

**TITLE V COMPLIANCE MANUAL
AMERICAN AVENUE LANDFILL
KERMAN, CALIFORNIA**

Submitted to:

County of Fresno
Department Of Public Works and Planning
2220 Tulare Street, 6th Floor
Fresno, California 93721

Prepared by:

SCS ENGINEERS
3711 Long Beach Boulevard
Ninth Floor
Long Beach, California 90807

File No. 01200103.01, Task 16
April 2004

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Appendix A: Monitoring Forms

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Appendix D: (Reserved)

2. OPERATIONAL REQUIREMENTS

Facility-Wide Requirements

- The landfill operator shall not alter or modify the operation or equipment without first obtaining an Authority to Construct (ATC) from the District. (Condition #4)
- Visible emissions from individual point sources on a landfill must not be as dark or darker in shade than the Ringelman #1 or equivalent to 20% opacity, averaged over 3 minutes in any one hour. (#22)
- No architectural coatings, with the exception of specialty coatings, which contain more than 250 grams of VOC per liter, should be used within the District. (#23)
- No person shall apply any specialty coating with a VOC content in excess of the corresponding limit specified in the Table of Standards of Rule 4601. (#24)
- Store all VOC containing material in closed containers when not in use. (#25)
- VOC containing solvents cannot be used for the cleanup of spray equipment unless solvent collection equipment is used and evaporation is minimized. (#26)
- Disposal of appliances, refrigerators, air conditioners, freezers, chillers, coolers, or other equipment that either contains or once contained refrigerants is generally prohibited for the permittee. The Landfill should accept appliances for recycling only. (#29)
- No air contaminant shall be released into the atmosphere that causes a public nuisance. (#40)

Permit Unit Requirements (N-3115-2-3)

Design Conditions:

- All equipment shall be maintained in good operating condition and operated in a manner to minimize emissions of air contaminants into atmosphere. (Condition #6)
- All equipment shall be constructed, calibrated, maintained, and operated in accordance with all data and specifications submitted with the applications under which the permits are issued. (#7)
- The facility shall install and maintain in proper operating condition a gas flow meter with a continuous recorder. (#11)
- The flare shall be equipped with automatic dampers, an automatic shutdown device, and a flame arrester. (#13)
- The flare shall be equipped with a temperature indicator and recorder. (#14)

SUMMARY OF DESIGN CONDITIONS UNDER PERMIT UNIT REQUIREMENTS

Condition	Requirements	Limits
#6	All equipment shall be maintained in good operating condition and operated in a manner to minimize emissions of air contaminants into atmosphere	N/A
#7	All equipment shall be constructed, calibrated, maintained, and operated in accordance with all data and specifications submitted with the applications under which the permits are issued	Specifications and data submitted in the application
#11	The facility shall install and maintain in proper operating condition a gas flow meter with a continuous recorder	AQMD approval on the flow meter and recorder
#13	The flare shall be equipped with automatic dampers, an automatic shutdown device, and a flame arrester	N/A
#14	The flare shall be equipped with a temperature indicator and recorder	AQMD approval on the equipment
#21	Landfill design capacity shall not exceed the specify limits	2,200 tons/day (average) 3,600 tons/day (peak) 1,300,000 tons/year of refuse received 4.6 million cubic meters, or 361 acres of solid waste
#22	The flare shall be equipped with an LPG fired pilot	N/A
#23	Source sampling to determine the compliance status of flare shall be witnessed or authorized by District personnel	Witnessed or authorized by District personnel
#27	Source testing for NOx shall be conducted using CARB Test Method 7E or 100	N/A
#28	Source testing for CO shall be conducted using EPA Test Method 10 or 10B, CARB Methods 1-5 with 10 or CARB Method 100	N/A
#30	VOC emissions shall be measured by EPA Test Method 18, 25 or 25C	N/A

3. SUMMARY OF LANDFILL MONITORING REQUIREMENTS

Continuous

- Monitor flare exhaust gas temperature with the temperature monitoring device and a continuous recorder. (Permit Unit #14)
- Monitor gas flow from the collection system to flare. (Permit Unit #11)
- Implement procedures required for disposal of asbestos containing material and appliances containing ozone-depleting refrigerants. (Facility-Wide #29, #36)

Event Basis

- Control system and individual well shutdowns. (Permit Unit #37)

Note: The landfill shall also implement the site SSM plan for qualifying SSM events

Daily

- Amount of gas flared (gas flow from collection system to the flare). (Permit Unit #11)
- Condensate injection flow rate to the flare. (Permit Unit #12)

Weekly

- Inspection to ensure daily cleanup of dirt and/or mud accumulations on adjacent paved public roads is performed. * (Facility-Wide #33 / Permit Unit #3)
- Inspection to ensure water application on unpaved roads with 75 or more vehicle trips per day to limit VDE opacity to 20% is performed. * (Facility-Wide #34 / Permit Unit #4)
- Inspection of the effectiveness of dust control measures for land preparation activities associated with a landfill construction project, unpaved vehicle parking and equipment storage areas (over 1 acre and more than 75 vehicle trips per day), and bulk material storage and handling activities. * (Facility-Wide #31, #32, #35 / Permit Unit #1, #2, #5)
- Monitor any excess fugitive dust emissions or potential public nuisance due to landfill operations. * (Facility-Wide #40)

Annually

- Flare source testing¹²³ of NOx and CO limits, and NMOC Control Efficiency. (Permit Unit #25, #26)

NOTE:

** Recommended monitoring activities to ensure compliance with¹ associated regulations. The associated regulations do not have any specific monitoring requirements.*

Equipment	Monitoring Action	Schedule	Permit Condition	Reference
	LFG seeping out of the landfill.			
Collection & Control System	Source Testing of NOx, CO, NMOC Control Efficiency	Annually	Permit Unit #25, #26, #27, #28	District Rule 1070, 1081, 2201

^a When monitoring surface methane concentrations for a closed landfill shows no exceedances for three consecutive quarterly monitoring periods, then monitoring can be "skipped" to annual monitoring. Any exceedance of the 500 ppm methane standard returns the landfill to quarterly monitoring.

4. SUMMARY OF RECORD KEEPING REQUIREMENTS

Support Information

- Design Capacity Report, NMOC Emission Rate Reports, Collection and Control System Design Plan, and performance testing data. (40 CFR 60.758(a) & (b))
- Plot map showing each existing and planned well in the gas collection system. (40 CFR 60.758(d))
- Description, location, amount, and placement date of all non-degradable refuse, including asbestos and demolition refuse placed in landfill areas which are excluded from LFG collection and control. (40 CFR 60.758(d)(2))
- Calibration and maintenance records of the LFG collection system. (Facility-Wide #9; Permit Unit #37)
- Copies of Title V reports, SSM reports, NSPS semi-annual reports, deviation reports, etc. (Permit Unit #38)
- Records of the fugitive emission mitigation and monitoring activities as specified in the monitoring summary in Section 3:
 - Identified excessive fugitive dust emission incident & corresponding monitoring or control measures implemented
 - Weekly inspections on the cleaning of accumulated dirt or mud on adjacent paved public roads
 - Weekly inspections on the implementations of water application on unpaved roads; and fugitive dust emission control measures for land preparation activities, unpaved vehicle parking & equipment storage area, and bulk material storage & handling activities
 - Quarterly inspections on perimeter and haul road conditions

(Facility-Wide #31, #32, #33, #34, #35 / Permit Unit #1, #2, #3, #4, #5)

- Records of identified visible emission or nuisance incidents, public complaints, and associated corrective actions taken. (Facility-Wide #22, #40)
- Verifications from the qualified party performing the removal of appliances contained refrigerants onsite for recycle (Facility-Wide #29)
- If the landfill accepts asbestos containing material, waste shipment records will be kept on-site. Records of asbestos location, depth to areas and quantity will be kept on-site. (Facility-Wide #36)

Quarterly

- Records of LFG sulfur content testing (as H₂S) using dragger tubes. If compliance is shown for two consecutive quarters, the testing frequency can be reduced to annual. (Permit Unit #29)
 - Monitoring records of methane concentration at the landfill surface, include:
 - 1) The date, place and time of sampling or measurement
 - 2) The date(s) analyses were performed
 - 3) The company or personnel that performed the analysis
 - 4) The analytical techniques or methods used
 - 5) The results of such analysis
 - 6) The operating conditions at the time of sampling or measurement
- (Permit Unit #34)

Annually

- Year-by-year refuse accumulation rates (40 CFR 60.758(a))
- Current amount of refuse-in-place (40 CFR 60.758(a))
- Source testing results of NO_x, CO, and NMOC Control Efficiency. (Permit Unit #36, #38)

NOTE:

** Recommended record keeping items. The associated record keeping is not mandatory under the facility permit.*

Type of Record	Record Keeping Item	Permit Condition	Reference
Gas Control System: Periods When Operating Parameters Exceeded Limits Set by Most Recent Performance Test	For enclosed flare: Records of all 3-hour periods in which the average combustion temperature was more than 28°C (50°F) below the average combustion temperature measured during the most recent performance test.	Permit Unit #16, #35	§60.758(c)(1)(i)
Gas Collection and Control System: Exceedances of operational standards	Record all values which exceed the operational standards specified in §60.753. Also include the operating value from the next monitoring period and the location of each exceedance: (1) New well installation, (2) Pressure in each extraction well, (3) Nitrogen concentration or oxygen concentration in extracted LFG, (4) Temperature of extracted LFG, (5) Methane concentrations along landfill surface, (6) Collected LFG is routed to control device at all times, note periods when the collection system and/or control device were not operational.	Permit Unit #33, #34, #37	§60.758(e)
MACT Rule Requirements	Implement SSM plan and fill out SSM reporting forms for qualifying events	Not specified in the permit	§63.6(e)(3)

5. SUMMARY OF REPORTING REQUIREMENTS

Emergency Break Down

1. Verbal report or fax to San Joaquin APCD regional compliance office within one hour
Fresno: Tel – (559) 230-5950, Fax – (559) 230-6062
2. If the break down condition cannot be corrected within 24 hours, file an emergency variance.
3. Document the process condition that lead to the break down and corrective actions taken
4. Submit written report (Deviation Reporting Form) within 10 days after the break down condition has been corrected.

(Facility-Wide #1, #2)

Deviation Report

- Submit written report (Deviation Reporting Form) within 10 days after the deviation has been detected to the District's Regional Compliance Office * (Facility-Wide #11)

Semi-Annual Report of Required Monitoring

- Submit TV Form-007 to the District with identifications of all instances of deviations from permit conditions. Reports are due on January 30th & July 30th annually. (Facility-Wide #10, #41)

Annual Compliance Certificate

- Submit TV Form-006 to the District and EPA Regional Office (Due on July 30th).
(Facility-Wide #37, #41)

Semi-Annual NSPS Reporting

- Submit NSPS Semi-Annual Report to the District and EPA Regional Office.

Note: This report shall incorporate the semi-annual SSM report as required under the MACT rule (40 CFR Part 63, Subpart AAAA) adopted on January 16, 2003. Please refer to the landfill's SSM Plan for more information.

Report or Action	Schedule	Reference
Annual Compliance Report	Submit initial report within 180 days of emission collection and control system start-up. The initial annual report shall include the initial performance test report required under §60.8. Report once every 12 months.	§60.757(f) §60.757(g)
Landfill Closure Report	When landfill is no longer accepting refuse and the landfill is considered closed. Submit report within 30 days of refuse acceptance cessation.	§60.757(d)
Control Equipment Removal Report	Submit report within 30 days prior to removal or cessation of control system operations. Controls can be removed after meeting all of these criteria: (1) Landfill Closure Report has been submitted, (2) Control system was operated for at least 15 years, and (3) Three consecutive NMOC Emission Rate Reports with values <50 Mg/yr achieved.	§60.757(e)
Semi-Annual SSM Report	The adoption of the MACT rule will require the annual compliance report to be submitted semi-annually	§63.6(e)(3)

a. The owner/operator may elect to submit an estimate of the NMOC emission rate for the next 5 years in lieu of the annual report if the estimated NMOC emission rate is <50 Mg/yr in each of the 5 years.

* These reports have already been submitted for the American Avenue site. Copies of the reports must be kept on file for a minimum of 5 years.

6. COMPLIANCE SCHEDULE

INITIAL TITLE V PERMIT ISSUANCE DATE: June 30, 2002

Schedule	Compliance Activity	Note
January	Monthly Monitoring Monthly Dust & Visible Emission Checklist* Report of Required Monitoring due	LFG Extraction Wells / Landfill Cover SJVAPCD TV Form-007
February	Monthly Monitoring Monthly Dust & Visible Emission Checklist*	LFG Extraction Wells / Landfill Cover
March	Monthly Monitoring Monthly Dust & Visible Emission Checklist* Quarterly Monitoring	LFG Extraction Wells / Landfill Cover Surface Emission
April	Monthly Monitoring Monthly Dust & Visible Emission Checklist* Semi-Annual NSPS / SSM Report	LFG Extraction Wells / Landfill Cover
May	Monthly Monitoring Monthly Dust & Visible Emission Checklist*	LFG Extraction Wells / Landfill Cover
June	Monthly Monitoring Monthly Dust & Visible Emission Checklist* Quarterly Monitoring Annual Source Test ¹	LFG Extraction Wells / Landfill Cover Surface Emission Permit Unit Condition #25, #26
July	Monthly Monitoring Monthly Dust & Visible Emission Checklist* Report of Required Monitoring due Compliance Certification Report	LFG Extraction Wells / Landfill Cover SJVAPCD TV Form-007 SJVAPCD TV Form-006
August	Monthly Monitoring Monthly Dust & Visible Emission Checklist*	LFG Extraction Wells / Landfill Cover
September	Monthly Monitoring Monthly Dust & Visible Emission Checklist* Quarterly Monitoring	LFG Extraction Wells / Landfill Cover Surface Emission
October	Monthly Monitoring Monthly Dust & Visible Emission Checklist* Semi-Annual NSPS / SSM Report	LFG Extraction Wells / Landfill Cover
November	Monthly Monitoring Monthly Dust & Visible Emission Checklist*	LFG Extraction Wells / Landfill Cover
December	Monthly Monitoring Monthly Dust & Visible Emission Checklist* Quarterly Monitoring	LFG Extraction Wells / Landfill Cover Surface Emission

¹ Source testing is annual within 9 – 12 months from previous test.

* Recommended monitoring activities to ensure compliance with associated regulations. The associated regulations do not have any specific monitoring requirements.

APPENDIX B: REPORTING FORMS

APPENDIX D: (RESERVED)

Title V Compliance Monitoring

Landfill Monthly Dust Control and Emissions Monitoring Checklist

Site: _____

Month of _____ 20____

Prepared by: _____

Page ____ of ____

[illegible]

Compliance monitoring performed in accordance with the site compliance manual

² Designated unpaved roads with over 75 vehicle trips per day in accordance with the site compliance manual

N/C = Non-compliance

Regulation VIII Record Keeping Form

Month: _____

FORM B: For Cleanup of Trackout and Carryout

Project Location: _____ City: _____ Size: _____ (Acres)
Owner: _____ Address _____ City: _____ Zip _____
Contact Person: _____ Title: _____ Phone: () - _____

Sweeping / Cleanup Schedule

Use this form to document the cleanup schedule by entering the time of day cleanup is done.
Mornings = am; Afternoon = pm. Write "end of day" if cleanup is done at the end of the workday. In urban areas, preventing or cleaning-up trackout at construction sites is required immediately if it extends 50 feet or more. Record keeping is required for construction sites subject to Rule 8021, sites that store bulk materials subject to Rule 8031 and vehicle/equipment storage areas subject to Rule 8071.

Week		Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	am							
	pm							
2	am	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	pm							
3	am	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	pm							
4	am	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	pm							
5	am	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	pm							

Title V facilities are required to retain records for five years.

Regulation VIII Record Keeping Form

Month: _____

FORM C: For Permanent / Long Term Dust Controls

Project

Location: _____ City: _____ Size: _____ (Acres)

Owner: _____ Address _____ City: _____ Zip _____

Contact
Person: _____ Title: _____ Phone: () - _____***Permanent Activities***

Describe the types of permanent dust controls implemented, the date, the activity, such as applying an organic dust suppressant, gravel, paving or a trackout control device. Add comments such as the amount used, where used, brand name.

Date	Dust Control Activity Performed (Gravel, paving)	Comments: Type of material, application rate.

Comments: _____

_____***Title V facilities are required to retain records for five years.******Attach product information, maps and other specifications as appropriate unless already addressed in an approved or verified Fugitive PM₁₀ Management Plan.***

Regulation VIII Record Keeping FormMonth: **FORM D: Water Application onto Unpaved Roads & Equipment Areas**

Project Location: _____ Size: _____ Miles or Acres (circle one)
Owner: _____ Address _____ City: _____ Zip _____
Contact Person: _____ Title: _____ Phone: () - _____

Use this form to document water applications at the same or different areas. Use additional forms, as necessary.

Date	Time	Area Treated	Distance, Area, or Gallons Applied

Comments: _____

***Title V facilities are required to retain records for five years.
Attach product information, maps and other specifications as appropriate unless already
addressed in an approved or verified Fugitive PM10 Management Plan.***

AMERICAN AVENUE LANDFILL

LIST OF MONITORING REQUIREMENTS

Continuous

- ☐ Monitor flare exhaust gas temperature with the temperature monitoring device and a continuous recorder
- ☐ Monitor gas flow from the collection system to flare
- ☐ Implement procedures required for disposal of asbestos containing material and appliances containing ozone-depleting refrigerants

Event Basis

- ☐ Control system and individual well shutdowns.

Note: The landfill shall also implement the site SSM plan for qualifying SSM events

Daily

- ☐ Amount of gas flared (gas flow from collection system to the flare)
- ☐ Condensate injection flow rate to the flare

Weekly

- ☐ Inspect adjacent paved public roads to ensure the accumulations of dirt or mud is cleaned *
- ☐ Inspection on the effectiveness of dust control measures of the following: *
 - Land preparation activities associated with a landfill construction project;
 - Unpaved roads with more than 75 vehicle trips per day to limit VDE opacity to 20%
 - Unpaved vehicle parking and equipment storage areas (over 1 acre);
 - Bulk material storage and handling activities / equipment (open vehicle and containers)
- ☐ Monitor any excess fugitive dust emissions or potential public nuisance due to landfill operations. *

Monthly

- ☐ Landfill gas extraction well monitoring:
 - ☐ Gauge pressure monitoring
(Negative value indicates well is operating with a sufficient gas extraction rate)
 - ☐ Nitrogen concentration using Method 3C or oxygen concentration using Method 3A, or equivalent field monitoring device
(Nitrogen concentration values <20 % or oxygen concentration values < 5 % indicate well extraction rates are not causing excessive air infiltration)
 - ☐ LFG temperature in extraction well:
(The temperature should be <55°C (131°F). An elevated LFG temperature is an indicator of subsurface fires and/or aerobic conditions within the landfill.)

If the monitored parameters exceed the above wellhead limits, corrective actions shall be initiated within 5 calendar days, and re-monitored to show corrections to the exceedances within 15 calendar days.

- ☐ Landfill Cover Integrity Inspection

Quarterly

- ☐ Monitor methane concentration at the landfill surface:
(Values >500 ppm above background indicate an exceedance, which must be corrected and re-tested)
- ☐ LFG sulfur content testing (as H₂S) using dragger tubes. If compliance is shown for two consecutive quarters, the testing frequency can be reduced to annual.
- ☐ Monitoring any potential nuisance along the landfill boundaries and to downwind receptors *
- ☐ Inspection perimeter roads and haul roads to ensure the smoothness of the road surfaces to avoid excessive dust accumulations & carryout to public paved roads *

Semi-Annually

- ☐ Monitor any potential visible emission sources related to landfill operation for a period of 1 hours using EPA Method 9. *

Annually

- ☐ Flare source testing of NO_x and CO limits, and NMOC Control Efficiency

Note:

* Recommended monitoring activities to ensure compliance with associated regulations. The associated regulations do not have any specific monitoring requirements.

AMERICAN AVENUE LANDFILL
LIST OF REPORTING REQUIREMENTS

Emergency Breakdown

- ☐ Verbal report or fax to San Joaquin APCD regional compliance office within one hour
Fresno: Tel – (559) 230-5950, Fax – (559) 230-6062
- ☐ File an emergency variance (if the break down condition cannot be corrected within 24 hours)
- ☐ Document the process condition that lead to the break down and corrective actions taken
- ☐ Submit Deviation Reporting Form within 10 days after the break down condition has been corrected

Permit Condition Deviation

- ☐ Submit Deviation Reporting Form to the District's Regional Compliance Office within 10 days after the detection

Semi-Annually

- ☐ Submit TV Form-007 to the District with identifications of all instances of deviations from permit conditions. Report due on January 30th & July 30th annually

Annually

- ☐ Submit TV Form-006 to the District and EPA Regional Office (Due on July 30th)

Semi-Annual NSPS Reporting

- ☐ Submit NSPS Semi-Annual Report to the District and EPA Regional Office

Note: This report shall incorporate the semi-annual SSM report as required under the MACT rule (40 CFR Part 63, Subpart AAAA) adopted on January 16, 2003. Please refer to the landfill's SSM Plan for more information.