



JUN 14 2011

Gerardo C. Rios, Chief
Permits Office
Air Division
U.S. EPA - Region IX
75 Hawthorne St
San Francisco, CA 94105

Re: **Notice of Minor Title V Permit Modification**
District Facility # N-3696
Project # N-1111350

Dear Mr. Rios:

Enclosed for you to review is an application for minor Title V permit modification for the facility identified above. Highway 59 Landfill Site is proposing a Title V minor permit modification to incorporate the recently issued N-3696-2-9, '-2-10 into the Title V operating permit. These ATCs authorize an expansion of the gas collection system and installation of an enclosed flare as the landfill gas control device for compliance with 40 CFR 60, Subpart WWW.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued N-3696-2-9, '-2-10, emission increases, application, and previous Title V permit. Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Jim Swaney at (559) 230-5900.

Sincerely,

David Warner
Director of Permit Services

Enclosures

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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TITLE V APPLICATION REVIEW

Minor Modification
Project #: N-1111350

Engineer: Frank DeMaris
Date: June 9, 2010

Facility Number: N-3696
Facility Name: Highway 59 Landfill Site
Mailing Address: 369 W. 18th St.
Merced, CA 95340

Contact Name: Sam Chandler
Phone: (209) 723-3153

Responsible Official: Jesse Brown
Title: Executive Director

I. PROPOSAL

Highway 59 Landfill Site is proposing a Title V minor permit modification to incorporate the recently issued N-3696-2-9 and '-2-10 into the Title V operating permit. N-3696-2-9, which authorized the expansion of the landfill gas collection system and the use of an enclosed flare as a landfill gas control device, was issued with a Certificate of Conformity (COC) and can therefore be incorporated into the Title V permit as an administrative amendment. N-3696-2-10 was processed without a COC and authorized installation of additional landfill gas extraction wells.

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

This facility is located at 7040 N. Hwy 59 in Merced, California

III. EQUIPMENT DESCRIPTION

N-3696-2-11: MUNICIPAL SOLID WASTE LANDFILL (120.9 ACRES), INCLUDING LANDFILL GAS COLLECTION SYSTEM WITH GAS EXTRACTION BLOWER, COLLECTION PIPING NETWORK, GAS/LIQUID SEPARATOR, AND CONTROLLED BY AN ENCLOSED GROUND LEVEL FLARE WITH CARBON ADSORPTION UNIT AS BACKUP

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

Highway 59 Landfill is proposing to install additional landfill gas extraction wells connected to a common header and served by an enclosed flare with backup carbon canisters. The installation of additional landfill gas extraction wells, in and of itself, is not a modification as defined in the District's New Source Review rule, although it is a design change subject to approval by the Administrator under 40 CFR 60, Subpart WWW. However, ATC N-3696-2-9 specified that no more than 41 wells would be installed, so the additional wells would be inconsistent with the equipment description. Therefore, the additional wells were specifically authorized under ATC N-3696-2-10. Since N-3696-2-9 was processed with a COC, only the condition changes from N-3696-2-9 to '-2-10 must be addressed in detail in this evaluation.

Condition 26 on ATC '-2-9 limits VOC emissions from the flare and landfill to 250.6 lb-VOC/day. This condition was revised as condition 25 in ATC '-2-10 to eliminate the redundant pollutant reference and limit VOC emissions to 250.6 pounds per day. The revised condition has been retained as condition 35 on proposed Permit to Operate '-2-11.

Condition 27 on ATC '-2-9 establishes the limits for combustion emissions from the flare. However, while potential emissions of PM₁₀ were calculated on the basis of the flow rate of landfill gas, condition 27 expressed the emission factor in terms of the flow rate of methane in the landfill gas. This condition has been

revised as condition 33 on proposed Permit to Operate '-2-11, such that the emission factor is expressed in terms of pounds (lb) per hour (hr) per standard cubic foot per minute (scfm) of landfill gas (lb/hr/scfm), eliminating the confusing reference to the methane content.

In addition to the changes noted above from ATC '-2-9 to '-2-10, other revisions to various conditions are being made to reflect actual operation of the gas collection and control system at the Highway 59 Landfill Site. These revisions involve elimination of numerous provisional conditions that became effective when the site became subject to 40 CFR 60, Subpart WWW, inclusion of new conditions that specifically itemize the requirements of Subpart WWW, and revision of other conditions to make them consistent with the proposed equipment configuration and operational intent. Finally, all conditions have been reorganized for consistency with the District's prescribed logical sequence of grouped permit conditions.

Conditions 1 through 5, 7 through 12, and 16 through 20 on the current Permit to Operate (and duplicate conditions on ATCs '-2-9 and '-2-10) have been deleted. These conditions come from the original Title V application for this site, which was processed using the municipal solid waste landfill umbrella template, and are provisional conditions intended to implement the requirements of 40 CFR 60, Subpart WWW if and when the NMOC emission rate exceeds 50 Mg/yr. The most recent NMOC emission report showed that this facility would exceed that threshold in 2010; furthermore, the operator has committed to operating the landfill gas collection system in compliance with the Subpart WWW requirements in order to be exempt from the NMOC reporting requirement in accordance with 40 CFR 60.757(b)(3). Therefore, these provisional conditions have been deleted and replaced with more specific conditions 9 through 14, 17, 45, 58, and 60 in the proposed Permit to Operate. In addition, since NMOC emissions now exceed 50 Mg/yr the facility is subject to 40 CFR Part 63, Subpart AAAA, so conditions 15, 16, and 59 have been added to ensure compliance with the requirements of that NESHAP Subpart.

Conditions 6, 14, 15, 21, 22, 23, 25, 29, 30, and 33, on the current Permit to Operate have been renumbered as conditions 30, 28, 27, 29, 2, 1, 5, 6, 7, and 8 (respectively) on the proposed Permit to Operate.

Condition 13 on the current Permit to Operate has been broken up into condition 58 and 60 on the proposed Permit to Operate. Several conditions on the current Permit to Operate and ATCs '-2-9 and '-2-10 specify that records must be retained on-site for a period of at least five years. Rather than include redundant specifications that records be retained for at least five years, this requirement has been removed from these conditions and incorporated into a separate condition (condition 60 on the proposed Permit to Operate) which applies to all

records that must be kept. This applies to conditions 34 and 35 on the current Permit to Operate, conditions 54, 55, and 67 on ATC '-2-9, and conditions 53, 54, and 66 on ATC '-2-10.

Condition 24 on the current Permit to Operate has been replaced by condition 23 on the proposed Permit to Operate, which reflects the maximum landfill gas extraction rate authorized by ATCs '-2-9 and '-2-10.

Conditions 26, 27, and 28 on the current Permit to Operate have been revised as conditions 4, 49, and 50 to reflect the fact that these requirements apply only when the flare is not functioning and landfill gas is being routed to the carbon adsorption system for control of NMOC emissions.

Conditions 31 and 32 on the current Permit to Operate have been deleted. These conditions are specific to the collection system served by a carbon adsorption system as specified in the current Permit to Operate. However, these are BACT and Rule 4642 requirements that are no longer applicable since this facility is now subject to the requirements of Subpart WWW.

Conditions 34 and 35 on the current Permit to Operate has been split into condition 60 (as discussed previously) and conditions 57 and 56 (respectively) on the proposed Permit to Operate.

Condition 40 from ATC '-2-9 has been revised for clarity and to eliminate redundant phrasing, and renumbered as condition 41 on the proposed Permit to Operate.

Condition 46 from ATC '-2-9 has been revised to require reporting of sulfur content test and source test results to the District within 60 days. The revised condition is included as condition 43 on the proposed Permit to Operate.

Conditions 32, 47 through 50, 31, 21, 66, 29, 58, 30, 33, 34, 45, 35, 42 through 44, 55, and 56 from ATC '-2-9 has been renumbered as conditions 3, 18 through 21, 22, 24, 26, 31, 32, 34, 39, 40, 42, 44, 46 through 48, 54, and 55 on the proposed Permit to Operate.

Conditions 25, 36 through 38, and 51 through 53 from ATC '-2-9 were incorporated into the proposed Permit to Operate with the same condition numbers as on the ATC.

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. N-3696-2-11
- B. Authorities to Construct No. N-3696-2-9, '-2-10
- C. Emissions Increases
- D. Application
- E. Previous Title V Operating Permit No. N-3696-2-8

ATTACHMENT A

Proposed Modified Title V Operating Permit No.
(N-3696-2-11)

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-3696-2-11

EXPIRATION DATE: 04/30/2016

EQUIPMENT DESCRIPTION:

MUNICIPAL SOLID WASTE LANDFILL (120.9 ACRES), INCLUDING LANDFILL GAS COLLECTION SYSTEM WITH GAS EXTRACTION BLOWER, COLLECTION PIPING NETWORK, GAS/LIQUID SEPARATOR, AND CONTROLLED BY AN ENCLOSED GROUND LEVEL FLARE WITH CARBON ADSORPTION UNIT AS BACKUP

PERMIT UNIT REQUIREMENTS

1. All equipment shall be constructed, maintained and operated according to the specifications and plans contained in the permit application except as otherwise specified herein. [District Rule 2201] Federally Enforceable Through Title V Permit
2. 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
3. Sampling ports adequate for sulfur testing shall be provided in the landfill gas manifold line to the flare. [District Rule 1081] Federally Enforceable Through Title V Permit
4. Sampling ports adequate for extraction of grab samples, measurement of gas flow rate, and use of an FID, PID, or other District-approved VOC detection device shall be provided for the carbon adsorption system for both the influent and the effluent gas streams. [District Rule 1081] Federally Enforceable Through Title V Permit
5. Landfill gas line from collection header shall be equipped with a gas flow rate measurement device. [District Rule 2201] Federally Enforceable Through Title V Permit
6. A minimum of twelve 200-pound carbon canisters which are connected as pairs in series shall be utilized. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The carbon canisters removed from the system shall be sealed vapor tight. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Soil with VOC content of 50 ppm by weight or greater shall not be used as daily cover. [District Rule 4651] Federally Enforceable Through Title V Permit
9. The owner/operator shall install, maintain, and operate a collection and control system that captures gas generated from the landfill and routes it to a control system that complies with the requirements of 40 CFR 60.752(b)(2)(iii). [40 CFR 60.752(b)(2)] Federally Enforceable Through Title V Permit
10. In the event that the collection or control system becomes inoperable, the gas mover equipment (as defined in 40 CFR 60.751) shall be shut down and all valves in the collection and control system contributing to venting of the landfill gas to the atmosphere shall be closed within one hour. [40 CFR 60.753(e)] Federally Enforceable Through Title V Permit
11. The collection system shall be operated such that the methane concentration is less than 500 parts per million above background at the surface of the landfill. Compliance with this surface methane operational standard shall be demonstrated using the procedures outlined in 40 CFR 60.755(c) within 180 days of installation and startup of the collection and control system and quarterly thereafter. [40 CFR 60.753(d), 40 CFR 60.755(c), and 40 CFR 60.8] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

12. The collection and control system shall comply with all applicable provisions of 40 CFR 60 Subpart WWW at all times except during periods of startup, shutdown, or malfunction, provided that the duration of startup, shutdown, or malfunction shall not exceed five consecutive days for the collection system and shall not exceed one hour for the control system while the collection system is operating. [40 CFR 60.755(e)] Federally Enforceable Through Title V Permit
13. The owner/operator shall install, calibrate, maintain, and operate a device that records flow to or bypass of the control device. This device may be a meter that measures and records the landfill gas flow rate into the flare at least once every 15 minutes, and is also capable of measuring the landfill gas flow rate that might bypass the flare in the event of equipment malfunction or maintenance. Alternatively, this device may secure the bypass line valve in the closed position and shall be inspected at least once every month to ensure that the valve is maintained in the closed position. [40 CFR 60.756(c)(2)]
14. The landfill gas collection and control system shall comply with the operational standards of 40 CFR 60.753, the compliance provisions of 40 CFR 60.755, the monitoring provisions of 40 CFR 60.756, the reporting and record keeping requirements of 40 CFR 60.757 and 60.758, and the requirements of 40 CFR 60.759 (for active collection systems). [40 CFR 60.752(b)(2)(ii), 60.753, 60.755, 60.756, 60.757, 60.758, 60.759, 62.14353 and 62.14354(b)] Federally Enforceable Through Title V Permit
15. The owner or operator shall comply with the requirements of 40 CFR 63.1960 through 63.1985, and with the general provisions of 40 CFR part 63, as specified in table 1 of 40 CFR part 63, subpart AAAA. [40 CFR 63.1955(b) and 63.1980(b)] Federally Enforceable Through Title V Permit
16. The owner or operator shall develop and implement a written startup, shutdown and malfunction (SSM) plan according to the provisions of 40 CFR 63.6(e)(3). A copy of the SSM plan shall be maintained on site. Failure to write, implement or maintain a copy of the SSM plan is a deviation from the requirements of 40 CFR part 63, subpart AAAA. [40 CFR 63.1960] Federally Enforceable Through Title V Permit
17. The gas collection and control system shall comply with the operational standards of 40 CFR 60.753, the compliance provisions of 40 CFR 60.755, the monitoring provisions of 40 CFR 60.756, the reporting and record keeping requirements of 40 CFR 60.757 and 60.758, and the requirements of 40 CFR 60.759 (for active collection systems). [40 CFR 60.752(b)(2)(ii), 60.753, 60.755, 60.756, 60.757, 60.758 and 60.759] Federally Enforceable Through Title V Permit
18. Gas collection system shall be operated in a manner which maximizes the amount of landfill gas extracted while preventing overdraw that can cause fires or damage the gas collection system. [District NSR Rule] Federally Enforceable Through Title V Permit
19. During maintenance of the gas collection system or incineration device, emissions of landfill gas shall be minimized during shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Maintenance is defined as work performed on a gas collection system and/or control device in order to ensure continued compliance with District rules, regulations, and/or Permits to Operate, and to prevent its failure or malfunction. [District NSR Rule] Federally Enforceable Through Title V Permit
21. The permittee shall notify the APCO by telephone at least 24 hours before performing any maintenance work that requires the system to be shutdown. The notification shall include a description of work, the date work will be performed and the amount of time needed to complete the maintenance work. [District NSR Rule] Federally Enforceable Through Title V Permit
22. A non-resettable, totalizing mass or volumetric landfill gas fuel flow meter to measure the amount of gas combusted in the enclosed flare shall be installed, utilized and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit
23. The flowrate of collected landfill gas into the flare shall not exceed 2,100 scfm. [District NSR Rule] Federally Enforceable Through Title V Permit
24. No air contaminant shall be discharged into the atmosphere from the landfill gas control system for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1/4 or 5% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

25. The entire gas collection system shall be inspected for leaks with a portable analyzer in accordance with EPA Method 21 at least quarterly. After four successful inspections, the frequency shall be annually. If a leak is detected, quarterly inspections shall resume. A leak is defined as a measurement in excess of 1,000 ppm (measured as methane) above background when measured at a distance of one (1) centimeter from the potential source. Leaks shall be repaired within 15 calendar days after it is detected. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. When using carbon adsorption, the carbon canisters removed from the system shall be sealed vapor tight. [District Rule 2201] Federally Enforceable Through Title V Permit
27. If the landfill is permanently closed, a closure notification shall be submitted to the APCO within 30 days of waste disposal cessation. A permanent closure must take place in accordance with 40 CFR 258.60. If a closure report has been submitted, no additional waste may be placed in the landfill without filing a notification of modification to the APCO, pursuant to 40 CFR 60.7(a)(4). [40 CFR 60.752(b)(1)(ii)(B), 60.757(d)] Federally Enforceable Through Title V Permit
28. This operating permit may be cancelled with APCO approval when the landfill is closed, pursuant to the requirements of this permit, if the landfill is not otherwise subject to the requirements of either 40 CFR part 70 or part 71 and if either 1) it was never subject to the requirement for a control system under 40 CFR 60.752(b)(2); or 2) the owner or operator meets the conditions for control system removal specified in 40 CFR 60.752(b)(2)(v). [40 CFR 60.752(d)] Federally Enforceable Through Title V Permit
29. Upon receiving an approved plan for closure, or partial closure, the operator shall modify this operating permit to comply with the requirements of District Rule 4642. [District Rule 4642, 3.2 and 4.1.1] Federally Enforceable Through Title V Permit
30. For PSD purposes, the NMOC emission rate shall be estimated and compared to the PSD major source and significance levels in 40 CFR 51.166 or 52.21, using AP-42 or EPA-approved procedures. [40 CFR 60.754(c)] Federally Enforceable Through Title V Permit
31. Enclosed flare shall reduce the inlet NMOC emissions by at least 98% by weight or to no more than 20 ppmvd @ 3% O₂ as hexane. [District NSR Rule] Federally Enforceable Through Title V Permit
32. The carbon adsorption system shall be at least 98% efficient in controlling VOCs from the landfill gas collection system. [District Rule 2201] Federally Enforceable Through Title V Permit
33. Emissions from the flare shall not exceed any of the following limits: 0.05 lb-NO_x/MMBtu, 76.6 lb-SO_x/day, 0.0010 lb-PM₁₀/hr/ scfm, or 0.15 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
34. Emissions from the flare LPG-fired pilot shall not exceed any of the following limits: 0.15 lb-NO_x/MMBtu, 0.0164 lb-SO_x/MMBtu, 0.0044 lb-PM₁₀/MMBtu, 0.021 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
35. VOC emissions from the flare and landfill shall not exceed 250.6 pounds per day. [District NSR Rule] Federally Enforceable Through Title V Permit
36. Total waste material accepted shall not exceed 2,126 tons per day or 776,040 tons per year. [District NSR Rule] Federally Enforceable Through Title V Permit
37. Total clean (<50 ppm by weight VOC) soil cover usage rate shall not exceed 5000 tons per day. [District NSR Rule] Federally Enforceable Through Title V Permit
38. Total PM₁₀ emissions from handling of waste material and soil cover shall not exceed 0.0023 pounds per ton material handled. [District NSR Rule] Federally Enforceable Through Title V Permit
39. SO_x emissions shall be determined by measuring the sulfur concentration in the landfill gas and calculating the correlated SO_x emission rate based on the correlation between landfill gas sulfur concentration and associated SO_x emission rate demonstrated during startup. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

40. Testing to demonstrate compliance with the daily SOx emission limit shall be conducted quarterly. Once eight (8) consecutive quarterly tests show compliance, the frequency of monitoring sulfur content, and associated SOx emissions, may be reduced to semi-annually. If a semi-annual test shows violation of the SOx emission limit, then quarterly testing shall resume and continue until four (4) consecutive tests show compliance. Once compliance is shown on four (4) consecutive quarterly tests, then testing may return to semi-annually. [District NSR Rule] Federally Enforceable Through Title V Permit
41. Source testing of the flare to demonstrate compliance with the flare NOx and CO limits, and with the NMOC destruction efficiency of 98%, or no more than 20 ppmvd @ 3% O2 as hexane as required by this permit, shall be conducted within 60 days of startup and annually thereafter. [District NSR Rule] Federally Enforceable Through Title V Permit
42. 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. The results of each source test shall be submitted to the District within 60 days after testing. [District Rule 1081] Federally Enforceable Through Title V Permit
43. The results of each landfill gas sulfur content test or source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
44. Sulfur content of the landfill gas being combusted in the flare shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC or colorimetric methods using Draeger tubes for H2S and mercaptans, or an equivalent method approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit
45. Flare NMOC emissions shall be conducted using USEPA Test Method 18, 25A, or 25C. [District Rule 1081 and 40 CFR 60.754(d)] Federally Enforceable Through Title V Permit
46. Source testing for flare NOx emissions shall be conducted using CARB Method 7 or Method 20. [District Rule 1081] Federally Enforceable Through Title V Permit
47. Source testing for flare CO emissions shall be conducted using EPA Method 10 or 10B, CARB Methods 1 through 5 with 10, or CARB Method 100. [District Rule 1081] Federally Enforceable Through Title V Permit
48. Operator shall determine landfill gas fuel higher heating value annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District NSR Rule] Federally Enforceable Through Title V Permit
49. When using carbon adsorption, ongoing compliance with NMOC control efficiency requirement shall be demonstrated by sampling both the influent and the effluent gas streams with an FID, PID, or other District-approved NMOC detection device. [District Rule 1081] Federally Enforceable Through Title V Permit
50. *When using carbon adsorption, sampling to demonstrate ongoing compliance with the VOC emission rate and control efficiency requirements shall be performed at least once per week by sampling both the influent and the effluent gas streams with an FID, PID, or other District-approved VOC detection device. [District Rule 1081] Federally Enforceable Through Title V Permit
51. The operator shall maintain records of system inspections including: date, time and inspection results. [District Rule 1070] Federally Enforceable Through Title V Permit
52. The operator shall maintain records of maintenance related or other collection system and control device downtime, including individual well shutdown. [District Rule 1070] Federally Enforceable Through Title V Permit
53. The operator shall record emission control device source tests (emissions of CO, NOx, and VOC) in pounds per MMbtu heat input. Operator shall also record VOC destruction/treatment efficiency. [District Rule 1081] Federally Enforceable Through Title V Permit
54. A record of continuous flare combustion temperature and continuous volumetric gas flow rate, and monthly calculations of net heating value of landfill gas being combusted, daily landfill gas fuel consumption, and daily heat input shall be maintained. [District NSR Rule] Federally Enforceable Through Title V Permit
55. Records of daily landfill gas flow rate, annual test results of higher heating value of landfill gas, and calculated daily SOx emissions shall be compiled monthly and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

56. Records of the cumulative running time and the measured influent and effluent VOC concentrations shall be maintained. Records of system inspections including: date, time and inspection results shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
57. Daily records of the weight of materials received - including waste material (tons) and soil cover (cubic yards converted to tons) - and daily records of all soil organic content test results and certifications for loads contaminated with VOCs, shall be maintained. [District Rule 4651] Federally Enforceable Through Title V Permit
58. Each owner or operator shall keep up-to-date, readily accessible, on-site records of the maximum design capacity, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. [40 CFR 60.758(a) and District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
59. The owner or operator shall keep records and reports as specified in 40 CFR part 60 subpart WWW, except that the owner or operator shall submit the annual report described in 40 CFR 60.757(f) every 6 months. [40 CFR 63.1980(a)] Federally Enforceable Through Title V Permit
60. 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. Off-site records may be maintained if they are retrievable within 4 hours. [District Rule 1070 and 40 CFR 60.758(a)] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

DRAFT

ATTACHMENT B

Authorities to Construct No.
(N-3696-2-9, '-2-10)



AUTHORITY TO CONSTRUCT

PERMIT NO: N-3696-2-9

ISSUANCE DATE: 11/06/2008

LEGAL OWNER OR OPERATOR: HIGHWAY 59 LANDFILL SITE
MAILING ADDRESS: SOLID WASTE DIVISION
2222 M STREET, RM 206
MERCED, CA 95340

LOCATION: 6040 N HIGHWAY 59
MERCED, CA 95340

EQUIPMENT DESCRIPTION:

MODIFICATION OF MUNICIPAL SOLID WASTE LANDFILL (115 ACRES), INCLUDING LANDFILL GAS COLLECTION SYSTEM WITH GAS EXTRACTION BLOWER, COLLECTION PIPING NETWORK, GAS/LIQUID SEPARATOR, AND CONTROLLED BY A CARBON ADSORPTION UNIT: INSTALL UP TO 41 LFG EXTRACTION WELLS AND INSTALL 2,100 SCFM ENCLOSED GROUND LEVEL FLARE AND CORRECT LANDFILL ACREAGE FROM 115 TO 120.9

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 NSR Rule] 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. Tier 2 specifications to determine the site-specific NMOC concentration shall include the following: 1) For sampling, at least 2 sample probes shall be installed per hectare of landfill surface that has retained waste for at least 2 years, up to a maximum of 50 required probes. One sample of landfill gas shall be collected from each probe to determine the NMOC concentration, using EPA Method 25, 25C, another method approved by the EPA, or 18, in accordance with 40 CFR 60.754(a)(3). If EPA Method 18 is used, the minimum list of compounds to be tested shall be those published in the most recent Compilation of AP-42. If composite sampling is used, equal sample volumes are required. All samples taken shall be used in the analysis. The NMOC concentration from Method 25 or 25C shall be divided by 6 to convert from C-NMOC, as carbon to as hexane. 2) For landfills equipped with active collection systems, samples may be collected from the common header pipe before gas moving or condensate removal equipment; a minimum of 3 samples must be collected. [40 CFR 60.754(a)(3) and (a)(5)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 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


DAVID WARNER, Director of Permit Services
N-3696-2-9 Nov 6 2008 11:30AM - TOMS : Joint Inspection NOT Required

4. Tier 2 specifications to determine the site-specific NMOC concentration shall include the following: 1) The NMOC mass emission rate shall be recalculated using the average site-specific concentration, instead of the default value, 2) If the resulting calculated mass emission rate is equal to or greater than 50 megagrams/year, the landfill owner or operator shall either comply with 60.752(b)(2), or determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using Tier 3 specifications. [40 CFR 60.754(a)(3)(i)&(ii)] Federally Enforceable Through Title V Permit
5. If the calculated NMOC mass emission rate, using the site-specific NMOC concentration, is less than 50 megagrams/year, then a periodic estimate of the emission rate report, pursuant to 60.757(b)(1) shall be submitted to the Administrator. The site-specific NMOC concentration shall be retested every 5 years, using Tier 2 specifications. [40 CFR 60.754(a)(3)(iii)] Federally Enforceable Through Title V Permit
6. Tier 3 specifications to determine the site-specific methane generation rate constant shall include the following: 1) EPA Method 2E or another method approved by the EPA shall be used, 2) The NMOC mass emission rate shall be recalculated using the average site-specific NMOC concentration and the site-specific methane generation rate constant k, instead of the default values in 40 CFR 60(a)(1), and 3) If the resulting calculated NMOC mass emission rate is equal to or greater than 50 megagrams/year, the landfill owner or operator shall comply with 60.752(b)(2). [40 CFR 60.754(a)(4), (a)(5) and (i)] Federally Enforceable Through Title V Permit
7. If Tier 3 specifications are used to determine the site-specific methane generation rate and the calculated NMOC mass emission rate is less than 50 megagrams/year, then a periodic emission rate report shall be submitted to the Administrator, pursuant to 60.757(b)(1) and the NMOC concentration shall be recalculated annually, pursuant to 60.757(b)(1), using the site-specific methane generation rate constant and the NMOC concentration obtained using Tier 2 specifications. Determination of the site-specific methane generation rate constant is performed once and used in all subsequent annual NMOC emission rate calculations. [40 CFR 60.754(a)(4)(ii)] Federally Enforceable Through Title V Permit
8. For PSD purposes, the NMOC emission rate shall be estimated and compared to the PSD major source and significance levels in 40 CFR 51.166 or 52.21, using AP-42 or EPA-approved procedures. [40 CFR 60.754(c)] Federally Enforceable Through Title V Permit
9. The NMOC emission rate shall be recalculated and reported to the APCO annually, except as otherwise provided in this permit, until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams/year and a collection and control system is installed or until the landfill is closed. [40 CFR 60.752(b)(1), 60.754(a) and 60.757(b)] Federally Enforceable Through Title V Permit
10. If the NMOC emission rate, as reported in the annual report is less than 50 megagrams/year in each of the next 5 consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual reports for those 5 years. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years. All data and calculations upon which this estimate is based shall be provided to the APCO. This estimate shall be revised at least once every 5 years. [40 CFR 60.757(b)(1)(ii)] Federally Enforceable Through Title V Permit
11. If the actual waste acceptance rate exceeds the estimated rate used in any year reported in a 5-year estimate of the NMOC emission rate, then a revised 5-year estimate shall be submitted to the APCO. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated acceptance rate. [40 CFR 60.757(b)(1)(ii)] Federally Enforceable Through Title V Permit
12. The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions. [40 CFR 60.757(b)(2)] Federally Enforceable Through Title V Permit
13. If the owner or operator elects to recalculate the NMOC emission rate using Tier 2 specifications and the resulting NMOC emission rate is less than 50 megagrams/year, annual periodic reporting shall resume. The revised NMOC emission rate report, with the recalculated NMOC emission rate using Tier 2 specifications, shall be submitted within 180 days of the first Tier 1 calculated exceedance of 50 Megagrams/year. [40 CFR 60.757(c)(1)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

14. If the owner or operator elects to recalculate the NMOC emission rate using Tier 3 specifications and the resulting NMOC emission rate is less than 50 megagrams/year, annual periodic reporting shall resume. The revised NMOC emission rate report, with the recalculated NMOC emission rate using Tier 3 specifications, shall be submitted within 1 year of the first Tier 1 calculated exceedance of 50 Megagrams/year. [40 CFR 60.757(c)(2)] Federally Enforceable Through Title V Permit
15. Each owner or operator shall keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. [40 CFR 60.758(a) and District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
16. This operating permit may be cancelled with APCO approval when the landfill is closed, pursuant to the requirements of this permit, if the landfill is not otherwise subject to the requirements of either 40 CFR part 70 or part 71 and if either 1) it was never subject to the requirement for a control system under 40 CFR 60.752(b)(2); or 2) the owner or operator meets the conditions for control system removal specified in 40 CFR 60.752(b)(2)(v). [40 CFR 60.752(d)] Federally Enforceable Through Title V Permit
17. If the landfill is permanently closed, a closure notification shall be submitted to the APCO within 30 days of waste disposal cessation. A permanent closure must take place in accordance with 40 CFR 258.60. If a closure report has been submitted, no additional waste may be placed in the landfill without filing a notification of modification to the APCO, pursuant to 40 CFR 60.7(a)(4). [40 CFR 60.752(b)(1)(ii)(B), 60.757(d)] Federally Enforceable Through Title V Permit
18. If the calculated NMOC is equal to or greater than 50 megagrams/year, the owner or operator shall install a collection and control system, that effectively captures the gas generated within the landfill, within 30 months of that determination. This operating permit must be modified accordingly to show compliance with 40 CFR 62, Subpart GGG requirements applicable to a MSWL with a collection and control system. [40 CFR 60.752(b)(2)(ii), 60.753, 60.755 and 60.756] Federally Enforceable Through Title V Permit
19. If a gas collection and control system is installed, it shall comply with the operational standards of 40 CFR 60.753, the compliance provisions of 40 CFR 60.755, the monitoring provisions of 40 CFR 60.756, the reporting and record keeping requirements of 40 CFR 60.757 and 60.758, and the requirements of 40 CFR 60.759 (for active collection systems). [40 CFR 60.752(b)(2)(ii), 60.753, 60.755, 60.756, 60.757, 60.758 and 60.759] Federally Enforceable Through Title V Permit
20. Upon receiving an approved plan for closure, or partial closure, the operator shall modify this operating permit to comply with the requirements of District Rule 4642. [District Rule 4642, 3.2 and 4.1.1] Federally Enforceable Through Title V Permit
21. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1/4 or 5% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
22. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
23. 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
24. All equipment shall be constructed, maintained and operated according to the specifications and plans contained in the permit application except as otherwise specified herein. [District Rule 2201] Federally Enforceable Through Title V Permit
25. The entire gas collection system shall be inspected for leaks with a portable analyzer in accordance with EPA Method 21 at least quarterly. After four successful inspections, the frequency shall be annually. If a leak is detected, quarterly inspections shall resume. A leak is defined as a measurement in excess of 1,000 ppm (measured as methane) above background when measured at a distance of one (1) centimeter from the potential source. Leaks shall be repaired within 15 calendar days after it is detected. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. VOC emissions from the flare and landfill shall not exceed 250.6 lb-VOC/day. [District NSR Rule] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

27. Emissions from the flare shall not exceed any of the following limits: 0.05 lb-NO_x/MMBtu, 76.6 lb-SO_x/day, 0.0010 lb-PM₁₀/hr/scf CH₄, or 0.15 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
28. The flowrate of collected landfill gas into the flare shall not exceed 2,100 scfm. [District NSR Rule] Federally Enforceable Through Title V Permit
29. Enclosed flare shall reduce the inlet NMOC emissions by at least 98% by weight or to no more than 20 ppmvd @ 3% O₂ as hexane. [District NSR Rule] Federally Enforceable Through Title V Permit
30. Emissions from the flare LPG-fired pilot shall not exceed any of the following limits: 0.15 lb-NO_x/MMBtu, 0.0164 lb-SO_x/MMBtu, 0.0044 lb-PM₁₀/MMBtu, 0.021 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
31. A non-resettable, totalizing mass or volumetric landfill gas fuel flow meter to measure the amount of gas combusted in the enclosed flare shall be installed, utilized and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit
32. Sampling ports adequate for sulfur testing shall be provided in the landfill gas manifold line to the flare. [District Rule 1081] Federally Enforceable Through Title V Permit
33. SO_x emissions shall be determined by measuring the sulfur concentration in the landfill gas and calculating the correlated SO_x emission rate based on the correlation between landfill gas sulfur concentration and associated SO_x emission rate demonstrated during startup. [District Rule 1081] Federally Enforceable Through Title V Permit
34. Testing to demonstrate compliance with the daily SO_x emission limit shall be conducted quarterly. Once eight (8) consecutive quarterly tests show compliance, the frequency of monitoring sulfur content, and associated SO_x emissions, may be reduced to semi-annually. If a semi-annual test shows violation of the SO_x emission limit, then quarterly testing shall resume and continue until four (4) consecutive tests show compliance. Once compliance is shown on four (4) consecutive quarterly tests, then testing may return to semi-annually. [District NSR Rule] Federally Enforceable Through Title V Permit
35. Sulfur content of the landfill gas being combusted in the flare shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC or colorimetric methods using Draeger tubes for H₂S and mercaptans, or an equivalent method approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit
36. Total waste material accepted shall not exceed 2,126 tons per day or 776,040 tons per year. [District NSR Rule] Federally Enforceable Through Title V Permit
37. Total clean (<50 ppm by weight VOC) soil cover usage rate shall not exceed 5000 tons per day. [District NSR Rule] Federally Enforceable Through Title V Permit
38. Total PM₁₀ emissions from handling of waste material and soil cover shall not exceed 0.0023 pounds per ton material handled. [District NSR Rule] Federally Enforceable Through Title V Permit
39. Soil with VOC content of 50 ppm by weight or greater shall not be used as daily cover. [District Rule 4651] Federally Enforceable Through Title V Permit
40. Source testing on the flare shall be performed to demonstrate compliance with the flare NO_x and CO limits, and the NMOC destruction efficiency of 98%, or no more than 20 ppmvd @ 3% O₂ as hexane, as required by this permit shall be conducted within 60 days of startup and annually thereafter. [District NSR Rule] Federally Enforceable Through Title V Permit
41. Flare NMOC emissions shall be conducted using USEPA Test Method 18, 25A, or 25C. [District Rule 1081 and 40 CFR 60.754(d)] Federally Enforceable Through Title V Permit
42. Source testing for flare NO_x emissions shall be conducted using CARB Method 7 or Method 20. [District Rule 1081] Federally Enforceable Through Title V Permit
43. Source testing for flare CO emissions shall be conducted using EPA Method 10 or 10B, CARB Methods 1 through 5 with 10, or CARB Method 100. [District Rule 1081] Federally Enforceable Through Title V Permit
44. Operator shall determine landfill gas fuel higher heating value annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District NSR Rule] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

45. 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. The results of each source test shall be submitted to the District within 60 days after testing. [District Rule 1081] Federally Enforceable Through Title V Permit
46. The results of each landfill gas sulfur content test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
47. Gas collection system shall be operated in a manner which maximizes the amount of landfill gas extracted while preventing overdraw that can cause fires or damage the gas collection system. [District NSR Rule] Federally Enforceable Through Title V Permit
48. During maintenance of the gas collection system or incineration device, emissions of landfill gas shall be minimized during shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
49. Maintenance is defined as work performed on a gas collection system and/or control device in order to ensure continued compliance with District rules, regulations, and/or Permits to Operate, and to prevent its failure or malfunction. [District NSR Rule] Federally Enforceable Through Title V Permit
50. The permittee shall notify the APCO by telephone at least 24 hours before performing any maintenance work that requires the system to be shutdown. The notification shall include a description of work, the date work will be performed and the amount of time needed to complete the maintenance work. [District NSR Rule] Federally Enforceable Through Title V Permit
51. Permittee shall maintain records of system inspections including: date, time and inspection results. [District Rule 1070] Federally Enforceable Through Title V Permit
52. Permittee shall maintain records of maintenance related or other collection system and control device downtime, including individual well shutdown. [District Rule 1070] Federally Enforceable Through Title V Permit
53. The operator shall record emission control device source tests (emissions of CO, NOx, and VOC) in pounds per MMBtu heat input. Operator shall also record VOC destruction/treatment efficiency. [District Rule 1081] Federally Enforceable Through Title V Permit
54. Daily records of the weight of materials received - including waste material (tons) and soil cover (cubic yards converted to tons) - and daily records of all soil organic content test results and certifications for loads contaminated with VOCs, shall be maintained, kept on site for a period of five years, and made available to District staff upon request. [District Rule 4651] Federally Enforceable Through Title V Permit
55. A record of continuous flare combustion temperature and continuous volumetric gas flow rate, and monthly calculations of net heating value of landfill gas being combusted, daily landfill gas fuel consumption, and daily heat input shall be maintained, retained on the premises for a period of at least five years and made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
56. Records of daily landfill gas flow rate, annual test results of higher heating value of landfill gas, and calculated daily SOx emissions shall be compiled monthly and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit
57. Landfill gas line from collection header shall be equipped with a gas flow rate measurement device. [District Rule 2201] Federally Enforceable Through Title V Permit
58. The carbon adsorption system shall be at least 98% efficient in controlling VOCs from the landfill gas collection system. [District Rule 2201] Federally Enforceable Through Title V Permit
59. When using carbon adsorption, sampling ports adequate for extraction of grab samples, measurement of gas flow rate, and use of an FID, PID, or other District-approved VOC detection device shall be provided for both the influent and the effluent gas streams. [District Rule 1081] Federally Enforceable Through Title V Permit
60. When using carbon adsorption, laboratory samples shall be taken at the initial operation, under the supervision of the APCD Inspector. Samples shall be taken from both the influent and the effluent gas stream sampling ports. [District Rule 1081] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

61. When using carbon adsorption, measurements to determine the influent and the effluent gas flow rates shall be taken at the initial operation. Flow rate calculations shall be submitted to the District along with the laboratory sample analysis results. [District Rule 1081] Federally Enforceable Through Title V Permit
62. When using carbon adsorption, initial compliance with VOC emission rate and control efficiency requirements shall be demonstrated by the results of the laboratory sample analysis. The results shall be submitted to the District within 60 days of the test. [District Rule 1081] Federally Enforceable Through Title V Permit
63. When using carbon adsorption, ongoing compliance with VOC emission rate and control efficiency requirements shall be demonstrated by sampling both the influent and the effluent gas streams with an FID, PID, or other District-approved VOC detection device. [District Rule 1081] Federally Enforceable Through Title V Permit
64. When using carbon adsorption, sampling to demonstrate ongoing compliance with the VOC emission rate and control efficiency requirements shall be performed at least once per week by sampling both the influent and the effluent gas streams with an FID, PID, or other District-approved VOC detection device. [District Rule 1081] Federally Enforceable Through Title V Permit
65. When using carbon adsorption, a minimum of two (2) carbon canisters which are connected in series shall be utilized. [District Rule 2201] Federally Enforceable Through Title V Permit
66. When using carbon adsorption, the carbon canisters removed from the system shall be sealed vapor tight. [District Rule 2201] Federally Enforceable Through Title V Permit
67. Records of the cumulative running time and the measured influent and effluent VOC concentrations shall be maintained. Records of system inspections including: date, time and inspection results shall be maintained. All records shall be retained on the premises for at least five years and made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
68. All records shall be retained 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



COPY

AUTHORITY TO CONSTRUCT

PERMIT NO: N-3696-2-10

ISSUANCE DATE: 07/08/2010

LEGAL OWNER OR OPERATOR: HIGHWAY 59 LANDFILL SITE
MAILING ADDRESS: SOLID WASTE DIVISION
2222 M STREET, RM 206
MERCED, CA 95340

LOCATION: 6040 N HIGHWAY 59
MERCED, CA 95340

EQUIPMENT DESCRIPTION:

MODIFICATION OF: MUNICIPAL SOLID WASTE LANDFILL (120.9 ACRES), INCLUDING LANDFILL GAS COLLECTION SYSTEM WITH GAS EXTRACTION BLOWER, COLLECTION PIPING NETWORK, GAS/LIQUID SEPARATOR, AND CONTROLLED BY AN ENCLOSED GROUND LEVEL FLARE WITH CARBON ADSORPTION UNIT AS BACKUP: INSTALL 43 LANDFILL GAS (LFG) EXTRACTION WELLS IN-ADDITION TO THE PREVIOUSLY PERMITTED WELLS

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. Tier 2 specifications to determine the site-specific NMOC concentration shall include the following: 1) For sampling, at least 2 sample probes shall be installed per hectare of landfill surface that has retained waste for at least 2 years, up to a maximum of 50 required probes. One sample of landfill gas shall be collected from each probe to determine the NMOC concentration, using EPA Method 25, 25C, another method approved by the EPA, or 18, in accordance with 40 CFR 60.754(a)(3). If EPA Method 18 is used, the minimum list of compounds to be tested shall be those published in the most recent Compilation of AP-42. If composite sampling is used, equal sample volumes are required. All samples taken shall be used in the analysis. The NMOC concentration from Method 25 or 25C shall be divided by 6 to convert from C-NMOC, as carbon to as hexane. 2) For landfills equipped with active collection systems, samples may be collected from the common header pipe before gas moving or condensate removal equipment; a minimum of 3 samples must be collected. [40 CFR 60.754(a)(3) and (a)(5)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 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 Saadedin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

N-3696-2-10, Jul 8 2010 5:22PM - KAH/LOHJ - Joint Inspection NOT Required

3. Tier 2 specifications to determine the site-specific NMOC concentration shall include the following: 1) The NMOC mass emission rate shall be recalculated using the average site-specific concentration, instead of the default value, 2) If the resulting calculated mass emission rate is equal to or greater than 50 megagrams/year, the landfill owner or operator shall either comply with 60.752(b)(2), or determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using Tier 3 specifications. [40 CFR 60.754(a)(3)(i)&(ii)] Federally Enforceable Through Title V Permit
4. If the calculated NMOC mass emission rate, using the site-specific NMOC concentration, is less than 50 megagrams/year, then a periodic estimate of the emission rate report, pursuant to 60.757(b)(1) shall be submitted to the Administrator. The site-specific NMOC concentration shall be retested every 5 years, using Tier 2 specifications. [40 CFR 60.754(a)(3)(iii)] Federally Enforceable Through Title V Permit
5. Tier 3 specifications to determine the site-specific methane generation rate constant shall include the following: 1) EPA Method 2E or another method approved by the EPA shall be used, 2) The NMOC mass emission rate shall be recalculated using the average site-specific NMOC concentration and the site-specific methane generation rate constant k , instead of the default values in 40 CFR 60(a)(1), and 3) If the resulting calculated NMOC mass emission rate is equal to or greater than 50 megagrams/year, the landfill owner or operator shall comply with 60.752(b)(2). [40 CFR 60.754(a)(4), (a)(5) and (i)] Federally Enforceable Through Title V Permit
6. If Tier 3 specifications are used to determine the site-specific methane generation rate and the calculated NMOC mass emission rate is less than 50 megagrams/year, then a periodic emission rate report shall be submitted to the Administrator, pursuant to 60.757(b)(1) and the NMOC concentration shall be recalculated annually, pursuant to 60.757(b)(1), using the site-specific methane generation rate constant and the NMOC concentration obtained using Tier 2 specifications. Determination of the site-specific methane generation rate constant is performed once and used in all subsequent annual NMOC emission rate calculations. [40 CFR 60.754(a)(4)(ii)] Federally Enforceable Through Title V Permit
7. For PSD purposes, the NMOC emission rate shall be estimated and compared to the PSD major source and significance levels in 40 CFR 51.166 or 52.21, using AP-42 or EPA-approved procedures. [40 CFR 60.754(c)] Federally Enforceable Through Title V Permit
8. The NMOC emission rate shall be recalculated and reported to the APCO annually, except as otherwise provided in this permit, until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams/year and a collection and control system is installed or until the landfill is closed. [40 CFR 60.752(b)(1), 60.754(a) and 60.757(b)] Federally Enforceable Through Title V Permit
9. If the NMOC emission rate, as reported in the annual report is less than 50 megagrams/year in each of the next 5 consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual reports for those 5 years. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years. All data and calculations upon which this estimate is based shall be provided to the APCO. This estimate shall be revised at least once every 5 years. [40 CFR 60.757(b)(1)(ii)] Federally Enforceable Through Title V Permit
10. If the actual waste acceptance rate exceeds the estimated rate used in any year reported in a 5-year estimate of the NMOC emission rate, then a revised 5-year estimate shall be submitted to the APCO. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated acceptance rate. [40 CFR 60.757(b)(1)(ii)] Federally Enforceable Through Title V Permit
11. The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions. [40 CFR 60.757(b)(2)] Federally Enforceable Through Title V Permit
12. If the owner or operator elects to recalculate the NMOC emission rate using Tier 2 specifications and the resulting NMOC emission rate is less than 50 megagrams/year, annual periodic reporting shall resume. The revised NMOC emission rate report, with the recalculated NMOC emission rate using Tier 2 specifications, shall be submitted within 180 days of the first Tier 1 calculated exceedance of 50 Megagrams/year. [40 CFR 60.757(c)(1)] Federally Enforceable Through Title V Permit

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13. If the owner or operator elects to recalculate the NMOC emission rate using Tier 3 specifications and the resulting NMOC emission rate is less than 50 megagrams/year, annual periodic reporting shall resume. The revised NMOC emission rate report, with the recalculated NMOC emission rate using Tier 3 specifications, shall be submitted within 1 year of the first Tier 1 calculated exceedance of 50 Megagrams/year. [40 CFR 60.757(c)(2)] Federally Enforceable Through Title V Permit
14. Each owner or operator shall keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. [40 CFR 60.758(a) and District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. This operating permit may be cancelled with APCO approval when the landfill is closed, pursuant to the requirements of this permit, if the landfill is not otherwise subject to the requirements of either 40 CFR part 70 or part 71 and if either 1) it was never subject to the requirement for a control system under 40 CFR 60.752(b)(2); or 2) the owner or operator meets the conditions for control system removal specified in 40 CFR 60.752(b)(2)(v). [40 CFR 60.752(d)] Federally Enforceable Through Title V Permit
16. If the landfill is permanently closed, a closure notification shall be submitted to the APCO within 30 days of waste disposal cessation. A permanent closure must take place in accordance with 40 CFR 258.60. If a closure report has been submitted, no additional waste may be placed in the landfill without filing a notification of modification to the APCO, pursuant to 40 CFR 60.7(a)(4). [40 CFR 60.752(b)(1)(ii)(B), 60.757(d)] Federally Enforceable Through Title V Permit
17. If the calculated NMOC is equal to or greater than 50 megagrams/year, the owner or operator shall install a collection and control system, that effectively captures the gas generated within the landfill, within 30 months of that determination. This operating permit must be modified accordingly to show compliance with 40 CFR 62, Subpart GGG requirements applicable to a MSWL with a collection and control system. [40 CFR 60.752(b)(2)(ii), 60.753, 60.755 and 60.756] Federally Enforceable Through Title V Permit
18. If a gas collection and control system is installed, it shall comply with the operational standards of 40 CFR 60.753, the compliance provisions of 40 CFR 60.755, the monitoring provisions of 40 CFR 60.756, the reporting and record keeping requirements of 40 CFR 60.757 and 60.758, and the requirements of 40 CFR 60.759 (for active collection systems). [40 CFR 60.752(b)(2)(ii), 60.753, 60.755, 60.756, 60.757, 60.758 and 60.759] Federally Enforceable Through Title V Permit
19. Upon receiving an approved plan for closure, or partial closure, the operator shall modify this operating permit to comply with the requirements of District Rule 4642. [District Rule 4642, 3.2 and 4.1.1] Federally Enforceable Through Title V Permit
20. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1/4 or 5% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
21. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
22. 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
23. All equipment shall be constructed, maintained and operated according to the specifications and plans contained in the permit application except as otherwise specified herein. [District Rule 2201] Federally Enforceable Through Title V Permit
24. The entire gas collection system shall be inspected for leaks with a portable analyzer in accordance with EPA Method 21 at least quarterly. After four successful inspections, the frequency shall be annually. If a leak is detected, quarterly inspections shall resume. A leak is defined as a measurement in excess of 1,000 ppm (measured as methane) above background when measured at a distance of one (1) centimeter from the potential source. Leaks shall be repaired within 15 calendar days after it is detected. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
25. VOC emissions from the flare and landfill shall not exceed 250.6 pounds per day. [District NSR Rule] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

26. Emissions from the flare shall not exceed any of the following limits: 0.05 lb-NO_x/MMBtu, 76.6 lb-SO_x/day, 0.0010 lb-PM₁₀/hr/scf, or 0.15 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
27. The flowrate of collected landfill gas into the flare shall not exceed 2,100 scfm. [District NSR Rule] Federally Enforceable Through Title V Permit
28. Enclosed flare shall reduce the inlet NMOC emissions by at least 98% by weight or to no more than 20 ppmvd @ 3% O₂ as hexane. [District NSR Rule] Federally Enforceable Through Title V Permit
29. Emissions from the flare LPG-fired pilot shall not exceed any of the following limits: 0.15 lb-NO_x/MMBtu, 0.0164 lb-SO_x/MMBtu, 0.0044 lb-PM₁₀/MMBtu, 0.021 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
30. A non-resettable, totalizing mass or volumetric landfill gas fuel flow meter to measure the amount of gas combusted in the enclosed flare shall be installed, utilized and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Sampling ports adequate for sulfur testing shall be provided in the landfill gas manifold line to the flare. [District Rule 1081] Federally Enforceable Through Title V Permit
32. SO_x emissions shall be determined by measuring the sulfur concentration in the landfill gas and calculating the correlated SO_x emission rate based on the correlation between landfill gas sulfur concentration and associated SO_x emission rate demonstrated during startup. [District Rule 1081] Federally Enforceable Through Title V Permit
33. Testing to demonstrate compliance with the daily SO_x emission limit shall be conducted quarterly. Once eight (8) consecutive quarterly tests show compliance, the frequency of monitoring sulfur content, and associated SO_x emissions, may be reduced to semi-annually. If a semi-annual test shows violation of the SO_x emission limit, then quarterly testing shall resume and continue until four (4) consecutive tests show compliance. Once compliance is shown on four (4) consecutive quarterly tests, then testing may return to semi-annually. [District NSR Rule] Federally Enforceable Through Title V Permit
34. Sulfur content of the landfill gas being combusted in the flare shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC or colorimetric methods using Draeger tubes for H₂S and mercaptans, or an equivalent method approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit
35. Total waste material accepted shall not exceed 2,126 tons per day or 776,040 tons per year. [District NSR Rule] Federally Enforceable Through Title V Permit
36. Total clean (<50 ppm by weight VOC) soil cover usage rate shall not exceed 5000 tons per day. [District NSR Rule] Federally Enforceable Through Title V Permit
37. Total PM₁₀ emissions from handling of waste material and soil cover shall not exceed 0.0023 pounds per ton material handled. [District NSR Rule] Federally Enforceable Through Title V Permit
38. Soil with VOC content of 50 ppm by weight or greater shall not be used as daily cover. [District Rule 4651] Federally Enforceable Through Title V Permit
39. Source testing on the flare shall be performed to demonstrate compliance with the flare NO_x and CO limits, and the NMOC destruction efficiency of 98%, or no more than 20 ppmvd @ 3% O₂ as hexane, as required by this permit shall be conducted within 60 days of startup and annually thereafter. [District NSR Rule] Federally Enforceable Through Title V Permit
40. Flare NMOC emissions shall be conducted using USEPA Test Method 18, 25A, or 25C. [District Rule 1081 and 40 CFR 60.754(d)] Federally Enforceable Through Title V Permit
41. Source testing for flare NO_x emissions shall be conducted using CARB Method 7 or Method 20. [District Rule 1081] Federally Enforceable Through Title V Permit
42. Source testing for flare CO emissions shall be conducted using EPA Method 10 or 10B, CARB Methods 1 through 5 with 10, or CARB Method 100. [District Rule 1081] Federally Enforceable Through Title V Permit
43. Operator shall determine landfill gas fuel higher heating value annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District NSR Rule] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

44. 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. The results of each source test shall be submitted to the District within 60 days after testing. [District Rule 1081] Federally Enforceable Through Title V Permit
45. The results of each landfill gas sulfur content test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
46. Gas collection system shall be operated in a manner which maximizes the amount of landfill gas extracted while preventing overdraw that can cause fires or damage the gas collection system. [District NSR Rule] Federally Enforceable Through Title V Permit
47. During maintenance of the gas collection system or incineration device, emissions of landfill gas shall be minimized during shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
48. Maintenance is defined as work performed on a gas collection system and/or control device in order to ensure continued compliance with District rules, regulations, and/or Permits to Operate, and to prevent its failure or malfunction. [District NSR Rule] Federally Enforceable Through Title V Permit
49. The permittee shall notify the APCO by telephone at least 24 hours before performing any maintenance work that requires the system to be shutdown. The notification shall include a description of work, the date work will be performed and the amount of time needed to complete the maintenance work. [District NSR Rule] Federally Enforceable Through Title V Permit
50. Permittee shall maintain records of system inspections including: date, time and inspection results. [District Rule 1070] Federally Enforceable Through Title V Permit
51. Permittee shall maintain records of maintenance related or other collection system and control device downtime, including individual well shutdown. [District Rule 1070] Federally Enforceable Through Title V Permit
52. The operator shall record emission control device source tests (emissions of CO, NO_x, and VOC) in pounds per MMbtu heat input. Operator shall also record VOC destruction/treatment efficiency. [District Rule 1081] Federally Enforceable Through Title V Permit
53. Daily records of the weight of materials received - including waste material (tons) and soil cover (cubic yards converted to tons) - and daily records of all soil organic content test results and certifications for loads contaminated with VOCs, shall be maintained, kept on site for a period of five years, and made available to District staff upon request. [District Rule 4651] Federally Enforceable Through Title V Permit
54. A record of continuous flare combustion temperature and continuous volumetric gas flow rate, and monthly calculations of net heating value of landfill gas being combusted, daily landfill gas fuel consumption, and daily heat input shall be maintained, retained on the premises for a period of at least five years and made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
55. Records of daily landfill gas flow rate, annual test results of higher heating value of landfill gas, and calculated daily SO_x emissions shall be compiled monthly and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit
56. Landfill gas line from collection header shall be equipped with a gas flow rate measurement device. [District Rule 2201] Federally Enforceable Through Title V Permit
57. The carbon adsorption system shall be at least 98% efficient in controlling VOCs from the landfill gas collection system. [District Rule 2201] Federally Enforceable Through Title V Permit
58. When using carbon adsorption, sampling ports adequate for extraction of grab samples, measurement of gas flow rate, and use of an FID, PID, or other District-approved VOC detection device shall be provided for both the influent and the effluent gas streams. [District Rule 1081] Federally Enforceable Through Title V Permit
59. When using carbon adsorption, laboratory samples shall be taken at the initial operation, under the supervision of the APCD Inspector. Samples shall be taken from both the influent and the effluent gas stream sampling ports. [District Rule 1081] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

60. When using carbon adsorption, measurements to determine the influent and the effluent gas flow rates shall be taken at the initial operation. Flow rate calculations shall be submitted to the District along with the laboratory sample analysis results. [District Rule 1081] Federally Enforceable Through Title V Permit
61. When using carbon adsorption, initial compliance with VOC emission rate and control efficiency requirements shall be demonstrated by the results of the laboratory sample analysis. The results shall be submitted to the District within 60 days of the test. [District Rule 1081] Federally Enforceable Through Title V Permit
62. When using carbon adsorption, ongoing compliance with VOC emission rate and control efficiency requirements shall be demonstrated by sampling both the influent and the effluent gas streams with an FID, PID, or other District-approved VOC detection device. [District Rule 1081] Federally Enforceable Through Title V Permit
63. When using carbon adsorption, sampling to demonstrate ongoing compliance with the VOC emission rate and control efficiency requirements shall be performed at least once per week by sampling both the influent and the effluent gas streams with an FID, PID, or other District-approved VOC detection device. [District Rule 1081] Federally Enforceable Through Title V Permit
64. When using carbon adsorption, a minimum of two (2) carbon canisters which are connected in series shall be utilized. [District Rule 2201] Federally Enforceable Through Title V Permit
65. When using carbon adsorption, the carbon canisters removed from the system shall be sealed vapor tight. [District Rule 2201] Federally Enforceable Through Title V Permit
66. Records of the cumulative running time and the measured influent and effluent VOC concentrations shall be maintained. Records of system inspections including: date, time and inspection results shall be maintained. All records shall be retained on the premises for at least five years and made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
67. All records shall be retained 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

ATTACHMENT C

Emissions Increases

	SSIPE (lb/yr)				
	NOx	VOC	CO	SOx	PM10
N-3696-2-9	27,594	-98,207	82,782	27,959	18,396
N-3696-2-10	0	0	0	0	0
TOTAL	27,594	-98,207	82,782	27,959	18,396

ATTACHMENT D

Application

San Joaquin Valley Air Pollution Control District

www.valleyair.org

Permit Application For:

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

1. PERMIT TO BE ISSUED TO: <u>REGIONAL WASTE MANAGEMENT AUTHORITY</u>	
2. MAILING ADDRESS: STREET/P.O. BOX: <u>369 W. 18TH STREET</u> CITY: <u>MERCED</u> STATE: <u>CA</u> 9-DIGIT ZIP CODE: <u>95340</u>	
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: <u>7040 N. HIGHWAY 59</u> CITY: <u>MERCED</u> APN 052-150-004 & APN 052-160-033 ¼ SECTION <u>23 & 24</u> TOWNSHIP <u>6S</u> RANGE <u>13E MDB&M</u>	INSTALLATION DATE: <u>MAY 2011</u>
4. GENERAL NATURE OF BUSINESS: <u>MUNICIPAL SOLID WASTE LANDFILL</u>	
5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary) <u>INCORPORATE ATC N-3696-2-10 INTO TITLE V PERMIT; ATC N-3696-2-10 IS CURRENTLY IN THE "START UP PHASE"</u>	
6. TYPE OR PRINT NAME OF APPLICANT: <u>JESSE BROWN</u>	TITLE OF APPLICANT: <u>EXECUTIVE DIRECTOR</u>
7. SIGNATURE OF APPLICANT: 	DATE: <u>May 10, 2011</u> PHONE: <u>(209) 723-3153</u> FAX: <u>(209) 723-0322</u> EMAIL:

For APCD Use Only:

DATE STAMP	FILING FEE RECEIVED: \$ _____ CHECK#: _____ DATE PAID: _____ PROJECT NO: <u>N-1111350</u> FACILITY ID: <u>N-3696</u>
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FACILITY ID: N-3696
4-13-2011

**San Joaquin Valley
Unified Air Pollution Control District**

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

- SIGNIFICANT PERMIT MODIFICATION ADMINISTRATIVE AMENDMENT
 MINOR PERMIT MODIFICATION

COMPANY NAME: HIGHWAY 59 LANDFILL	FACILITY ID: N - 3696
1. Type of Organization: <input type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input checked="" type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: REGIONAL WASTE MANAGEMENT AUTHORITY	
3. Agent to the Owner: JESSE BROWN	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):

- Based on information and belief formed after reasonable inquiry, the source identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the source identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:



Signature of Responsible Official

MAY 10, 2011

Date

JESSE BROWN

Name of Responsible Official (please print)

EXECUTIVE DIRECTOR

Title of Responsible Official (please print)

ATTACHMENT E

Previous Title V Operating Permit No.
N-3696-2-8

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-3696-2-8

EXPIRATION DATE: 04/30/2016

EQUIPMENT DESCRIPTION:

MUNICIPAL SOLID WASTE LANDFILL (115 ACRES), INCLUDING LANDFILL GAS COLLECTION SYSTEM WITH GAS EXTRACTION BLOWER, COLLECTION PIPING NETWORK, GAS/LIQUID SEPARATOR, AND CONTROLLED BY A CARBON ADSORPTION UNIT

PERMIT UNIT REQUIREMENTS

1. Tier 2 specifications to determine the site-specific NMOC concentration shall include the following: 1) For sampling, at least 2 sample probes shall be installed per hectare of landfill surface that has retained waste for at least 2 years, up to a maximum of 50 required probes. One sample of landfill gas shall be collected from each probe to determine the NMOC concentration, using EPA Method 25, 25C, another method approved by the EPA, or 18, in accordance with 40 CFR 60.754(a)(3). If EPA Method 18 is used, the minimum list of compounds to be tested shall be those published in the most recent Compilation of AP-42. If composite sampling is used, equal sample volumes are required. All samples taken shall be used in the analysis. The NMOC concentration from Method 25 or 25C shall be divided by 6 to convert from C-NMOC, as carbon to as hexane. 2) For landfills equipped with active collection systems, samples may be collected from the common header pipe before gas moving or condensate removal equipment; a minimum of 3 samples must be collected. [40 CFR 60.754(a)(3) and (a)(5)] Federally Enforceable Through Title V Permit
2. Tier 2 specifications to determine the site-specific NMOC concentration shall include the following: 1) The NMOC mass emission rate shall be recalculated using the average site-specific concentration, instead of the default value, 2) If the resulting calculated mass emission rate is equal to or greater than 50 megagrams/year, the landfill owner or operator shall either comply with 60.752(b)(2), or determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using Tier 3 specifications. [40 CFR 60.754(a)(3)(i)&(ii)] Federally Enforceable Through Title V Permit
3. If the calculated NMOC mass emission rate, using the site-specific NMOC concentration, is less than 50 megagrams/year, then a periodic estimate of the emission rate report, pursuant to 60.757(b)(1) shall be submitted to the Administrator. The site-specific NMOC concentration shall be retested every 5 years, using Tier 2 specifications. [40 CFR 60.754(a)(3)(iii)] Federally Enforceable Through Title V Permit
4. Tier 3 specifications to determine the site-specific methane generation rate constant shall include the following: 1) EPA Method 2E or another method approved by the EPA shall be used, 2) The NMOC mass emission rate shall be recalculated using the average site-specific NMOC concentration and the site-specific methane generation rate constant k, instead of the default values in 40 CFR 60(a)(1), and 3) If the resulting calculated NMOC mass emission rate is equal to or greater than 50 megagrams/year, the landfill owner or operator shall comply with 60.752(b)(2). [40 CFR 60.754(a)(4), (a)(5) and (i)] Federally Enforceable Through Title V Permit
5. If Tier 3 specifications are used to determine the site-specific methane generation rate and the calculated NMOC mass emission rate is less than 50 megagrams/year, then a periodic emission rate report shall be submitted to the Administrator, pursuant to 60.757(b)(1) and the NMOC concentration shall be recalculated annually, pursuant to 60.757(b)(1), using the site-specific methane generation rate constant and the NMOC concentration obtained using Tier 2 specifications. Determination of the site-specific methane generation rate constant is performed once and used in all subsequent annual NMOC emission rate calculations. [40 CFR 60.754(a)(4)(ii)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

6. For PSD purposes, the NMOC emission rate shall be estimated and compared to the PSD major source and significance levels in 40 CFR 51.166 or 52.21, using AP-42 or EPA-approved procedures. [40 CFR 60.754(c)] Federally Enforceable Through Title V Permit
7. The NMOC emission rate shall be recalculated and reported to the APCO annually, except as otherwise provided in this permit, until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams/year and a collection and control system is installed or until the landfill is closed. [40 CFR 60.752(b)(1), 60.754(a) and 60.757(b)] Federally Enforceable Through Title V Permit
8. If the NMOC emission rate, as reported in the annual report is less than 50 megagrams/year in each of the next 5 consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual reports for those 5 years. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years. All data and calculations upon which this estimate is based shall be provided to the APCO. This estimate shall be revised at least once every 5 years. [40 CFR 60.757(b)(1)(ii)] Federally Enforceable Through Title V Permit
9. If the actual waste acceptance rate exceeds the estimated rate used in any year reported in a 5-year estimate of the NMOC emission rate, then a revised 5-year estimate shall be submitted to the APCO. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated acceptance rate. [40 CFR 60.757(b)(1)(ii)] Federally Enforceable Through Title V Permit
10. The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions. [40 CFR 60.757(b)(2)] Federally Enforceable Through Title V Permit
11. If the owner or operator elects to recalculate the NMOC emission rate using Tier 2 specifications and the resulting NMOC emission rate is less than 50 megagrams/year, annual periodic reporting shall resume. The revised NMOC emission rate report, with the recalculated NMOC emission rate using Tier 2 specifications, shall be submitted within 180 days of the first Tier 1 calculated exceedance of 50 Megagrams/year. [40 CFR 60.757(c)(1)] Federally Enforceable Through Title V Permit
12. If the owner or operator elects to recalculate the NMOC emission rate using Tier 3 specifications and the resulting NMOC emission rate is less than 50 megagrams/year, annual periodic reporting shall resume. The revised NMOC emission rate report, with the recalculated NMOC emission rate using Tier 3 specifications, shall be submitted within 1 year of the first Tier 1 calculated exceedance of 50 Megagrams/year. [40 CFR 60.757(c)(2)] Federally Enforceable Through Title V Permit
13. Each owner or operator shall keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. [40 CFR 60.758(a) and District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
14. This operating permit may be cancelled with APCO approval when the landfill is closed, pursuant to the requirements of this permit, if the landfill is not otherwise subject to the requirements of either 40 CFR part 70 or part 71 and if either 1) it was never subject to the requirement for a control system under 40 CFR 60.752(b)(2); or 2) the owner or operator meets the conditions for control system removal specified in 40 CFR 60.752(b)(2)(v). [40 CFR 60.752(d)] Federally Enforceable Through Title V Permit
15. If the landfill is permanently closed, a closure notification shall be submitted to the APCO within 30 days of waste disposal cessation. A permanent closure must take place in accordance with 40 CFR 258.60. If a closure report has been submitted, no additional waste may be placed in the landfill without filing a notification of modification to the APCO, pursuant to 40 CFR 60.7(a)(4). [40 CFR 60.752(b)(1)(ii)(B), 60.757(d)] Federally Enforceable Through Title V Permit
16. If the calculated NMOC is equal to or greater than 50 megagrams/year, the owner or operator shall install a collection and control system, that effectively captures the gas generated within the landfill, within 30 months of that determination. This operating permit must be modified accordingly to show compliance with 40 CFR 62, Subpart GGG requirements applicable to a MSWL with a collection and control system. [40 CFR 60.752(b)(2)(ii), 60.753, 60.755 and 60.756] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

17. If a gas collection and control system is installed, it shall comply with the operational standards of 40 CFR 60.753, the compliance provisions of 40 CFR 60.755, the monitoring provisions of 40 CFR 60.756, the reporting and record keeping requirements of 40 CFR 60.757 and 60.758, and the requirements of 40 CFR 60.759 (for active collection systems). [40 CFR 60.752(b)(2)(ii), 60.753, 60.755, 60.756, 60.757, 60.758 and 60.759] Federally Enforceable Through Title V Permit
18. If required to install a gas collection and control system in accordance with the provisions of 40 CFR 60.752(b)(2), the owner or operator shall comply with the requirements of 40 CFR 63.1960 through 63.1985, and with the general provisions of 40 CFR part 63, as specified in table 1 of 40 CFR part 63, subpart AAAA. [40 CFR 63.1955(b) and 63.1980(b)] Federally Enforceable Through Title V Permit
19. If required to install a gas collection and control system in accordance with the provisions of 40 CFR 60.752(b)(2), the owner or operator shall develop and implement a written startup, shutdown and malfunction (SSM) plan according to the provisions of 40 CFR 63.6(e)(3). A copy of the SSM plan shall be maintained on site. Failure to write, implement or maintain a copy of the SSM plan is a deviation from the requirements of 40 CFR part 63, subpart AAAA. [40 CFR 63.1960] Federally Enforceable Through Title V Permit
20. If required to install a gas collection and control system in accordance with the provisions of 40 CFR 60.752(b)(2), the owner or operator shall keep records and reports as specified in 40 CFR part 60 subpart WWW, except that the owner or operator shall submit the annual report described in 40 CFR 60.757(f) every 6 months. [40 CFR 63.1980(a)] Federally Enforceable Through Title V Permit
21. Upon receiving an approved plan for closure, or partial closure, the operator shall modify this operating permit to comply with the requirements of District Rule 4642. [District Rule 4642, 3.2 and 4.1.1] Federally Enforceable Through Title V Permit
22. 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
23. All equipment shall be constructed, maintained and operated according to the specifications and plans contained in the permit application except as otherwise specified herein. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Landfill gas collection rate shall not exceed 1500 cubic feet per minute. [District Rule 2201] Federally Enforceable Through Title V Permit
25. Landfill gas line from collection header shall be equipped with a gas flow rate measurement device. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Sampling ports adequate for extraction of grab samples, measurement of gas flow rate, and use of an FID, PID, or other District-approved VOC detection device shall be provided for both the influent and the effluent gas streams. [District Rule 1081] Federally Enforceable Through Title V Permit
27. Ongoing compliance with VOC emission rate and control efficiency requirements shall be demonstrated by sampling both the influent and the effluent gas streams with an FID, PID, or other District-approved VOC detection device. [District Rule 1081] Federally Enforceable Through Title V Permit
28. Sampling to demonstrate ongoing compliance shall be performed at least once per week. [District Rule 1081] Federally Enforceable Through Title V Permit
29. A minimum of twelve 200-pound carbon canisters which are connected as pairs in series shall be utilized. [District Rule 2201] Federally Enforceable Through Title V Permit
30. The carbon canisters removed from the system shall be sealed vapor tight. [District Rule 2201] Federally Enforceable Through Title V Permit
31. Either the VOC control efficiency shall not be less than 95%, or the total VOC emission rate shall not exceed 2 pounds in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
32. The VOC concentration of the effluent gas from the vapor collection system served by carbon canisters shall not exceed 28 ppmv as hexane. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

33. Soil with VOC content of 50 ppm by weight or greater shall not be used as daily cover. [District Rule 4651] Federally Enforceable Through Title V Permit
34. Daily records of the weight of materials received - including waste material (tons) and soil cover (cubic yards converted to tons) - and daily records of all soil organic content test results and certifications for loads contaminated with VOCs, shall be maintained, kept on site for a period of five years, and made available to District staff upon request. [District Rule 4651] Federally Enforceable Through Title V Permit
35. Records of the cumulative running time and the measured influent and effluent VOC concentrations shall be maintained. Records of system inspections including: date, time and inspection results shall be maintained. All records shall be retained on the premises for at least five years and made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.