San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

MAR 0 3 2015

Ms. Adean Valenzuela
Aera Energy, LLC
P O Box 11164
Bakersfield, CA 93389

Re: Notice of Minor Title V Permit Modification
District Facility # C-1121
Project # C-1150149

Dear Ms. Valenzuela:

Enclosed is the District's analysis of your application for minor Title V permit modification for the facility identified above. You proposed a Title V minor permit modification to incorporate recently issued Authority to Construct (ATC) C-1121-45-12 (under project C-1140276) into the Title V operating permit. The ATC was issued to modify Permit to Operate (PTO) C-1121-45 to add a free water knockout vessel (FWKO V-311) connected to existing vapor recovery system listed on the PTO.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued Authority to Construct (ATC) C-1121-45-12, emission increases, application, and previous Title V permit. This project will be subject to a 45-day EPA commenting period prior to the District taking final action.

If you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,

Arnaud Marjollet
Director of Permit Services

Enclosures

cc: Gerardo C. Rios, EPA (w/enclosure) via email

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

www.valleyair.org www.healthyairliving.com

Printed on recycled paper.

TITLE V APPLICATION REVIEW

Minor Modification
Project #: C-1150149

Engineer: Thom Maslowski
Date: February 25, 2015

Facility Number: C-1121
Facility Name: Aera Energy, LLC
Mailing Address: P O Box 11164
Bakersfield, CA 93389

Contact Name: Adean Valenzuela
Phone: (661) 665-5335

Responsible Official: J.S. Joseph
Title: Operations Manager

I. PROPOSAL

Aera Energy, LLC is proposing a Title V minor permit modification to incorporate recently issued Authority to Construct (ATC) C-1121-45-12 (under project C-1150149) into the Title V operating permit. The ATC was issued to modify Permit to Operate (PTO) C-1121-45 to add a free water knockout vessel (FWKO V-311) connected to existing vapor recovery system listed on the Permit to Operate (PTO).

The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with the applicable requirements and to provide the legal and factual basis for the proposed revisions.

II. FACILITY LOCATION

Heavy Oil Western Stationary Source in Kern County, CA
NE/4 Section 32 Township 19S Range 15E

III. EQUIPMENT DESCRIPTION

C-1121-42-13: 105,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK WITH 60 HP SHARED TANK VAPOR CONTROL SYSTEM SERVING TANKS C-1121-46, -79, -82 THROUGH 85, -87 THROUGH -90; HEATER TREATERS

C-1121-22 THROUGH -26; 2 PRESSURE VESSELS (V200 & V350); AND 6 FWKO VESSELS (V301, V302, V311, V312, V313, AND V336) BLANKETED WITH TEOR AND CVR WASTE GAS (T-317)

IV. SCOPE OF EPA AND PUBLIC REVIEW

This change to a Title V permit is considered to be a minor modification and, as such, requires no public review.

V. APPLICABLE REQUIREMENTS

District Rule 2520, Federally Mandated Operating Permits (Adopted June 21, 2001)

VI. DESCRIPTION OF PROPOSED MODIFICATIONS

Aera Energy has submitted an Authority to Construct (ATC) application to modify Permit to Operate (PTO) C-1121-45 to add a free water knockout vessel (FWKO V-311). The FWKO will be connected to the existing vapor recovery system listed on PTO C-1121-45.

All permit conditions of the current Permit to Operate were maintained on the propsed Permit to Operate.

VII. COMPLIANCE

In accordance with Rule 2520, 3.20, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include;

a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and

5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

In accordance with Rule 2520, the application meets the procedural requirements of section 11.4 by including;

1. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
2. The source's suggested draft permit; and
3. Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used.

VIII. ATTACHMENTS

A. Proposed Modified Title V Operating Permit No. C-1121-45-13
B. Authority to Construct No. C-1121-45-12
C. Emissions Increases
D. Application
E. Previous Title V Operating Permit No C-1121-45-11

ATTACHMENT A

Proposed Modified Title V Operating Permit No.
(C-1121-45-13)

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-45-13

EXPIRATION DATE: 12/31/2016

DRAFT

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
105,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK WITH 60 HP SHARED TANK VAPOR CONTROL SYSTEM SERVING TANKS C-1121-46, -79, -82 THROUGH 85, -87 THROUGH -90; HEATER TREATERS C-1121-22 THROUGH -26; 2 PRESSURE VESSELS (V200 & V350); AND 6 FWKO VESSELS (V301, V302, V311, V312, V313, AND V336) BLANKETED WITH TEOR AND CVR WASTE GAS (T-317)

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The efficiency of any VOC destruction device shall be measured by EPA Method 18. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor loss prevention system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District Rule 2201 and District Rule 4623] Federally Enforceable Through Title V Permit
4. Non-condensibles shall be exhausted into a working steam generator firebox or flare for combustion. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Tank venting as due to maintenance activities, breakdowns, or power outages shall not exceed eight (8) hours per calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
8. All tank gauging, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Compressor suction and knockout drum liquids shall be piped only to vapor-controlled tanks. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the Varec inspections, the Varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the Varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit
12. The pressure transmitters shall be inspected and maintained in good operating condition. The inspections may be conducted, as needed, on a quarterly basis. Replacing and repairing the pressure transmitters shall not exceed one hour per day. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. All piping, fittings, and valves 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. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520] Federally Enforceable Through Title V Permit

14. A facility operator, upon detection of a leaking component, 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 this rule. [District Rule 2520] Federally Enforceable Through Title V Permit

15. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520] Federally Enforceable Through Title V Permit

16. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520] Federally Enforceable Through Title V Permit

17. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520] Federally Enforceable Through Title V Permit

18. 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] Federally Enforceable Through Title V Permit

19. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520] Federally Enforceable Through Title V Permit

20. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit

21. The operator shall ensure that the vapor control system is functional and is operating at all times except during periods of vapor control system maintenance or power outages. [District Rule 2520] Federally Enforceable Through Title V Permit

22. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

25. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

26. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

27. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

28. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

30. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

31. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of the date and duration of the vapor control system maintenance operation. Such records shall be made available for District inspection upon request for a period of at least five years. [District Rule 2201 and Rule 2520] Federally Enforceable Through Title V Permit

33. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District Rule 2201] Federally Enforceable Through Title V Permit

34. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

35. 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 CARB and US EPA, shall be used to determine the TVP of crude oil with an API gravity of 26 degrees or less, or for any API gravity that is specified in this test method. [District Rule 4623] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

37. This unit commenced construction, modification, or reconstruction before 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] Federally Enforceable Through Title V Permit

38. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

39. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. 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] Federally Enforceable Through Title V Permit

40. Compliance with the conditions in this permit shall be deemed compliance with efficiency specification which have been waived by exhausting non-condensibles into a working steam generator firebox or flare for combustion. A permit shield is granted from there requirements. [District Rule 2520] Federally Enforceable Through Title V Permit

DRAFT

ATTACHMENT B

Authority to Construct No.
(C-1121-15-12)

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: C-1121-45-12

ISSUANCE DATE: 02/24/2014

LEGAL OWNER OR OPERATOR: AERA ENERGY LLC
MAILING ADDRESS: 10000 MING AVE
P O BOX 11164
BAKERSFIELD, CA 93389-1164

LOCATION: HEAVY OIL PRODUCTION
FRESNO COUNTY, CA

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 5,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK WITH 60 HP SHARED TANK VAPOR CONTROL SYSTEM SERVING TANKS C-1121-46, -79, -82 THROUGH 85, -87 THROUGH -90; HEATER TREATERS C-1121-22 THROUGH -26; 2 PRESSURE VESSELS (V200 & V350); AND 5 FWKO VESSELS (V301, V302, V312, V313, AND V336) BLANKETED WITH TEOR AND CVR WASTE GAS (T-317): ADD FWKO VESSEL V311 TO VAPOR CONTROL SYSTEM

CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The efficiency of any VOC destruction device shall be measured by EPA Method 18. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The tank shall be equipped with a vapor loss prevention system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District Rule 2201 and District Rule 4623] Federally Enforceable Through Title V Permit
5. Non-condensibles shall be exhausted into a working steam generator firebox or flare for combustion. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 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

for

DAVID WARNER, Director of Permit Services
C-1121-45-12 : Feb 24 2014 3:23PM – MASLOWST : Joint Inspection NOT Required

6. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District Rule 2201] Federally Enforceable Through Title V Permit

8. Tank venting as due to maintenance activities, breakdowns, or power outages shall not exceed eight (8) hours per calendar quarter. [District Rule 2201] Federally Enforceable Through Title V Permit

9. All tank gauging, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Compressor suction and knockout drum liquids shall be piped only to vapor-controlled tanks. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the Varec inspections, the Varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the Varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The pressure transmitters shall be inspected and maintained in good operating condition. The inspections may be conducted, as needed, on a quarterly basis. Replacing and repairing the pressure transmitters shall not exceed one hour per day. [District Rule 2080] Federally Enforceable Through Title V Permit

14. All piping, fittings, and valves 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. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. A facility operator, upon detection of a leaking component, 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 this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

19. 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, 9.4.2] Federally Enforceable Through Title V Permit

20. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit

22. The operator shall ensure that the vapor control system is functional and is operating at all times except during periods of vapor control system maintenance or power outages. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

26. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

27. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

28. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

30. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

31. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

32. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

33. Permittee shall maintain records of the date and duration of the vapor control system maintenance operation. Such records shall be made available for District inspection upon request for a period of at least five years. [District Rule 2201 and Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District Rule 2201] Federally Enforceable Through Title V Permit

35. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

36. 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 CARB and US EPA, shall be used to determine the TVP of crude oil with an API gravity of 26 degrees or less, or for any API gravity that is specified in this test method. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

37. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

38. This unit commenced construction, modification, or reconstruction before 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

39. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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

40. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. 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

41. Compliance with the conditions in this permit shall be deemed compliance with efficiency specification which have been waived by exhausting non-condensibles into a working steam generator firebox or flare for combustion. A permit shield is granted from there requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

ATTACHMENT C

Emissions Increases

	SSIPE (lb/yr)				
	NOx	VOC	CO	SOx	PM10
C-1121-45-12	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**

ATTACHMENT D

Application

San Joaquin Valley Air Pollution Control District

APPLICATION FOR TITLE V MODIFICATION:

[ ] ADMINISTRATIVE AMENDMENT
[X] MINOR MODIFICATION
[ ] SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO: Aera Energy LLC

2. MAILING ADDRESS:
STREET/P.O. BOX: **P.O. Box 11164**
CITY: Bakersfield STATE: CA 9-DIGIT ZIP CODE: 93389-1164

3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:
STREET: Heavy Oil Western Stationary Source
CITY: Fresno County, CA
_____ 1/4 SECTION 32 TOWNSHIP 19S RANGE 15E

INSTALLATION DATE:

4. GENERAL NATURE OF BUSINESS: Oil & Gas Production

5. EQUIPMENT FOR WHICH APPLICATION IS MADE (Include Permit Nos.):

Implement ATC number C-1121-45-12 into the Title V permit.

(Use additional sheets if necessary)

6. DO YOU REQUEST A CERTIFICATE OF CONFORMITY WITH THIS ACTION? [ ] YES [ ] NO

7. IS THIS APPLICATION SUBMITTED AS A RESULT OF A NOV/NTC? [ ] YES [X] NO NOV/NTC No.: _____

8. SIGNATURE OF APPLICANT/CONTACT PERSON: A Valenzuela

TYPE OR PRINT TITLE OF APPLICANT:
Compliance Assurance Specialist

9. TYPE OR PRINT NAME OF APPLICANT/CONTACT:
Adean Valenzuela

DATE: 2-2-15

10. FAX NUMBER:
(661) 665-5202

TELEPHONE NUMBER:
(661) 665-5335

FOR APCD USE ONLY: No $

DATE STAMP
RECEIVED
FEB 04 2015
SJVAPCD
Southern Region

FILING FEE RECEIVED: $ _____ /
DATE PAID: _____
PROJECT NO.: C-1150149 FACILITY REGION & ID: C-1121

ATTACHMENT E

Previous Title V Operating Permit No
(C-1121-45-11)

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-1121-45-11 **EXPIRATION DATE:** 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:
5,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK WITH 60 HP SHARED TANK VAPOR CONTROL SYSTEM SERVING TANKS C-1121-46, -79, -82 THROUGH 85, -87 THROUGH -90; HEATER TREATERS C-1121-22 THROUGH -26; 2 PRESSURE VESSELS (V200 & V350); AND 5 FWKO VESSELS (V301, V302, V312, V313, AND V336) BLANKETED WITH TEOR AND CVR WASTE GAS (T-317)

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The efficiency of any VOC destruction device shall be measured by EPA Method 18. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor loss prevention system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
4. Non-condensibles shall be exhausted into a working steam generator firebox or flare for combustion. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Maximum VOC content of vapor in the tank vapor space and vapor control system piping shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Tank shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Tank venting as due to maintenance activities, breakdowns, or power outages shall not exceed eight (8) hours per calendar quarter. [District NSR Rule] Federally Enforceable Through Title V Permit
8. All tank gauging, hatches, sampling ports, pressure relief valves, vapor control system components, etc. shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Tank seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Compressor suction and knockout drum liquids shall be piped only to vapor-controlled tanks. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Tank pressure/vacuum valve (Varec) shall be inspected on an annual basis. During the Varec inspections, the Varec can be removed from the tank and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the Varec valve. [District Rule 2080] Federally Enforceable Through Title V Permit
12. The pressure transmitters shall be inspected and maintained in good operating condition. The inspections may be conducted, as needed, on a quarterly basis. Replacing and repairing the pressure transmitters shall not exceed one hour per day. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. All piping, fittings, and valves 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. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. A facility operator, upon detection of a leaking component, 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 this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. 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, 9.4.2] Federally Enforceable Through Title V Permit

19. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit

21. The operator shall ensure that the vapor control system is functional and is operating at all times except during periods of vapor control system maintenance or power outages. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

25. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

26. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

27. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

28. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

30. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

31. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of the date and duration of the vapor control system maintenance operation. Such records shall be made available for District inspection upon request for a period of at least five years. [District NSR Rule and Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit

34. VOC content of vapor in tank vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

35. The permittee shall keep accurate records of VOC content of the recovered gas from the tank for a period of five years and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

36. This unit commenced construction, modification, or reconstruction before 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended December 17, 1992) and 4801 (as amended December 17, 1992) 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. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. 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

39. Compliance with the conditions in this permit shall be deemed compliance with efficiency specification which have been waived by exhausting non-condensibles into a working steam generator firebox or flare for combustion. A permit shield is granted from there requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit