

**MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT
TITLE V OPERATING PERMIT #TV75-01
EVALUATION REPORT**

24580 Silver Cloud Court
Monterey, CA 93940
Telephone: (831) 647-9411

APPLICATION RECEIVED FROM:

Salinas Valley Solid Waste Authority
128 Sun Street, Suite 101
P.O. Box 2159
Salinas, CA 93902

PLANT SITE LOCATION:

Crazy Horse Landfill
350 Crazy Horse Road
Salinas, California

APPLICATION PROCESSED BY:

Eva Goodman and Mike Sewell, Air Quality Engineers

APPROVED FOR RELEASE BY:



Greg Chee
Supervising Air Quality Engineer

NOV 15 2013

Date

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Nature of Business: Municipal Solid Waste Landfill

SIC Code: 4953 - Refuse Systems

RESPONSIBLE OFFICIAL:

Name: Mr. Cesar Zuniga
Title: Operations Manager
Phone: (831) 775-3020

ALTERNATIVE RESPONSIBLE OFFICIAL:

Name: Mr. Patrick Matthews
Title: General Manager
Phone: (831) 775-3006

FACILITY CONTACT PERSON:

Name: Mr. Cesar Zuniga
Title: Operations Manager
Phone: (831) 775-3020

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PROJECT DESCRIPTION

The existing Title V permit (#TV53-01) issued to the Salinas Valley Solid Waste Authority's Crazy Horse Landfill on January 1, 2009 expires on December 31, 2013. This application is for renewal of the Title V Permit on the required five-year renewal cycle.

FACILITY DESCRIPTION

The Salinas Valley Solid Waste Authority's (SVSWA) Crazy Horse Landfill is a Municipal Solid Waste (MSW) Landfill permitted by the State's CalRecycle agency (CalRecycle subsumed the California Integrated Waste Management Board) to receive a maximum of 750 tons per day of MSW. This landfill site has been accepting waste since the mid-1930's. In April 2010, the landfill ceased accepting waste and is moving toward official closure status.

Located on the landfill is one landfill gas collection system consisting of interior and perimeter wells. The collected gas is presently combusted in the existing landfill gas destruction system which consists of two enclosed ground flares operated by the SVSWA. A proposed second landfill gas destruction system has been permitted by the District for a non-SVSWA entity and when installed the collected landfill gas will be diverted from the flares and will be combusted in a reciprocating engine which drives a generator to produce electricity.

The SVSWA's Crazy Horse Landfill is subject to the following:

- federal Title V permitting requirements because the landfill is subject to federal New Source Performance Standards (NSPS) for Municipal Solid Waste (MSW) Landfills, Subpart WWW.
- federal NSPS, Subpart WWW because the design capacity of the landfill is greater than 2.5 million cubic meters.
- federal National Emission Standard for Hazardous Air Pollutants (NESHAP) for Municipal Solid Waste Landfills, Subpart AAAAA, based upon being subject to NSPS Subpart WWW.

EQUIPMENT DESCRIPTION

MUNICIPAL SOLID WASTE LANDFILL CONSISTING OF:

1. 160 Acre Landfill Site Of Which 82 Acres Were Permitted For Waste Disposal; Waste Acceptance Cessation In April 2010.
2. Landfill Gas Collection Systems, Vertical Wells, Lateral Collector Pipes, Header Pipes, And Gas Movers To Collect And Route Landfill Gas To The Landfill Gas Treatment System Or Directly To The Flares.
3. Landfill Gas Flares: Two (2) Enclosed Ground Flares, Rated At 29 And 72 MMBtu/Hr Maximum.

4. Lean Burn Engine(s), Combusting Treated Landfill Gas: Non-SVSWA-Owned, And Exempt From Subpart WWW (NSPS For MSW Landfills)

5. Ancillary Equipment:

Contaminated Groundwater Treatment System

Solid Waste Pilot Project: Steam Autoclave And Biomethane Basin

APPLICABLE FEDERAL REQUIREMENTS

- Rule 200 - Permits Required
- Rule 201 - Sources Not Requiring Permits
- Rule 207 - Review of New or Modified Sources
- Rule 214 - Breakdown Conditions
- Rule 218 - Title V: Federal Operating Permits
- Rule 308 - Title V: Federal Operating Permit Fees
- Rule 400 - Visible Emissions
- Rule 403 - Particulate Matter
- Rule 404 - Sulfur Compounds and Nitrogen Oxides
- Rule 412 - Sulfur Content of Fuels
- Rule 426 - Architectural Coatings
- 40 CFR Part 60, Subpart A - New Source Performance Standards, General Provisions
- 40 CFR Part 60, Subpart WWWW - New Source Performance Standard (NSPS) for Municipal Solid Waste Landfills
- 40 CFR Part 63, Subpart AAAAA - National Emission Standard for Hazardous Air Pollutants (NESHAP) for Municipal Solid Waste Landfills
- 40 CFR Part 64 - Compliance Assurance Monitoring
- 40 CFR Part 68 - Risk Management Planning: Accidental Release Prevention (Section 112r)
- 40 CFR Part 82 - Protection of Stratospheric Ozone

COMPLIANCE DETERMINATION FOR APPLICABLE FEDERAL REQUIREMENTS

Rule 200 - Permits Required

This facility has historically complied with the requirements of this rule to obtain permits, and continued compliance is expected.

Rule 201 - Sources Not Requiring Permits

This rule identifies which equipment is exempt from District permitting requirements.

Rule 207 - Review of New or Modified Sources

Methane emissions produced from the landfill proper are not subject to District new source review Rule 207, and no conditions from this rule will be included on the permit for the landfill proper. A landfill gas engine was permitted by the District in 1985 and removed in 2009, the ground water treatment permitted by the District in 1989, and the two enclosed ground flares permitted by the District in

1997 and 2006, respectively. The review and permitting process of the landfill gas engine-generator, the ground water treatment, and the enclosed ground flares established that the equipment could operate in compliance with all District rules and that the emissions from the equipment did not exceed the trigger levels requiring public notification. Therefore, the conditions imposed on the local District permits are not federally enforceable and will not be included on this permit.

Rule 214 - Breakdown Conditions

This is the implementing regulation in which the District has established the criteria for reporting equipment breakdowns. The requirements imposed by this rule will be included on this permit.

Rule 218 - Title V: Federal Operating Permits

This is the implementing regulation by which the District issues the federal Operating Permits. All requirements imposed by this rule will be included on the Title V permit.

Rule 308 - Title V: Federal Operating Permit Fees

This is the District's fee rule for Title V. Appropriate conditions will be included on the Title V permit to ensure compliance with the fee provisions contained in this rule.

Rule 400 - Visible Emissions

This rule limits certain visible emissions. Appropriate conditions will be included on the permit to ensure compliance with this rule.

Rule 403 - Particulate Matter

The 0.15 grains per dry cubic foot exhaust gas emission standard of Rule 403 is applicable to the enclosed ground flares and will be included on the permit. Based upon a calculated emission rate of 26.0 lbs PM10/day (emission factor = 0.0152 lbs PM10/MMBtu from Santa Barbara County APCD Flare Study, July 1991 and U.S EPA AP-42, 7.6 lb PM10/10⁶ft³ @ 500 BTU/ft³), the grain loading is 0.014 grains per dry cubic foot exhaust gas [26 lbs/day x 7000 grains/lb x 1 min/9000 ft³ x 1 day/1400 minutes = 0.014 grains/ft³]. Therefore, no testing will be required because compliance is assured (with 0.15 grains/ft³ or less) from the above calculation.

Rule 404 - Sulfur Compounds and Nitrogen Oxides

The SO₂ provisions of the rule are applicable to the emissions from the facility.

Compliance is demonstrated with the Rule 404 limit of 0.2% by volume SO₂ (2000 ppmv) for combustion of landfill gas in the enclosed ground flare based on the year 2011 fuel analysis of 30 ppm sulfur, assuming all the sulfur is oxidized into SO₂ and therefore 1 lbmole of Sulfur equals 1 lbmole of SO₂. Thus, emissions are well below the 2000 ppmv SO₂.

S= Sulfur

$$\frac{30 \text{ ft}^3 \text{ S}}{10^6 \text{ ft}^3 \text{ exhaust}} * \frac{0.135 \text{ lb S}}{\text{ft}^3 \text{ S}} * \frac{\text{lbmole S}}{32 \text{ lb S}} * \frac{\text{lbmole SO}_2}{\text{lbmole S}} * \frac{64 \text{ lb SO}_2}{\text{lbmole SO}_2} * \frac{\text{ft}^3 \text{ SO}_2}{0.182 \text{ lb SO}_2} = \frac{45 \text{ ft}^3}{10^6 \text{ ft}^3 \text{ exhaust}} = 45 \text{ ppmv SO}_2$$

$$30 \text{ ppmv} * 0.135 \text{ lb S/ft}^3 * \text{lbmole}/32 \text{ lb S} * \text{ft}^3/0.0752 \text{ lb exhaust} * 29 \text{ lb/lbmole} = 49 \text{ ppmm S}$$

Note: 4 lb SO₂/hr = [(49 lbmole Sulfur/10⁶ lbmole exhaust) *(lbmole SO₂/lbmole Sulfur) * (64 lb SO₂/lbmole SO₂) * (lbmole exhaust/ 385 ft³ exhaust) * (9000 ft³ exhaust/min) * (60 min/hr)]

Therefore, no monitoring or record keeping will be included on the permit since compliance with the SO₂ limit for the combustion of landfill gas in the enclosed ground flares is established with the annual fuel analysis that is required.

The 140 pounds per hour NO_x limit for any new or expanded combustion unit is applicable to the enclosed ground flares. Compliance with this limit is assured due to the following calculation for the largest of the enclosed ground flares which shows an hourly NO_x emission rate of 5 lbs NO_x/hour (AP-42 Table 13.5-1, *Emission Factors for Flare Operations*, [0.068 lbs NO_x/MMBtu*72 MMBtu/hr = 5 lbs NO_x/hr]).

This value is below the 140 pound per hour NO_x limit allowed in this rule. Therefore, no monitoring/testing or record keeping will be included on the permit to show compliance with the NO_x limit for the combustion of landfill gas in the enclosed ground flares, except annual source tests.

Rule 412 - Sulfur Content of Fuels

This rule which requires that the sulfur content of fuels combusted be less than 50 grains per 100 cubic feet for gaseous fuels (calculated as hydrogen sulfide, H₂S) is applicable to this facility and is in compliance because 4 lb SO₂/hr is approximately 10 grains/100 cubic feet gaseous fuel (as H₂S). Appropriate conditions will be included on the permit to ensure compliance with the provisions of this rule.

Assuming sulfur content of fuel is equal to SO₂ emissions (lb-mole S fuel = lb-mole SO₂ emissions) and SO₂ emissions = 4 lb/hr, then fuel grain content as H₂S is calculated as follows:

$$\begin{aligned} & \frac{4 \text{ lb SO}_2}{\text{hr}} * \frac{\text{lb-mole S}}{\text{lb-mole SO}_2} * \frac{\text{lb-mole SO}_2}{64 \text{ lb SO}_2} * \frac{32 \text{ lb S}}{\text{lb-mole S}} * \frac{7000 \text{ grains S}}{\text{lb S}} = \frac{14000 \text{ gr S}}{\text{hr}} \\ & \frac{14000 \text{ grain S}}{\text{hr}} * \frac{\text{hr}}{60 \text{ min}} * \frac{\text{min}}{2400 \text{ ft}^3} * \frac{10^2 \text{ ft}^3}{100 \text{ ft}^3} * \frac{\text{lb S}}{7000 \text{ gr S}} * \frac{\text{lb-mole}}{32 \text{ lb S}} * \frac{34 \text{ lb H}_2\text{S}}{\text{lb mole}} * \frac{7000 \text{ gr H}_2\text{S}}{\text{lb H}_2\text{S}} \\ & \qquad \qquad \qquad \text{landfill gaseous fuel} \\ & = \frac{10 \text{ grains H}_2\text{S}}{100 \text{ ft}^3 \text{ landfill gaseous fuel}} \end{aligned}$$

Rule 426 - Architectural Coatings

This rule is applicable to all applications of architectural coatings and restricts the VOC content of these coatings. The facility is in compliance with the requirements of this rule.

An appropriate condition will be included on the permit to ensure compliance with the requirements of this rule.

40 CFR Part 60, Subpart A - New Source Performance Standards, General Provisions

This facility is subject to the requirements of this part, as the facility is subject to the requirements of the Landfill NSPS, Subpart WWW. The District asserts that compliance with the conditions on the Title V permit shall be considered compliance with the monitoring, record keeping, and reporting requirements contained in 40 CFR Parts 60.7, 60.8 (with the exception of 60.8(b)), 60.11 (with the exception of 60.11(b) and 60.11(e)), and 60.13 (with the exception of 60.13(a), 60.13(d)(2), 60.13 (g), and 60.13(i)).

40 CFR Part 60, Subpart WWW - New Source Performance Standard (NSPS) for Municipal Solid Waste Landfills

This facility is subject to the requirements of this NSPS. Appropriate conditions will be included on the permit to ensure compliance with the requirements of this NSPS.

Note: The landfill requested in the year 2000 to increase the regulatory requirements of nitrogen less than 20 percent or oxygen less than 5 percent. The historical operation demonstrated that higher limits had not caused fires nor significantly inhibited anaerobic decomposition; therefore, the request was approved to increase nitrogen to less 50 percent or oxygen to less than 12 percent [60.753 (c), *Operational Standards*].

40 CFR Part 60, Subpart AAAA - National Emission Standard for Hazardous Air Pollutants (NESHAP) for Municipal Solid Waste Landfills

This facility is subject to the requirements of this NESHAP. Appropriate conditions will be included on the permit to ensure compliance with the requirements of this NESHAP. In particular, Section 63.1955(c), requires semiannual report submittals.

40 CFR Part 64 - Compliance Assurance Monitoring

The landfill gas collection systems are subject to the requirements of this part due to their potential to emit Volatile Organic Compounds (VOCs) and the use of the enclosed ground flare to control VOC emissions. Note: VOC emissions equal Non-Methane Organic Compounds.

Each of the flares will be indirectly monitored for compliance with the VOC/NMHC emission limits by measuring the temperature in the enclosed ground flares. Previous source tests and operations data show that a minimum temperature in the flare of 1400 °F assures compliance with the VOC/NMOC emission rate from 40 CFR Part 60, Subpart WWW. Continuous temperature data is required to be recorded for the enclosed ground flares during any period of time that the units are operational.

40 CFR Part 68 - Risk Management Planning: Accidental Release Prevention (Section 112r)

This facility is not subject to the requirements of this part. An appropriate condition will be included on the permit to ensure compliance with the Part 68 requirements if the facility were to become subject.

40 CFR Part 82 - Protection of Stratospheric Ozone

This facility is in compliance with the requirements of this part. An appropriate condition will be included on the permit to ensure compliance with these requirements.

THE FOLLOWING WILL BE INCLUDED ON THE TITLE V PERMIT:

FEDERALLY ENFORCEABLE EMISSION LIMITS AND STANDARDS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three (3) minutes in any one (1) hour which is as dark or darker than Ringelmann 1 or equivalent 20% opacity. [District Rule 400]
2. Particulate matter shall not exceed 0.15 grains per standard dry cubic foot in the exhaust streams of the Two (2) Enclosed Ground Flares. [District Rule 403]
3. Sulfur compounds calculated as sulfur dioxide (SO₂) shall not exceed 0.2 percent by volume in the exhaust streams of the Two (2) Enclosed Ground Flares. [District Rule 404]
4. The landfill gas combusted shall contain no more than 50 grains of sulfur compounds (calculated as hydrogen sulfide, H₂S) per 100 cubic feet of gaseous fuel. [District Rule 412]
5. The Salinas Valley Solid Waste Authority shall limit emissions of volatile organic compounds by the use of architectural coatings which comply with the requirements of District Rule 426. [District Rule 426]
6. The Salinas Valley Solid Waste Authority shall cause to be operated a landfill gas collection system that effectively captures the gas generated such that [40 CFR Part 60, Subpart WWW, *Operational Standards*, 60.753]:
 - A) the system is designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas collection system; and
 - B) landfill gas is collected from each area, cell or group of cells in which non-asbestos degradable solid waste has been placed for a period of 5 years or more for active areas or 2 years or more for closed areas; and
 - C) offsite migration of subsurface gas is minimized; and
 - D) each wellhead is under negative pressure except under the following conditions:
 - i) a fire or increased well temperature. The Salinas Valley Solid Waste Authority shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the semiannual reports as provided in condition 40; or
 - ii) use of a geomembrane or synthetic cover. Acceptable pressure limits

shall be submitted by the Salinas Valley Solid Waste Authority in their design plan; or

- iii) a decommissioned well.
 - E) the collected landfill gas temperature is less than 55°C (131°F) at each well with a nitrogen level less than or equal to 50 percent or an oxygen level less than or equal to 12 percent; and
 - F) the surface methane concentration over the landfill shall not exceed 500 ppm above background.
7. The Two (2) Enclosed Ground Flares shall either reduce non-methane organic compounds (NMOC) by 98 weight-percent or reduce the NMOC outlet concentration to less than 20 ppmv, dry basis as hexane at 3% oxygen. [40 CFR Part 60, Subpart WWW, *Standards for Emissions*, 60.752]
 8. The Salinas Valley Solid Waste Authority shall cause one or both of the Two (2) Enclosed Ground Flares to be operated at all times when the collected landfill gas is routed to the Flares. In the event that the gas collection system(s) or the Two (2) Enclosed Ground Flares are inoperable, the gas mover system(s) shall be shut down and all valves in the collection system(s) and Two (2) Enclosed Ground Flares contributing to venting of the gas to the atmosphere shall be closed within 1 hour. [40 CFR Part 60, Subpart WWW, *Operational Standards* , 60.753 (e)]
 9. Conditions 7 and 8 do not apply to the Two (2) Enclosed Ground Flares during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 1 hour. [40 CFR Part 60, Subpart WWW, 60.755(e)]
 10. The Salinas Valley Solid Waste Authority shall cause the Two (2) Enclosed Ground Flares to be equipped with temperature monitoring devices and continuous recorders with the ability to record the average temperature every 15 minutes, and having an accuracy of ± 1 percent of the temperature being measured expressed in degrees Celsius or ± 0.5 °C, whichever is greater. [40 CFR Part 60, Subpart WWW, *Monitoring*, 60.756]
 11. The 3-hour average temperature shall not be 28°C (82 °F) less than the average temperature during the most recent performance testing required under condition 26. [40 CFR Part 60, Subpart WWW, *Recordkeeping*, 60.758(c) (1)(i)]
 12. The Salinas Valley Solid Waste Authority shall install, calibrate and maintain landfill gas flow measuring devices that shall record at least every 15 minutes the landfill gas flow to the Two (2) Enclosed Ground Flares or to the bypass valve if so equipped. [40 CFR Part 60, Subpart WWW, *Monitoring*, 60.756]
 13. If the gas collection system is equipped with a valve to bypass the Two (2) Enclosed Ground Flares, this bypass valve must be in a closed position with a car-seal or a lock-

and-key type configuration. [40 CFR Part 60, Subpart WWW, *Monitoring*, 60.756 (b)(2)]

14. The Salinas Valley Solid Waste Authority shall implement a program to monitor cover integrity and implement cover repairs as necessary on a monthly basis. [40 CFR Part 60, Subpart WWW, *Compliance Provisions*, 60755 (c)(5)]
15. The Salinas Valley Solid Waste Authority shall have in place a Start-up, Shutdown and Malfunction (SSM) Plan according to the provisions of 40 CFR §63.6(e)(3). The SSM Plan shall be maintained at the facility, and be made available to District staff upon request. The SSM Plan is incorporated by reference into this Title V permit. [40 CFR Part 63, Subpart AAAA, 63.1960]
16. The Salinas Valley Solid Waste Authority shall include deviations specified in the Municipal Solid Waste Landfill NESHAP in the semiannual report required by condition 40. Specified deviations include periods when [40 CFR Part 63, NESHAP Subpart AAAA, 63.1965]:
 - A) the enclosed ground flares' temperatures fall below the value established in condition 11 (28 °C or 82 °F less than the average temperature during the most recent performance testing).
 - B) there is an invalid 1-hour measurement during the 3-hour averaging period for determining compliance with condition 11. An invalid 1-hour measurement is defined as less than three 15-minute monitoring periods within the hour.
 - C) the Start-up, Shutdown, and Maintenance Plan is not developed, implemented, or maintained on site.
17. Upon detection of an excursion as defined in condition 30, in which the average flare combustion temperature is less than 1400°F, the Salinas Valley Solid Waste Authority shall restore the emissions unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. [40 CFR Part 64, *Operation of Approved Monitoring*, 64.7]
18. The Salinas Valley Solid Waste Authority shall submit a Compliance Assurance Monitoring Quality Improvement Plan (QIP) to the District as specified in 40 CFR §64.8 if the accumulation of excursions monitored under condition 30, in which the average flare combustion temperature is less than 1400°F, exceeds 5 percent of the pollutant-specific emissions unit's operating time for a reporting period. [40 CFR Part 64, *QIP Requirements*, 64.8]
19. The Salinas Valley Solid Waste Authority shall comply with the requirements of 40 CFR Part 68 - Risk Management Plans. The Salinas Valley Solid Waste Authority shall submit a Risk Management Plan (RMP) if the facility becomes subject to the

requirements of Part 68. [40 CFR Part 68]

20. The Salinas Valley Solid Waste Authority shall comply with the requirements of 40 CFR Part 82 - Protection of Stratospheric Ozone. [40 CFR Part 82]

TESTING REQUIREMENTS AND PROCEDURES

21. No testing is specified for the generic (District Rule 400) opacity requirement from condition 1. The Two (2) Enclosed Ground Flares are assumed to be in compliance with the opacity requirement due to the firing of gaseous fuel. If testing is conducted for condition 1, the Salinas Valley Solid Waste Authority should conduct testing in accordance with the methodology contained in EPA Method 9 and the averaging/aggregating period contained in District Rule 400. [District Rule 218]
22. No testing is specified for the generic (District Rule 403) particulate matter emission standard from condition 2. The Two (2) Enclosed Ground Flares are assumed to be in compliance with the particulate matter emission standard due to the firing of gaseous fuel. If testing is conducted for condition 2, the Salinas Valley Solid Waste Authority should conduct testing in accordance with the methodology contained in EPA Method 5. [District Rule 218]
23. No testing is specified for the generic (District Rule 404) sulfur concentration limit in condition 3. The Two (2) Enclosed Ground Flares are assumed to be in compliance with the sulfur concentration limit based upon the calculations contained in the engineering evaluation. If testing is conducted for condition 3, the Salinas Valley Solid Waste Authority should conduct testing in accordance with the methodology contained in EPA Method 20. [District Rule 218]
24. Annual testing of the landfill gas to determine the sulfur content shall be completed. The Salinas Valley Solid Waste Authority shall conduct testing in accordance with ASTM D 1072, ASTM D 3031, ASTM D 3246 or SCAQMD Method 307 to verify compliance with condition 4. [District Rules 218 and 412]
25. The Salinas Valley Solid Waste Authority shall cause monitoring or testing to be conducted to verify compliance with conditions 6 (well pressure, temperature, oxygen/nitrogen, surface concentration), 13 (closed bypass valve) and 14 (landfill cover integrity and repairs) as follows [40 CFR Part 60, Subpart WWW]:

On a monthly basis:

- A) Monitor the cover integrity, visually inspect the bypass valve to ensure that it is closed, and measure the gage pressure and monitor the temperature and nitrogen or oxygen content at each wellhead. The nitrogen level shall be determined using EPA Method 3C, or the oxygen level shall be determined using EPA Method 3A except that:

- i) the span shall be set so the regulatory limit is between 20 and 50 percent of the span;
- ii) a data recorder is not required;
- iii) only two calibration gases are required, a zero and a span, and ambient air may be used as the span;
- iv) a calibration error check is not required; and
- v) the allowable sample bias, zero drift, and calibration drift are ± 10 percent. [*Operational Standards*, 60.753(c)]

On a quarterly basis:

- B) Monitor the surface concentrations of methane along the entire perimeter of the collection area and along a serpentine pattern within the collection area at 30 meter intervals. [*Compliance Provisions*, 60.755 (c) (1)]

- i) The surface monitoring shall be performed in accordance with section 4.3.1 of EPA Method 21 in Appendix A, except that the probe shall be placed within 5 to 10 centimeters of the ground. [*Compliance Provisions*, 60.755 (c)(3)]
- ii) The portable analyzer shall meet the instrument specifications provided in section 3 of EPA Method 21 except that “methane” shall replace all references to VOC. [*Compliance Provisions*, 60.755 (d)(1)]
- iii) The instrument evaluation procedures in section 4.4 of EPA Method 21 shall be used to meet the performance evaluation requirements of section 3.1.3. [*Compliance Provisions*, 60.755 (d)(3)]
- iv) The calibration procedures provided in section 4.2 of EPA Method 21 shall be followed immediately before commencing a surface monitoring survey [*Compliance Provisions*, 60.755 (d)(4)]
- v) and the calibration gas shall be methane diluted to a nominal concentration of 500 ppm. [*Compliance Provisions*, 60.755 (d)(2)]
- vi) Any reading of 500 ppm or greater above background shall be recorded as a monitored exceedance. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells. A monitored exceedance is not a violation of the operational requirement contained in condition 6. F) as long as the following specified actions are taken:
 - a. The location of each monitored exceedance shall be marked and the location recorded.
 - b. Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-

monitored within 10 calendar days of detecting the exceedance; and

- c. If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in section e. of this condition shall be taken.
- d. Any location that initially showed an exceedance but has a methane concentration less than 500 ppm above background at the 10-day re-monitoring specified in b. or c. above shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 ppm above background, no further monitoring is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in section c. or e. of this condition shall be taken.
- e. For any location where a monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, and a corresponding time line for installation may be submitted to the District for approval.

[Subpart WWW, *Compliance Provisions*, 60.755(c) (4)]

- 26. On an annual basis, the Salinas Valley Solid Waste Authority shall cause testing to be conducted to verify compliance with the NMOC percent reduction or outlet flare concentration requirements specified in condition 7. This testing shall be conducted in accordance with EPA test method 18 or 25. [40 CFR Part 60, Subpart WWW, *Test Methods*, 60.754(d), and District Rule 218]

RECORD KEEPING REQUIREMENTS

- 27. The Salinas Valley Solid Waste Authority shall maintain up-to-date records of the maximum design capacity, the current amount of solid waste in place, the year-by-year waste acceptance rate, and the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from gas collection as provided by §60.759(a)(3)(i) as well as any nonproductive areas excluded from gas collection as provided by §60.759(a)(3)(ii). These records shall be retained on-site or be available within 4 hours if stored off-site. [40 CFR Part 60, Subpart WWW, *Specifications for active collection systems*, 60.759(a)(3)(i) and (ii), *Recordkeeping*, 60.758, *Reporting*, 60.757]
- 28. The Salinas Valley Solid Waste Authority shall maintain readily accessible records for the life of the control equipment, the control device vendor specifications, and the following data as measured during the initial performance test or compliance determination [40 CFR Part 60, Subpart WWW, *Recordkeeping*, 60.758]:

- A) The maximum expected gas generation flow rate as calculated in §60.755(a)(1); and
 - B) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in §60.759(a)(1).
29. The Salinas Valley Solid Waste Authority shall keep for at least 5 years up-to-date, readily accessible continuous records of all data required by condition 25, monitoring or testing of wells and landfill surface. [40 CFR Part 60, Subpart WWW, *Recordkeeping*, 60.758]
30. The Salinas Valley Solid Waste Authority shall maintain the following compliance assurance monitoring as specified below [40 CFR Part 64, CAM]:
- The combustion zone temperature of the enclosed ground flare shall be continuously monitored and recorded during any periods of time that landfill gas is routed to the flare for incineration. An excursion from the monitoring parameter is defined as any period of time that the average combustion zone temperature for the enclosed ground flare is less than 1400 °F. A thermocouple will be utilized for the monitoring.
31. The Salinas Valley Solid Waste Authority shall maintain SSM Plan records as specified in 40 CFR §60.6(e)(3)(iii) and 40 CFR §60.6(e)(3)(iv). [40 CFR Part 63, NESHAP Subpart AAAAA]
32. As applicable the Salinas Valley Solid Waste Authority shall maintain the following general records of required monitoring information [District Rule 218]:
- A) the date and time of sampling or measurements;
 - B) the date(s) analyses were performed;
 - C) the company or entity that performed the analyses;
 - D) the analytical techniques or methods used;
 - E) the results of such analyses;
 - F) the operating conditions existing at the time of sampling or measurement; and
 - G) the records of quality assurance for continuous monitoring systems (including, but not limited to quality control activities, audits, and calibration drift checks) and source testing methods.
33. The Salinas Valley Solid Waste Authority shall maintain records on the occurrence and duration of any start-up, shutdown, or malfunction in the operation of the equipment

under this permit. [District Rule 218]

34. The Salinas Valley Solid Waste Authority shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring, sample collection, measurement, report, and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. [District Rule 218]

REPORTING REQUIREMENTS

35. The Salinas Valley Solid Waste Authority shall report breakdowns which result in the inability to comply with any emission standard or requirement contained on this permit to the Air Pollution Control Officer (APCO) within one (1) hour of the occurrence; this one hour period may be extended up to six (6) hours for good cause by the APCO. The APCO may elect to take no enforcement action if the Salinas Valley Solid Waste Authority demonstrates to the APCO's satisfaction that a breakdown condition exists.

The estimated time for repair of the breakdown shall be supplied to the APCO within twenty-four (24) hours of the occurrence, and a written report shall be supplied to the APCO within five (5) days after the occurrence has been corrected. This report shall include at a minimum [District Rule 214]:

- A) a statement that the condition or failure has been corrected and the date of correction; and
 - B) a description of the reason(s) for the occurrence; and
 - C) a description of the corrective measures undertaken and/or to be undertaken to avoid such an occurrence in the future; and
 - D) an estimate of the emissions caused by the condition or failure.
36. The Salinas Valley Solid Waste Authority shall report to the District any actions not consistent with the Start-up, Shutdown and Malfunction (SSM) Plan. The initial report shall be within two (2) working days via telephone or facsimile, followed by a letter delivered or postmarked within seven (7) working days after the end of the event. The letter shall contain the name, title, and signature of the responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the SSM Plan, and whether any excess emissions and or parameter monitoring exceedances are believed to have occurred. [40 CFR Part 63, Subpart AAAAA]
37. The Salinas Valley Solid Waste Authority shall report any violation of any requirement contained in this permit to the District within 96 hours after such occurrence. The violation report shall include the time intervals, date and magnitude of excess emissions; nature and cause of the excess (if known), corrective actions and preventive measures adopted. [District Rule 218]

38. For protection from enforcement action based upon an emergency, as defined in District Rule 218, the responsible official for the Salinas Valley Solid Waste Authority shall submit to the District relevant evidence which demonstrates [District Rule 218]:
- A) an emergency occurred; and
 - B) that the Salinas Valley Solid Waste Authority can identify the cause(s) of the emergency; and
 - C) that the facility was being properly operated at the time of the emergency; and
 - D) that all steps were taken to minimize the emissions resulting from the emergency; and
 - E) within two (2) working days of the emergency event, the Salinas Valley Solid Waste Authority provided the District with a description of the emergency and any mitigating or corrective actions taken.

39. The Salinas Valley Solid Waste Authority shall submit semiannual monitoring reports to the District, in a District approved format, no later than **August 15** for the period of January 1 through June 30 and no later than **February 15** for the period of July 1 through December 31. [District Rule 218]

These monitoring reports shall include at a minimum:

- A) the time intervals, date and magnitude of excess emissions, nature and cause of the excess (if known), corrective actions and preventative measures adopted; and
 - B) the averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard for the pollutant in question; and
 - C) all information pertaining to any monitoring as required by the permit; and
 - D) a negative declaration specifying when no excess emissions occurred.
40. The Salinas Valley Solid Waste Authority shall submit semiannual reports to the District no later than August 15 for the period of January 1 through June 30 and no later than February 15 for the period of July 1 through December 31, with the following required information [40 CFR Part 60, Subpart WWW (requires annual reporting), 40 CFR Part 63, AAAA, *Standards*, 63.1955 (requires semiannual reporting)]:
- A) the value and length of time for exceedances of applicable parameters monitored as required in condition 6; and
 - B) deviations as specified in condition 16; and

- C) a description and the duration of all periods when the gas stream is diverted from the Two (2) Enclosed Ground Flares; and
- D) a description and the duration of all periods when the Two (2) Enclosed Ground Flares was not operating for any period exceeding 1 hour and the length of time the Two (2) Enclosed Ground Flares were not operating; and
- E) all periods when the collection system was not operating in excess of five days; and
- F) the location and concentration of each exceedance of condition 6. F) as monitored by condition 25. B); and
- G) the date of installation and the location of each well or collection system expansion added pursuant to condition 25. B) vi) e); and
- H) SSM Report as specified in 40CFR §63.10(d)(5)(i).

41. The Salinas Valley Solid Waste Authority shall submit an annual compliance certification report to the District and U.S. EPA, in a District approved format, no later than February 15 for the period of January 1 through December 31 of the preceding year. [District Rule 218]

This report shall include a written statement from the responsible official which certifies the truth, accuracy, and completeness of the report and shall include at a minimum:

- A) identification of each term or condition of the permit that is the basis of the certification; and
- B) the compliance status; and
- C) whether compliance was continuous or intermittent; and
- D) the method(s) used for determining the compliance status of the source, currently and over the reporting period.

42. The Salinas Valley Solid Waste Authority shall submit a closure report to the District within 30 days of waste acceptance cessation. If a closure report has been submitted to the District, no additional wastes may be placed into the landfill without filing a notification of modification as described in 40 CFR §60.7(a)(4). [40 CFR Part 60, Subpart WWW]

43. Any request by the Salinas Valley Solid Waste Authority to no longer be subject to Title V permitting and/or remove collection and control equipment shall be submitted to the District 30 days prior to removal or cessation of operation of the landfill gas control equipment. The request shall contain the following:

- A) A copy of the closure report submitted in accordance with Condition 42; and
- B) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and
- C) Dated copies of three successive emission rate reports demonstrating that the landfill has not produced 50 megagrams or greater of NMOC per year. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

[40 CFR Part 60, Subpart WWW, 60.752 (d) and 60.752 (b)(2)(v)]

GENERAL CONDITIONS

- 44. The Salinas Valley Solid Waste Authority shall comply with all conditions of this federal operating permit. Any noncompliance with a permit condition constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [District Rule 218]
- 45. In an enforcement action, the fact that the Salinas Valley Solid Waste Authority would have to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit is not a defense. [District Rule 218]
- 46. This permit may be modified, revoked, reopened and reissued, or terminated for cause as determined by the District. The filing of a request by the Salinas Valley Solid Waste Authority for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 218]
- 47. This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. [District Rule 218]
- 48. The Salinas Valley Solid Waste Authority shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the Salinas Valley Solid Waste Authority shall also furnish to the District copies of records required to be retained by this permit. [District Rule 218]
- 49. For applicable requirements that will become effective during the permit term, the Salinas Valley Solid Waste Authority shall meet such requirements on a timely basis

unless a more detailed schedule is expressly required by the applicable requirement.
[District Rule 218]

50. Any document submitted to the District pursuant to this permit shall contain certification by the responsible official of truth, accuracy and completeness. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. The Salinas Valley Solid Waste Authority shall promptly, upon discovery, report to the District a material error or omission in these records, reports, plans, or other documents. [District Rule 218]
51. Upon any administrative or judicial challenge, all the emission limits, specific and general conditions, monitoring, record keeping, and reporting requirements of this permit, except those being challenged, remain valid and must be complied with. [District Rule 218]
52. For this federal operating permit to remain valid through the permit term of five years from the date of issuance, the Salinas Valley Solid Waste Authority shall pay an annual emission fee based upon the requirements of District Rule 308. [District Rule 218]
53. The Salinas Valley Solid Waste Authority shall have available at the facility at all times a copy of this federal operating permit. [District Rule 218]
54. Upon presentation of credentials, the Salinas Valley Solid Waste Authority shall allow the District, the ARB, the EPA, or an authorized representative, to perform the following [District Rule 218]:
 - A) enter upon the premises where the federal operating permit source is located or in which any records are required to be kept under the terms and conditions of this federal operating permit;
 - B) to have access to and copy any records required to be kept under the terms and conditions of this federal operating permit;
 - C) to inspect any equipment, operation, or process described or required in this federal operating permit; and,
 - D) to sample emissions from the source.

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