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit

59. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

60. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

61. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

62. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

63. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

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64. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit

65. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit

66. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit

67. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit

68. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit

69. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit

70. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

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71. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit

72. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit

73. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit

74. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit

75. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit

76. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit

77. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit

78. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit

79. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit

80. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

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81. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4454, 4.0] Federally Enforceable Through Title V Permit

82. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H2S) in excess of 0.1 gr/dscf (230 mg/dscm). [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit

83. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit

84. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H2S as measured by the H2S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO2 as measured by the SO2 continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit

85. Operator shall determine compliance with the H2S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit

86. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit

87. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit

88. {4194} Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

89. Fuel gas sulfur content shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

90. Permittee shall determine sulfur content of combusted gas annually. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

91. Pursuant to Rule 4320, the operator shall pay an annual emission fee to the District for NOx emissions from combustion unit(s) for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

92. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit

93. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

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PERMIT NO: S-33-13-25 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF MILD HYDROCRACKER #14 INCLUDING 50 MMBTU/HR GAS FIRED CHARGE HEATER 14-H1, 40 MMBTU/HR GAS FIRED FEED HEATER 14-H2, REACTOR 14-R1, 4 SEPARATORS 14-D4, 14-D5, 14-D7, 14-D14, FRACTIONATOR 14-V1, DIESEL STRIPPER 14-V4, MAKE-UP/RECYCLE GAS COMPRESSOR 14-C1A/B, HYDROGEN MAKE-UP COMPRESSOR 14-C2, AND MISC PUMPS, HEAT EXCHANGERS, PIPING, FIN FANS, DRUMS, AND VESSELS - AREA 1: ADD PUMPS, MODIFY EXISTING PUMPS AND 14-H1 HEATER TUBING; ADD SALT DRIER AND WATER COALESCER TO THE KEROSENE PRODUCT STREAM; INSTALL TWO NEW FRACTIONATOR OVERHEAD COMPRESSORS (14-C4A/B) AND ANCILLARY EQUIPMENT IN PARALLEL WITH EXISTING FRACTIONATOR OVERHEAD COMPRESSORS (14-C3A/B), UPGRADE RECYCLE GAS SCRUBBER AND REPLACE AMINE FEED PUMPS; REPLACE HIGH PRESSURE SEPARATOR (14-D4); EXCHANGER UPGRADES; PIPING MODIFICATIONS; MODIFY OR REPLACE RECYCLE GAS SCRUBBER (14-V3).

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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Arnaud Marjollet, Director of Permit Services
S-33-13-25 : Sep 17 2014 4:40PM – RINALDIR : Joint Inspection Required with RINALDIR

4. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit

5. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

6. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]

9. Fugitive volatile organic compound (VOC) emissions shall not exceed 13.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Emission rate from heater 14H1 shall not exceed any of the following PM10: 0.075 lb/MMBtu, NOx (as NO2): 30 ppmv @ 3% O2, VOC: 0.005 lb/MMBtu, or CO: 240 ppmv @ 3% O2. [District Rules 2201, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

13. Emission rate from heater 14H2 shall not exceed any of the following VOC: 0.0028 lb/MMBtu; NOx (as NO2): 0.036 lb/MMBtu and CO: 100 ppmv @ 3% O2. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Permittee shall comply with applicable requirements of Rule 4001 NSPS Subparts A, J, and GGGa. [District Rule 4001] Federally Enforceable Through Title V Permit

15. Sour gas shall discharge only to amine treater or sulfur recovery plant, except that sour gas may be discharged to the flare under emergency or upset conditions as provided under Rules 1100 (Breakdown Conditions) and 4001 (NSPS Subparts A and J). [District Rule 2201] Federally Enforceable Through Title V Permit

16. Heater 14-H1 shall be equipped with eight (8) - 6.25 MMBtu/hr John Zink COOLstar-12M Low NOx burners or equivalent burners. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Heater 14-H2 shall be equipped with four (4) - 10 MMBtu/hr rated John Zink COOLstar-15M Low NOx burners or equivalent burners. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rule 4301] Federally Enforceable Through Title V Permit

19. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201 and 4301]

20. The operator shall not burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H2S) in excess of 0.10 gr/dscf (230 mg/dscm) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit

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21. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit

22. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H2S as measured by the H2S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO2 as measured by the SO2 continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit

23. Operator shall determine compliance with the H2S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit

24. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit

25. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit

26. The permittee shall monitor and record heaters 14H1's and 14H2's stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

27. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

29. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

30. The portable analyzer shall be calibrated prior to each use with a two-point calibration method (zero and span). Calibration shall be performed with certified calibration gases. [District Rule 2520] Federally Enforceable Through Title V Permit

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31. Source testing for NOx and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

32. Source testing for NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

33. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

34. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

35. {109} Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]

36. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

37. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306 (amended October 16, 2008). [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

38. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

39. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

40. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

41. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

42. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

43. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit

44. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

45. The following conditions must be met for representative unit(s) to be used to test for NOx limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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46. All units in a group for which representative units are source for NOx emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

47. All units in a group for which representative units are source tested for NOx emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

48. The number of representative units source tested for NOx emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

49. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(amended December 16,1993). [District Rule 1081] Federally Enforceable Through Title V Permit

50. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520] Federally Enforceable Through Title V Permit

51. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520 and District Rule 4301] Federally Enforceable Through Title V Permit

52. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520] Federally Enforceable Through Title V Permit

53. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6C or ARB Method 100. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

54. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520] Federally Enforceable Through Title V Permit

55. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

56. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 4801] Federally Enforceable Through Title V Permit

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57. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit

58. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit

59. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

60. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

61. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

62. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

63. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

64. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

65. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

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66. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit

67. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit

68. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit

69. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit

70. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

71. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455]

72. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

73. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

74. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

75. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit

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76. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit

77. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit

78. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit

79. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit

80. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit

81. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

82. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit

83. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit

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84. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit

85. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit

86. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit

87. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit

88. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit

89. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit

90. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit

91. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

92. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4455] Federally Enforceable Through Title V Permit

93. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGGa. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484a. [40 CFR 60.592a(c)] Federally Enforceable Through Title V Permit

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94. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and (f) and 40 CFR 60.482-2a(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 2,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2a(a) and (b)] Federally Enforceable Through Title V Permit

95. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)] Federally Enforceable Through Title V Permit

96. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)] Federally Enforceable Through Title V Permit

97. Any PLLS that is designated, as described in 40 CFR 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e)] Federally Enforceable Through Title V Permit

98. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)] Federally Enforceable Through Title V Permit

99. Any pump in PLLS that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(d)(4) through (6) if: 1). The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2a(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)] Federally Enforceable Through Title V Permit

100. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482a-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)] Federally Enforceable Through Title V Permit

101. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(a)] Federally Enforceable Through Title V Permit

102. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9a. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(b)] Federally Enforceable Through Title V Permit

103. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4a(c)] Federally Enforceable Through Title V Permit

104. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4a(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9a. [40 CFR 60.482-4a(d)] Federally Enforceable Through Title V Permit

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105. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1), (2), (3), and (4). [40 CFR 60.482-5a(a), (b), and (c)] Federally Enforceable Through Title V Permit

106. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1a(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6a(a) and (c)] Federally Enforceable Through Title V Permit

107. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6a(b)] Federally Enforceable Through Title V Permit

108. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)] Federally Enforceable Through Title V Permit

109. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)] Federally Enforceable Through Title V Permit

110. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c) and (f). A leak is detected if an instrument reading of 500 ppm or greater is measured. [40 CFR 60.482-7a(a) and (b] Federally Enforceable Through Title V Permit

111. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7a(c)] Federally Enforceable Through Title V Permit

112. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)] Federally Enforceable Through Title V Permit

113. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f)] Federally Enforceable Through Title V Permit

114. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7a(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7a(g)] Federally Enforceable Through Title V Permit

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115. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 and was constructed on or before January 5, 1981; or has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator. 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7a(h)] Federally Enforceable Through Title V Permit

116. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a as an alternative to the requirements in 40 CFR 60.482-7a. [40 CFR 60.592a(b)] Federally Enforceable Through Title V Permit

117. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8a(a) and (b), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

118. When a leak is detected in pumps and valves in heavy liquid service, and pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7a(e). [40 CFR 60.482-8a(c) and (d) , 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

119. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10a(b)] Federally Enforceable Through Title V Permit

120. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10a(c)] Federally Enforceable Through Title V Permit

121. Flares used to comply with Subpart GGGa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)] Federally Enforceable Through Title V Permit

122. Owners or operators of control devices used to comply with the provisions of Subpart GGGa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)] Federally Enforceable Through Title V Permit

123. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system used to comply with the provisions of Subpart GGGa shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10a(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10a(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10a(f) and (g)] Federally Enforceable Through Title V Permit

124. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10a(h)] Federally Enforceable Through Title V Permit

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125. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)] Federally Enforceable Through Title V Permit

126. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)] Federally Enforceable Through Title V Permit

127. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)] Federally Enforceable Through Title V Permit

128. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10a(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10a(l)] Federally Enforceable Through Title V Permit

129. Closed vent systems and control devices used to comply with provisions of Subpart GGGa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)] Federally Enforceable Through Title V Permit

130. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)] Federally Enforceable Through Title V Permit

131. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring. A calibration drift assessment shall be performed, at a minimum, at the end of each Method 21 monitoring day, per 60.485a(b)(2). [40 CFR 60.485a(b)] Federally Enforceable Through Title V Permit

132. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485a(c)] Federally Enforceable Through Title V Permit

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133. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485a(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485a(d)] Federally Enforceable Through Title V Permit

134. The owner or operator shall demonstrate that equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 degrees C (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)] Federally Enforceable Through Title V Permit

135. Samples used in conjunction with 40 CFR 60.485a(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485a(f)] Federally Enforceable Through Title V Permit

136. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6C or ARB Method 100. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

137. An owner or operator of more than one affected facility subject to the provisions Subpart GGGa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)] Federally Enforceable Through Title V Permit

138. The owner or operator shall record the following information for each monitoring event required by §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification; (ii) Operator identification; (iii) Equipment identification; (iv) Date of monitoring; (v) Instrument reading. [40 CFR 60.486a(a)(3)] Federally Enforceable Through Title V Permit

139. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7a(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486a(b)] Federally Enforceable Through Title V Permit

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140. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number (except when indications of liquids dripping from a pump are designated as a leak); 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) The maximum instrument reading measured by the methods specified in 40 CFR 60.485a(a) at the time the leak is successfully repaired or determined to be nonrepairable (except when a pump is repaired by eliminating indicates of liquids dripping); 5) ``Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2520] Federally Enforceable Through Title V Permit

141. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)] Federally Enforceable Through Title V Permit

142. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGGa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f) shall be signed by the owner or operator, or other mechanism as established with the permitting authority; 3) A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with §60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr; 7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 8) Method 21 monitoring instrument calibration records including (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value per section 10.1 of Method 21; (v) Results of each calibration drift assessment required by §60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 9) The connector monitoring schedule for each process unit as specified in §60.482-11a(b)(3)(v); and 10) Records of each release from a pressure relief device subject to §60.482-4a. [40 CFR 60.486a(e)] Federally Enforceable Through Title V Permit

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143. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connectors stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486a(f)] Federally Enforceable Through Title V Permit

144. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)] Federally Enforceable Through Title V Permit

145. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)] Federally Enforceable Through Title V Permit

146. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480a(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486a(i)] Federally Enforceable Through Title V Permit

147. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486a(j)] Federally Enforceable Through Title V Permit

148. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGGa. [40 CFR 60.486a(k)] Federally Enforceable Through Title V Permit

149. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in §60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in §60.482-11a(d), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)] Federally Enforceable Through Title V Permit

150. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)] Federally Enforceable Through Title V Permit

151. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGGa except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487a(e)] Federally Enforceable Through Title V Permit

152. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)] Federally Enforceable Through Title V Permit

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153. Compressors are exempt from the standards of Subpart GGGa if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment to demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593a(b)] Federally Enforceable Through Title V Permit

154. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3a (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3a(a), (b), (c), (d), (e), and (h). [40 CFR 60.593a(c)] Federally Enforceable Through Title V Permit

155. An owner or operator may use the following provision in addition to 40 CFR 60.485a(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 93, 95, or 96. [40 CFR 60.593a(d)] Federally Enforceable Through Title V Permit

156. Connectors in gas/vapor or light liquid service are exempt from the requirements in 40 CFR 60.482-11a, provided the owner or operator complies with 40 CFR 60.482-8a for all connectors, not just those in heavy liquid service. [40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit

157. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)] Federally Enforceable Through Title V Permit

158. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGGa. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit

159. Fuel gas sulfur content shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

160. Permittee shall determine sulfur content of combusted gas annually. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

161. Pursuant to Rule 4320, the operator shall pay an annual emission fee to the District for NOx emissions from combustion unit(s) for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

162. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit

163. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 308 lbs, 2nd quarter - 308 lbs, 3rd quarter - 308 lbs, and 4th quarter - 308 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

164. ERC Certificate Number S-3663-1 (or certificates split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

165. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-33-49-8 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 28 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 161.4 MMBTU/HR CRUDE UNIT #11 INCLUDING HEATERS 11-H11, 11-H12, AND 11-H13, AND TOPPING ASSEMBLY - AREA 2: TRANSFER HEATER 11-H11 TO PERMIT S-33-349 AND RENAME THE HEATER 27-H2

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit
5. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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Arnaud Marjollet, Director of Permit Services

S-33-49-8 : Sep 17 2014 4:40PM -- RINALDIR : Joint Inspection Required with RINALDIR

7. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

9. Permittee shall meet all applicable requirements of NSPS Subparts A and J. [NSPS 40 CFR Part 60, Subparts A & J] Federally Enforceable Through Title V Permit

10. Gas plant Heater 11-H13 is in service as part of hydro unit #27 S-33-349 as heater 27H-1. [District Rule 2201] Federally Enforceable Through Title V Permit

11. {588} Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

12. Spent caustics and waste liquids shall be disposed of in a manner preventing the creation of odors. [District Rule 4102]

13. Heat exchangers utilizing cooling water shall be maintained to prevent volatile organic compound emissions from cooling towers. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Heater 11-H12 emission rates shall not exceed NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, or CO: 400 ppmv @ 3% O2. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit

15. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of heater 11-H12. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit

16. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(Last Amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit

17. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

19. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

20. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using EPA Method 11 or EPA Method 15, ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

21. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

22. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2] Federally Enforceable Through Title V Permit

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23. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201and 4455] Federally Enforceable Through Title V Permit

24. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455, 4.1 & 4.2] Federally Enforceable Through Title V Permit

25. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1] Federally Enforceable Through Title V Permit

26. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2] Federally Enforceable Through Title V Permit

27. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455, 5.1.3.1] Federally Enforceable Through Title V Permit

28. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.1] Federally Enforceable Through Title V Permit

29. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.2] Federally Enforceable Through Title V Permit

30. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455, 5.1.3.2.3] Federally Enforceable Through Title V Permit

31. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455, 5.2.1 & 5.2.2] Federally Enforceable Through Title V Permit

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32. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7] Federally Enforceable Through Title V Permit

33. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8] Federally Enforceable Through Title V Permit

34. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 & 5.2.10] Federally Enforceable Through Title V Permit

35. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11] Federally Enforceable Through Title V Permit

36. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12] Federally Enforceable Through Title V Permit

37. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455, 5.2.13] Federally Enforceable Through Title V Permit

38. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1, 5.3.2 & 5.3.3] Federally Enforceable Through Title V Permit

39. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455, 5.3.4] Federally Enforceable Through Title V Permit

40. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455, 5.3.5] Federally Enforceable Through Title V Permit

41. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6] Federally Enforceable Through Title V Permit

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42. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455, 5.3.7] Federally Enforceable Through Title V Permit

43. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1] Federally Enforceable Through Title V Permit

44. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455, 5.4.3 & 5.4.4] Federally Enforceable Through Title V Permit

45. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455, 5.4.5] Federally Enforceable Through Title V Permit

46. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit

47. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455, 6.1.2 & 6.1.4] Federally Enforceable Through Title V Permit

48. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455, 6.2.1] Federally Enforceable Through Title V Permit

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49. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455, 6.2.3] Federally Enforceable Through Title V Permit

50. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455, 6.3.1] Federally Enforceable Through Title V Permit

51. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455 6.3.2] Federally Enforceable Through Title V Permit

52. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455, 6.2.2, 6.2.3 & 6.2.4] Federally Enforceable Through Title V Permit

53. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455, 6.4] Federally Enforceable Through Title V Permit

54. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455, 6.4.1; 40 CFR 60.485(b)] Federally Enforceable Through Title V Permit

55. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455, 6.4.2] Federally Enforceable Through Title V Permit

56. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455, 6.4.3] Federally Enforceable Through Title V Permit

57. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455, 6.4.4] Federally Enforceable Through Title V Permit

58. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455, 6.4.5] Federally Enforceable Through Title V Permit

59. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4454, 4.0] Federally Enforceable Through Title V Permit

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60. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H2S) in excess of 0.1 gr/dscf (230 mg/dscm) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit

61. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit

62. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H2S as measured by the H2S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO2 as measured by the SO2 continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit

63. Operator shall determine compliance with the H2S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit

64. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit

65. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit

66. Fuel gas sulfur content shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

67. Permittee shall determine sulfur content of combusted gas annually. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

68. Pursuant to Rule 4320, the operator shall pay an annual emission fee to the District for NOx emissions from combustion unit(s) for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

69. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit

70. Source testing to measure NOx and CO emissions from Heater 11-H12 shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

71. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit

72. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306 (amended October 16, 2008). [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

73. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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74. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

75. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

76. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

77. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

78. Source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

79. The stack concentration of NOx (as NO2), CO, and O2 for unit 10-H2 shall be measured at least on a monthly basis using District approved portable analyzers. [District Rules 4305, 4306, and 4320]] Federally Enforceable Through Title V Permit

80. The stack concentration of CO and O2 shall be measured at least on a monthly basis using District approved portable analyzers. At the time of the CO measurement, the stack concentration of NOx shall also be measured; using either the NOx CEM or District approved portable analyzer. If the NOx CEM is used, the O2 measurement from the CEM shall be used for any needed corrections to the NOx measurement, and the CO measurement must be taken in the same area of the stack as the CEM sample. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

81. If the CO concentrations, as measured by the portable analyzer, exceed the allowable emissions rate, the permittee shall notify the District and take corrective action within one (1) hour after detection. If the portable analyzer readings continue to exceed the allowable emissions rate, the permittee shall conduct an emissions test within 60 days, utilizing District-approved test methods, to demonstrate compliance with the applicable emissions limits. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

82. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2, the O2 concentration, and method of NOx measurement (CEM or portable analyzer). The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. These records shall be retained at the facility for a period of no less than 5 years and shall be made available for District inspection upon request. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

83. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

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PERMIT NO: S-33-52-18 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 28 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 86.8 MMBTU/HR CATALYTIC REFORMING UNIT #26 INCLUDING 6 HEATERS, HYDROSULFURIZATION ASSEMBLY; CATALYTIC ASSEMBLY, DEPENTANIZER SERVICE TOWER (26-V13), REBOILER STEAM CONDENSATE BALANCE DRUM (26-D31), 2 FEED/BOTTOMS EXCHANGERS (26-E45 A/B), 2 OVERHEAD CONDENSERS (26-E46 A/B), DISTILLATE COOLER (26-E47), 2 BOTTOMS PUMPS (26-P37 A/B), AND 2 REFLUX PUMPS (26 P38 A/B) , DESULFURIZER REFORMER RECYCLE COMPRESSORS (26-C11, 26-C12, 26-C13), STRIPPER GAS COMPRESSOR (26-C14), DESULFURIZER BOOSTER COMPRESSOR (26-C15), AND MISC. DRUMS, FIN FANS, EXCHANGERS, AND PIPING; RETROFIT HEATER 26-H13 WITH LOW NOX BURNERS AND REMOVE DORMANT STATUS; TRANSFER HEATER 26-H17 TO PERMIT S-33-56 AND RENAME HEATER 21-H21; UPGRADE PUMPS, HEAT EXCHANGERS AND FIN FANS; MODIFY PIPING

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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Arnaud Marjollet, Director of Permit Services
S-33-52-18 : Sep 17 2014 4:40PM – RINALDIR : Joint Inspection Required with RINALDIR

5. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit

6. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

7. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit

8. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]

9. Heater 26H12 shall not be operated for any reason until necessary retrofits are made to comply with the applicable requirements of District Rule. [District Rules 4305, 4306 and 4351] Federally Enforceable Through Title V Permit

10. No modifications to heater 26H12 shall be performed without an Authority to Construct for that modification(s), except for changes specified in the condition below. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

11. The fuel supply line(s) shall be physically disconnected from heater 26H12. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

12. Fugitive volatile organic compound (VOC) emissions shall not exceed 761.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Heater 26H12 emission rates shall not exceed NOx (as NO2): 0.18 lb/MMBtu or 147 ppmvd @ 3% O2, and CO: 400 ppmvd @ 3% O2. Emission limits are on a one hour average. [District Rules 2201, 4305, and 4351] Federally Enforceable Through Title V Permit

16. Emissions from heater 26H11A/B shall not exceed any of the following limits: 0.0364 lb/MMBtu or 30 ppmvd NOx @ 3% O2, see {4357} at end , 0.0076 lb-PM10/MMBtu, 400 ppmvd CO @ 3% O2 or 0.296 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4301, 4308 4306 and 4320] Federally Enforceable Through Title V Permit

17. Emissions from heaters 26H13 and 26H15 shall not exceed any of the following limits: 0.036 lb/MMBtu or 30 ppmvd NOx @ 3% O2, 0.0076 lb-PM10/MMBtu, 200 ppmvd CO @ 3% O2 or 0.148 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4301, 4306, 4308 and 4320] Federally Enforceable Through Title V Permit

18. Fuel gas sulfur content (as H2S) shall not exceed 0.10 gr/dscf (160 ppmv) over a three-hour rolling average and shall be continuously monitored and recorded. [NSPS 40 CFR Part 60, Subpart J] Federally Enforceable Through Title V Permit

19. Permittee shall meet all applicable requirements of NSPS Subparts A ,J, and GGGa. [NSPS 40 CFR Part 60, Subparts A, J, and GGGa] Federally Enforceable Through Title V Permit

20. Spent caustics and waste liquids shall be disposed of in a manner preventing the creation of odors. [District Rule 4102]

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21. Leaks from valves and connectors associated with depentanizer (26-V13) fractionation trays, reboiler steam condensate balance drum (26-D31), 2 feed/bottoms exchangers (26-E45 A/B), 2 overhead condensers (26-E46 A/B), distillate cooler (26-E47), 2 bottoms pumps (26-P37 A/B), 2 reflux pumps (26 P38 A/B) and subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured one (1) cm from potential source. [District Rule 2201] Federally Enforceable Through Title V Permit

22. Leaks from seals on pumps 26-P37A/B and 26-P38A/B and subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured one (1) cm from potential source. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

24. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201 and 4301] Federally Enforceable Through Title V Permit

25. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rule 4301] Federally Enforceable Through Title V Permit

26. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit

27. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H2S as measured by the H2S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO2 as measured by the SO2 continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit

28. Operator shall determine compliance with the H2S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit

29. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit

30. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit

31. For heaters 26H11A/B, 26H13 and 26H15, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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32. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

33. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

34. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

35. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

36. Source testing to measure NOx and CO emissions from heaters 26H11A/B, 26H13 and 26H15 while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

37. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

38. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

39. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

40. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

41. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

42. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

43. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

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44. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

45. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

46. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

47. All units in a group for which representative units are source for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

48. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

49. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 4306] Federally Enforceable Through Title V Permit

50. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081(amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 4306] Federally Enforceable Through Title V Permit

51. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit

52. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520] Federally Enforceable Through Title V Permit

53. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520 and 4301] Federally Enforceable Through Title V Permit

54. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rules 2520 and 4320] Federally Enforceable Through Title V Permit

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55. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6C or ARB Method 100. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

56. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using EPA Method 11or EPA Method 15, ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rules 2520 and 4320] Federally Enforceable Through Title V Permit

57. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

58. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H2S) in excess of 0.1 gr/dscf (230 mg/dscm). [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit

59. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit

60. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit

61. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

62. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

63. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

64. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

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65. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

66. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

67. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

68. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit

69. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit

70. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit

71. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit

72. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit

73. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

74. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455]

75. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

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76. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

77. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

78. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit

79. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit

80. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit

81. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit

82. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit

83. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit

84. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

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85. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit

86. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit

87. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit

88. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit

89. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit

90. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit

91. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit

92. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit

93. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit

94. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

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95. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4455] Federally Enforceable Through Title V Permit

96. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGGa. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484a. [40 CFR 60.592a(c)] Federally Enforceable Through Title V Permit

97. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and (f) and 40 CFR 60.482-2a(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 2,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2a(a) and (b)] Federally Enforceable Through Title V Permit

98. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)] Federally Enforceable Through Title V Permit

99. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)] Federally Enforceable Through Title V Permit

100. Any PLLS that is designated, as described in 40 CFR 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e)] Federally Enforceable Through Title V Permit

101. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)] Federally Enforceable Through Title V Permit

102. Any pump in PLLS that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(d)(4) through (6) if: 1). The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2a(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)] Federally Enforceable Through Title V Permit

103. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482a-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)] Federally Enforceable Through Title V Permit

104. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(a)] Federally Enforceable Through Title V Permit

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