

March 23, 2021

Ms. Stacie Dabbs
Merced County Department of Public Works
7040 N. Highway 59
Merced, CA 95348

Re: Notice of Preliminary Decision - Federally Mandated Operating Permit
Facility Number: N-5018
Project Number: N-1192955

Dear Ms. Dabbs:

Enclosed for your review is the District's analysis of Merced County Department of Public Works's application for the Federally Mandated Operating Permit for its Municipal Solid Waste landfill operation at 17173 S. Billy Wright Road, Los Banos, California.

The notice of preliminary decision for this project has been posted on the District's website (www.valleyair.org). After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Federally Mandated Operating Permit. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Nick Peirce, Permit Services Manager, at (209) 557-6400.

Sincerely,



Brian Clements
Director of Permit Services

Enclosures

cc: Courtney Graham, CARB (w/enclosure) via email
cc: Laura Yannayon, EPA (w/enclosure) via EPS

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**SAN JOAQUIN VALLEY
UNIFIED AIR POLLUTION CONTROL DISTRICT**

Proposed Initial TV Engineering Evaluation

**Merced County Department of Public Works
N-5018**

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TITLE V APPLICATION REVIEW Municipal Solid Waste Landfill

Engineer: Jagmeet Kahlon
Date: March 23, 2021

Facility Number: N-5018
Facility Name: Merced County Department of Public Works
Mailing Address: 7040 N Highway 59
Merced, CA 95348

Contact Name: Stacie Dabbs
Title: Executive Director
Phone: (209) 617-2128

Responsible Official: Stacie Dabbs
Title: Executive Director

Project # : N-1192955
Deemed Complete: August 8, 2019

I. PROPOSAL

Merced County Department of Public Works is requesting an initial Title V permit be issued for its existing municipal solid waste landfill – Billy Wright Landfill in Los Banos, California. The applicant has applied for a Title V permit because landfill design capacity exceeded the 2.5 million megagram and 2.5 million cubic meter design capacity thresholds in 40 CFR Part 60 Subpart XXX.

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

II. FACILITY LOCATION

The facility is located at 17173 S Billy Wright Rd, in Los Banos, California.

III. EQUIPMENT LISTING

A detailed facility printout listing all permitted equipment at the facility is shown in **Attachment A**.

A summary of the exempt equipment categories which describe the insignificant activities or equipment at the facility not requiring a permit is shown in **Attachment B**. Note that this equipment is not exempt from facility-wide requirements.

IV. GENERAL PERMIT TEMPLATE USAGE

The applicant has requested to use the following model general permit templates:

A. Template SJV-UM-03 Facility-wide Umbrella

The applicant has requested to utilize template SJV-UM-0-3, Facility Wide Umbrella. Based on the information submitted in the Template Qualification Form, the applicant qualifies for the use of this template.

V. SCOPE OF EPA AND PUBLIC REVIEW

Certain segments of the proposed Operating Permit are based on model general permit templates that have been previously subject to EPA and public review. The terms and conditions from the model general permit templates are included in the proposed permit and are not subject to further EPA and public review.

For permit applications utilizing model general permit templates, public and agency comments on the District's proposed actions are limited to the applicant's eligibility for model general permit template, applicable requirements not covered by the model general permit template, and the applicable procedural requirements for issuance of Title V Operating Permits.

Conditions 1 through 40 in facility-wide permit requirement permit N-5018-0-1 including their underlying applicable requirements originate from template SJV-UM-0-3 and are not subject to further EPA or public review.

VI. APPLICABLE REQUIREMENTS ADDRESSED BY GENERAL PERMIT TEMPLATES

As stated previously, the applicant has proposed to utilize template SJV-UM-0-3, Facility Wide Umbrella. Requirements in the following rules are addressed in the facility-wide umbrella template:

District Rule 1100, Equipment Breakdown
(Amended December 17, 1992)

District Rule 1160, Emission Statements
(Adopted November 18, 1992)

District Rule 2010, Permits Required
(Amended December 17, 1992)

District Rule 2020, Exemptions
(Amended December 20, 2007)

District Rule 2031, Transfer of Permits
(Amended December 17, 1992)

District Rule 2040, Applications
(Amended December 17, 1992)

District Rule 2070, Standards for Granting Applications
(Amended December 17, 1992)

District Rule 2080, Conditional Approval
(Amended December 17, 1992)

District Rule 2520, Federally Mandated Operating Permits
(Amended June 21, 2001) Sections 5.2, 9.1.1, 9.4, 9.5, 9.7, 9.8, 9.9, 9.13.1,
9.13.2, 9.16, and 10.0

District Rule 4101, Visible Emissions
(Amended February 17, 2005)

District Rule 4601, Architectural Coatings
(Amended December 17, 2009)

District Rule 8021, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM₁₀) from Construction, Demolition, Excavation, and Extraction Activities
(Amended August 19, 2004)

District Rule 8031, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM₁₀) from Handling and Storage of Bulk Materials
(Amended August 19, 2004)

District Rule 8041, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM₁₀) from Carryout and Trackout
(Amended August 19, 2004)

District Rule 8051, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM₁₀) from Open Areas
(Amended August 19, 2004)

District Rule 8061, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM₁₀) from Paved and Unpaved Roads
(Amended August 19, 2004)

District Rule 8071, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM₁₀) from Unpaved Vehicle/Equipment Areas
(Amended September 16, 2004)

40 CFR Part 61, Subpart M, National Emission Standard for Asbestos

40 CFR Part 82, Subpart B and F, Stratospheric Ozone

VII. APPLICABLE REQUIREMENTS NOT ADDRESSED BY GENERAL PERMIT TEMPLATES

District Rule 2201, New and Modified Stationary Source Review Rule
(Amended August 15, 2019)

District Rule 2520, Federally Mandated Operating Permits
(Amended August 15, 2019) Sections not addressed by Umbrella Template

District Rule 4102, Nuisance
(Amended February 17, 1992)

40 CFR 60 Subpart Cc – Emission Guidelines and Compliance Timelines for Municipal Solid Waste Landfills

40 CFR Part 62, Subpart GGG, Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction Prior to May 30, 1991 and Have Not Been Modified or Reconstructed Since May 30, 1991

40 CFR Part 60, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification on or After May 30, 1991, but Before July 18, 2014

40 CFR Part 60, Subpart XXX, Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014

40 CFR Part 63, Subpart AAAA, National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills

40 CFR Part 64, Compliance Assurance Monitoring (CAM)

VIII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

For each Title V source, the District issues a single permit that contains the Federally Enforceable requirements, as well as the District-only requirements. The District-only requirements are not a part of the Title V Operating Permits. The terms and conditions that are part of the facility's Title V permit are designated as Federally Enforceable through Title V Permit.

This facility is subject to the following rules that are not currently federally enforceable:

District Rule 4102, Nuisance
(Amended December 17, 1992)

Condition 41 of the requirements for facility wide permit N-5018-0-1 is based on the rule listed above and is not Federally Enforceable through Title V permit.

IX. COMPLIANCE

A. Requirements Addressed by Model General Permit Templates

1. Facility Wide Requirements

The applicant is proposing to use a general permit template to address federally applicable facility-wide requirements. Section IV of template SJV-UM-0-3 includes a demonstration of compliance for all applicable requirements. Template conditions have been added to the facility wide requirements as condition numbers 1 through 40 to assure compliance with these requirements.

B. Requirements Not Addressed by Model General Permit Templates

District Rule 2201, New and Modified Stationary Source Review Rule

The requirements in this rule only trigger for new emission unit(s) or when an existing unit undergoes a modification. Note that an emission unit that was previously exempt from written permits at the time of installation, which becomes subject to the provisions of Rule 2010 (Permits Required) are not subject to Rule 2201 until such time that the emissions unit is modified.

The landfill under this project has been in operation since 1973. The landfill area is comprised of approximately 172.7 acres, of which 101.8 acres are permitted for solid waste disposal. In addition, the landfill has a permitted landfill design capacity of 14.8 million cubic yards (refer to Solid Waste Facility Permit (SWFP) 24-AA-0002 in the application package).

This landfill was issued an In-House Permit to Operate (PTO) on July 31, 2013 under District project N-1130116 for a landfill with a maximum disposal area of 101.8 acres. The in-house Permit to Operate included potential future expansions of the landfill based on the SWFP that was in place at the time the In-House Permit to Operate was issued. The latest construction to take place based on that SWFP commenced on May 15, 2018. Therefore, May 15, 2018 will be conservatively be used as the modification date for the purpose of determining applicability of NSPS and NESHAP requirements.

The landfill's maximum permitted disposal area was not included in the equipment description for the In-House Permit to Operate by error; therefore, it will be added during this renewal to enforce the permitted maximum capacity of the landfill. Note that the permitted landfill's design capacity is above the 2.5 million megagram (Mg) and 2.5 million cubic meter thresholds in 40 CFR Part 60 Subpart XXX; therefore, this landfill is required to obtain a Title V permit.

District Rule 2520, Federally Mandated Operating Permits

Except for the discussion below, the proposed use of a facility-wide template SJV-UM-0-3 covers the requirements of this Rule.

There are no federally applicable GHG requirements for this source. It should be noted that the Mandatory Greenhouse Gas Reporting rule (40 CFR Part 98) is not included in the definition of an applicable requirement within Title V (per 40 CFR 71.2). Therefore, there will be no further discussion of GHG in this evaluation.

40 CFR Part 60, Subpart Cc, Emission Guidelines and Compliance Timelines for Municipal Solid Waste Landfills

This subpart contains emission guidelines and compliance times for the control of certain designated pollutants from certain designated municipal solid waste landfills in accordance with section 111(d) of the Act and subpart B.

Under this subpart, States were required to develop Section 111(d) State plans to implement the emissions guidelines (EG) for existing MSW landfills, that is, those that commenced construction, modification, or reconstruction before May 30, 1991. On September 26, 1997, California Air Resources Board (CARB) submitted the California State Plan for implementing EG. Subsequent to this, CARB submitted amendments to the California State Plan on June 26, 1998; November 9, 1998; and July 14, 1999. The California State Plan did not provide provisions for the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) and therefore does not apply to landfills in the District. Existing landfills in the District are subject to the requirements of the Federal Plan (40 CFR Part 62, Subpart GGG, Nov 8, 1999) until EPA receives and approves the District's portion of the California State Plan.

This landfill has been in operation since 1973. The construction is presumed to have occurred sometime prior to 1973.

Since this landfill commenced construction prior to May 30, 1991, the landfill may be subject to 40 CFR Part 62, Subpart GGG (discussed below).

40 CFR Part 62, Subpart GGG, Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction Prior to May 30, 1991 and Have Not Been Modified or Reconstructed Since May 30, 1991

As stated earlier, the District is considering May 15, 2018 to be the modification date for this landfill. Since this landfill has been modified after the May 30, 1991, this landfill is not subject to the requirements of this subpart.

40 CFR Part 60, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification on or After May 30, 1991, but Before July 18, 2014

As stated earlier, the District is considering May 15, 2018 to be the modification date for this landfill. Since the modification occurred after the July 18, 2014 date in this subpart, the landfill is not subject to the requirements in this subpart.

40 CFR Part 60, Subpart XXX, Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014

§60.760 Applicability, designation of affected source, and delegation of authority.

The provisions of this subpart apply to each municipal solid waste landfill that commenced construction, reconstruction, or modification after July 17, 2014. Physical or operational changes made to an MSW landfill solely to comply with subparts Cc, Cf, or WWW of this part are not considered construction, reconstruction, or modification for the purposes of this section.

As stated earlier, the District is considering May 15, 2018 to be the modification date for this landfill. Since this modification occurred after July 18, 2014, the landfill is subject to the requirements in this subpart.

§60.762 Standards for air emissions from municipal solid waste landfills.

(a) Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume must submit an initial design capacity report to the Administrator as provided in §60.767(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions must be documented and submitted with the report. Submittal of the initial design capacity report fulfills the requirements of this subpart except as provided for in paragraphs (a)(1) and (2) of this section.

(1) The owner or operator must submit to the Administrator an amended design capacity report, as provided for in §60.767(a)(3).

(2) When an increase in the maximum design capacity of a landfill exempted from the provisions of §§60.762(b) through 60.769 on the basis of the design capacity exemption in paragraph (a) of this section results in a revised maximum design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, the owner or operator must comply with the provisions of paragraph (b) of this section.

Per facility's SWFP 24-AA-0002, landfill area is comprised of approximately 172.7 acres, of which 101.8 acres are permitted for solid waste disposal. The landfill design capacity is 14.8 million cubic yards (11.3 million cubic meters). Since the design capacity exceeds the 2.5 million cubic meter capacity, the landfill is subject to the requirements in paragraph (b) below.

(b) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, must either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in §60.764. The NMOC emission rate must be recalculated annually, except as provided in §60.767(b)(1)(ii). The owner or operator of an MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters is subject to part 70 or 71 permitting requirements.

(1) If the calculated NMOC emission rate is less than 34 megagrams per year, the owner or operator must:

(i) Submit an annual NMOC emission rate emission report to the Administrator, except as provided for in §60.767(b)(1)(ii); and

(ii) Recalculate the NMOC emission rate annually using the procedures specified in §60.764(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 34 megagrams per year, or the landfill is closed.

(A) If the calculated NMOC emission rate, upon initial calculation or annual recalculation required in paragraph (b) of this section, is equal to or greater than 34 megagrams per year, the owner or operator must either: Comply with paragraph (b)(2) of this section; calculate NMOC emissions using the next higher tier in §60.764; or conduct a surface emission monitoring demonstration using the procedures specified in §60.764(a)(6).

(B) If the landfill is permanently closed, a closure report must be submitted to the Administrator as provided for in §60.767(e).

(2) If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator must either:

(i) Calculated NMOC Emission Rate. Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year as specified in §60.767(c); calculate NMOC emissions using the next higher tier in §60.764; or conduct a surface emission monitoring demonstration using the procedures specified in §60.764(a)(6). The collection and control system must meet the requirements in paragraphs (b)(2)(ii) and (iii) of this section.

(ii) Collection system. Install and start up a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(C) or (D) and (b)(2)(iii) of this section within 30 months after:

(A) The first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in §60.767(c)(4); or

(B) The most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in §60.767(c)(4)(iii).

(C) An active collection system must:

(1) Be 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 control system equipment;

(2) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more if active; or 2 years or more if closed or at final grade.

(3) Collect gas at a sufficient extraction rate;

(4) Be designed to minimize off-site migration of subsurface gas.

(D) A passive collection system must:

(1) Comply with the provisions specified in paragraphs (b)(2)(ii)(C)(1), (2), and (3) of this section.

(2) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners must be installed as required under 40 CFR 258.40.

(iii) Control system. Route all the collected gas to a control system that complies with the requirements in either paragraph (b)(2)(iii)(A), (B), or (C) of this section.

- (A) A non-enclosed flare designed and operated in accordance with the parameters established in §60.18 except as noted in §60.764(e); or
 - (B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume must be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in §60.764(d). The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this subpart.
 - (1) If a boiler or process heater is used as the control device, the landfill gas stream must be introduced into the flame zone.
 - (2) The control device must be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in §60.766;
 - (C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to either paragraph (b)(2)(iii)(A) or (B) of this section.
 - (D) All emissions from any atmospheric vent from the gas treatment system are subject to the requirements of paragraph (b)(2)(iii)(A) or (B) of this section. For purposes of this subpart, atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of paragraph (b)(2)(iii)(A) or (B) of this section.
- (iv) Operation. Operate the collection and control device installed to comply with this subpart in accordance with the provisions of §§60.763, 60.765, and 60.766; or the provisions of §§63.1958, 63.1960, and

63.1961 of this chapter. Once the owner or operator begins to comply with the provisions of §§63.1958, 63.1960, and 63.1961 of this chapter, the owner or operator must continue to operate the collection and control device according to those provisions and cannot return to the provisions of §§60.763, 60.765, and 60.766.

(v) Removal criteria. The collection and control system may be capped, removed, or decommissioned if the following criteria are met:

(A) The landfill is a closed landfill (as defined in §60.761). A closure report must be submitted to the Administrator as provided in §60.767(e).

(B) The collection and control system has been in operation a minimum of 15 years or the landfill owner or operator demonstrates that the GCCS will be unable to operate for 15 years due to declining gas flow.

(C) Following the procedures specified in §60.764(b), the calculated NMOC emission rate at the landfill is less than 34 megagrams per year on three successive test dates. The test dates must be no less than 90 days apart, and no more than 180 days apart.

The following requirements will be included in the permit:

- The owner or operator shall calculate the NMOC emission rate from the landfill using the procedures in 40 CFR 60.764(a)(1). The NMOC emission rate must be recalculated annually, except as provided in 40 CFR 60.767(b)(1)(ii). [40 CFR 60.752(b)]
- If the calculated NMOC emission rate is less than 34 megagrams per year, the owner or operator must: (A) Submit an annual NMOC emission rate emission report to the District, except as provided for in section 60.767(b)(1)(ii); and (B) Recalculate the NMOC emission rate annually using the procedures specified in §60.764(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 34 megagrams per year, or the landfill is closed. [40 CFR 60.752(b)(1)]

- If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator must either: Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year as specified in 40 CFR60.767(c); calculate NMOC emissions using the next higher tier in 40 CFR 60.764; or conduct a surface emission monitoring demonstration using the procedures specified in 40 CFR60.764(a)(6). The collection and control system must meet the requirements in paragraphs 40 CFR 60.762(b)(2)(ii) and (iii). [40 CFR 60.752(b)(2)]

(c) For purposes of obtaining an operating permit under title V of the Clean Air Act, the owner or operator of an MSW landfill subject to this subpart with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters is not subject to the requirement to obtain an operating permit for the landfill under part 70 or 71 of this chapter, unless the landfill is otherwise subject to either part 70 or 71. For purposes of submitting a timely application for an operating permit under part 70 or 71, the owner or operator of an MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters, and not otherwise subject to either part 70 or 71, becomes subject to the requirements of §70.5(a)(1)(i) or §71.5(a)(1)(i) of this chapter, regardless of when the design capacity report is actually submitted, no later than:

(1) November 28, 2016 for MSW landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016;

(2) Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction after August 29, 2016.

The design capacity of this landfill exceeds the threshold of 2.5 million cubic meter. Consequently, this facility is required to obtain a Title V permit.

(d) When an MSW landfill subject to this subpart is closed as defined in this subpart, the owner or operator is no longer subject to the requirement to maintain an operating permit under part 70 or 71 of this chapter for the landfill if the landfill is not otherwise subject to the requirements of either part 70 or 71 and if either of the following conditions are met:

(1) The landfill was never subject to the requirement for a control system under paragraph (b)(2) of this section; or

(2) The owner or operator meets the conditions for control system removal specified in paragraph (b)(2)(v) of this section.

This landfill is an active MSW landfill. At this time, the facility is required to maintain an operating Title V permit.

§60.763 Operational standards for collection and control systems.

Each owner or operator of an MSW landfill with a gas collection and control system used to comply with the provisions of §60.762(b)(2) must:

(a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:

- (1) 5 years or more if active; or
- (2) 2 years or more if closed or at final grade;

(b) Operate the collection system with negative pressure at each wellhead except under the following conditions:

- (1) A fire or increased well temperature. The owner or operator must record instances when positive pressure occurs in efforts to avoid a fire. These records must be submitted with the annual reports as provided in §60.767(g)(1);
- (2) Use of a geomembrane or synthetic cover. The owner or operator must develop acceptable pressure limits in the design plan;
- (3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes must be approved by the Administrator as specified in §60.767(c);

(c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator may establish a higher operating temperature value at a particular well. A higher operating value demonstration must be submitted to the Administrator for approval and must include supporting data demonstrating that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens. The demonstration must satisfy both criteria in order to be approved (*i.e.*, neither causing fires nor killing methanogens is acceptable).

(d) Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator must conduct surface testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in §60.765(d). The owner or operator must conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations. Thus, the owner or operator must monitor any openings that are within an area of the landfill where waste has been placed and a gas collection system is required. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan must be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

(e) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with §60.762(b)(2)(iii). In the event the collection or control system is not operating, the gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within 1 hour of the collection or control system not operating; and

(f) Operate the control system at all times when the collected gas is routed to the system.

(g) If monitoring demonstrates that the operational requirements in paragraphs (b), (c), or (d) of this section are not met, corrective action must be taken as specified in §60.765(a)(3) and (5) or (c). If corrective actions are taken as specified in §60.765, the monitored exceedance is not a violation of the operational requirements in this section.

The requirements under this section are related to the landfills that have gas collection and control system or are proposing to install a new collection and control system under this subpart. This landfill does not have a collection and control system, nor one is required under this subpart at this time. Therefore, no further discussion is required.

§60.764 Test methods and procedures.

(a)(1) NMOC Emission Rate - The landfill owner or operator must calculate the NMOC emission rate using either Equation 1 provided in paragraph (a)(1)(i) of this section or Equation 2 provided in paragraph (a)(1)(ii) of this section. Both Equation 1 and Equation 2 may be used if the actual year-to-year solid waste acceptance rate is known, as specified in paragraph (a)(1)(i) of this section, for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in paragraph (a)(1)(ii) of this section, for part of the life of the landfill. The values to be used in both Equation 1 and Equation 2 are 0.05 per year for k , 170 cubic meters per megagram for L_0 , and 4,000 parts per million by volume as hexane for the CNMOC. For landfills located in geographical areas with a 30-year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.

(i)(A) Equation 1 must be used if the actual year-to-year solid waste acceptance rate is known.

$$M_{NMOC} = \sum_{i=1}^n 2 k L_0 M_i (e^{-kt_i}) (C_{NMOC}) (3.6 \times 10^{-9})$$

Where:

M_{NMOC} = Total NMOC emission rate from the landfill, megagrams per year.

k = Methane generation rate constant, year⁻¹.

L_0 = Methane generation potential, cubic meters per megagram solid waste.

M_i = Mass of solid waste in the i th section, megagrams.

t_i = Age of the i th section, years.

CNMOC = Concentration of NMOC, parts per million by volume as hexane.

3.6×10^{-9} = Conversion factor.

(i)(B) The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for M_i if documentation of the nature and amount of such wastes is maintained.

(ii)(A) Equation 2 must be used if the actual year-to-year solid waste acceptance rate is unknown.

$$M_{\text{NMOC}} = 2L_o R (e^{-kc} - e^{-kt}) C_{\text{NMOC}} (3.6 \times 10^{-9})$$

Where:

M_{NMOC} = Mass emission rate of NMOC, megagrams per year.

L_o = Methane generation potential, cubic meters per megagram solid waste.

R = Average annual acceptance rate, megagrams per year.

k = Methane generation rate constant, year⁻¹.

t = Age of landfill, years.

C_{NMOC} = Concentration of NMOC, parts per million by volume as hexane.

c = Time since closure, years; for active landfill $c = 0$ and $e^{-kc} = 1$.

3.6×10^{-9} = Conversion factor.

(ii)(B) The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value of R , if documentation of the nature and amount of such wastes is maintained.

The following condition will be included in the permit:

- NMOC emission rate shall be calculated using the Equation 1 in 40 CFR 60.764(a)(1)(i)(A), if the actual year-to-year solid waste acceptance rate is known or the Equation 2 in 40 CFR 60.764(a)(1)(ii)(A), if the actual year-to-year solid waste acceptance rate is unknown. The values for k , L_o , and C_{NMOC} for both equations shall be taken from 40 CFR 60.764(a)(1), as appropriate. Both equations may be used if the actual year-to-year acceptance

rate is known for a part of the landfill life, but unknown for another part of the landfill life. The mass of nondegradable solid waste may be subtracted from the average annual acceptance rate when calculating M_i or R , as appropriate, if documentation of the nature and amount of such wastes is maintained. [40 CFR 60.764(a)(1)]

(2) Tier 1. The owner or operator must compare the calculated NMOC mass emission rate to the standard of 34 megagrams per year.

(i) If the NMOC emission rate calculated in paragraph (a)(1) of this section is less than 34 megagrams per year, then the landfill owner or operator must submit an NMOC emission rate report according to §60.767(b), and must recalculate the NMOC mass emission rate annually as required under §60.762(b).

(ii) If the calculated NMOC emission rate as calculated in paragraph (a)(1) of this section is equal to or greater than 34 megagrams per year, then the landfill owner must either:

(A) Submit a gas collection and control system design plan within 1 year as specified in §60.767(c) and install and operate a gas collection and control system within 30 months according to §60.762(b)(2)(ii) and (iii);

(B) Determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the Tier 2 procedures provided in paragraph (a)(3) of this section; or

(C) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the Tier 3 procedures provided in paragraph (a)(4) of this section.

The following condition will be included in the permit:

- If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year, then the landfill owner or operator must either:
(A) Submit a collection and control design plan within 1 year as specified in 40 CFR60.767(c) and install and operate a gas collection and control system within 30 months of the determination in accordance with 40 CFR60.762(b)(2)(ii) and (iii); (B) Determine a site-specific NMOC concentration and recalculate the NMOC emission rate using Tier 2 procedures provided in 40 CFR 60.764(a)(3); or (C) Determine site-specific methane generation rate constant and re-

calculate the NMOC emission rate using the Tier 3 procedures provided in specifications 40 CFR 60.764(a)(4). [40 CFR 60.764(a)(2)(ii)]

- (3) Tier 2. The landfill owner or operator must determine the site-specific NMOC concentration using the following sampling procedure. The landfill owner or operator must install at least two sample probes per hectare, evenly distributed over the landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The probes should be evenly distributed across the sample area. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator must collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25 or 25C of appendix A of this part. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If more than the required number of samples are taken, all samples must be used in the analysis. The landfill owner or operator must divide the NMOC concentration from Method 25 or 25C of appendix A of this part by six to convert from CNMOC as carbon to CNMOC as hexane. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe. The sample location on the common header pipe must be before any gas moving, condensate removal, or treatment system equipment. For active collection systems, a minimum of three samples must be collected from the header pipe.

(i) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results according to §60.767(i)(1).

(ii) The landfill owner or operator must recalculate the NMOC mass emission rate using Equation 1 or Equation 2 provided in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using the average site-specific NMOC concentration from the collected samples instead of the default value provided in paragraph (a)(1) of this section.

(iii) If the resulting NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator must submit a periodic estimate of NMOC emissions in an NMOC emission rate report according to §60.767(b)(1), and must recalculate the NMOC mass emission rate annually as required under §60.762(b). The site-specific NMOC concentration must be retested every 5 years using the methods specified in this section.

(iv) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is equal to or greater than 34 megagrams per year, the landfill owner or operator must either:

(A) Submit a gas collection and control system design plan within 1 year as specified in §60.767(c) and install and operate a gas collection and control system within 30 months according to §60.762(b)(2)(ii) and (iii);

(B) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the Tier 3 procedures specified in paragraph (a)(4) of this section; or

(C) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in paragraph (a)(6) of this section.

The following conditions will be included in the permit:

- Tier 2 procedure to determine the site-specific NMOC concentration shall include the following sampling procedure: 1) The landfill owner or operator must install at least two sample probes per hectare, evenly distributed over the landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The probes should be evenly distributed across the sample area. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator must collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration, using EPA Method 25 or 25C of Appendix A to 40 CFR Part 60, or any other alternative method as long

as the method has been approved by the District and EPA. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If more than the required number of samples are taken, all samples must be used in the analysis. The landfill owner or operator must divide the NMOC concentration from Method 25 or 25C of Appendix A of 40 CFR Part 60 by six to convert from CNMOC as carbon to C_{NMOC} as hexane. 2) If the landfill has an active or passive gas removal system in place, Method 25 or 25C, or alternative approved method samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe. The sample location on the common header pipe must be before any gas moving, condensate removal, or treatment system equipment. For active collection systems, a minimum of three samples must be collected from the header pipe. [40 CFR 60.764(a)(3) and 40 CFR 60.764(a)(5)]

- For Tier 2 procedure, the owner or operator shall submit the results within 60 days after the date of completing each performance test. [40 CFR 60.764(a)(3)(i) and 40 CFR 60.767(i)(1)]
- For Tier 2 procedure, the owner or operator must recalculate the NMOC mass emission rate using Equation 1 or Equation 2 provided in 40 CFR 60.764(a)(1)(i) or (a)(1)(ii) of this section and using the average site-specific NMOC concentration from the collected samples instead of the default value provided in 40 CFR 60.764(a)(1). [40 CFR 60.764(a)(3)(ii)]
- For Tier 2 procedure, if the resulting NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator must submit a periodic estimate of NMOC emissions in an NMOC emission rate report according to 40 CFR 60.767(b)(1), and must recalculate the NMOC mass emission rate annually as required under 40 CFR 60.762(b), except as provided in 40 CFR 60.767(b)(1)(ii). The site-specific NMOC

concentration must be retested every 5 years using the methods specified in 40 CFR 60.764(a)(3). [40 CFR 60.764(a)(3)(iii)]

- If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is equal to or greater than 34 megagrams per year, the landfill owner or operator must either: (A) Submit a gas collection and control system design plan within 1 year as specified in 40 CFR 60.767(c) and install and operate a gas collection and control system within 30 months of the determination in accordance with 40 CFR 60.762(b)(2)(ii) and (iii); (B) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the Tier 3 procedures specified in paragraph (a)(4) of this section; or (C) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in 40 CFR 60.764(a)(6). [40 CFR 60.764(a)(3)(iv)]

- (4) Tier 3. The site-specific methane generation rate constant must be determined using the procedures provided in Method 2E of appendix A of this part. The landfill owner or operator must estimate the NMOC mass emission rate using Equation 1 or Equation 2 in paragraph (a)(1)(i) or (ii) of this section and using a site-specific methane generation rate constant, and the site-specific NMOC concentration as determined in paragraph (a)(3) of this section instead of the default values provided in paragraph (a)(1) of this section. The landfill owner or operator must compare the resulting NMOC mass emission rate to the standard of 34 megagrams per year.

(i) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration and Tier 3 site-specific methane generation rate is equal to or greater than 34 megagrams per year, the owner or operator must either:

(A) Submit a gas collection and control system design plan within 1 year as specified in §60.767(c) and install and operate a gas collection and control system within 30 months according to §60.762(b)(2)(ii) and (iii); or

(B) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in paragraph (a)(6) of this section.

(ii) If the NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator must recalculate the NMOC mass emission rate annually using Equation 1 or Equation 2 in paragraph (a)(1) of this section and using the site-specific Tier 2 NMOC

concentration and Tier 3 methane generation rate constant and submit a periodic NMOC emission rate report as provided in §60.767(b)(1). The calculation of the methane generation rate constant is performed only once, and the value obtained from this test must be used in all subsequent annual NMOC emission rate calculations.

The following condition will be included in the permit:

- For Tier 3 procedure, the site-specific methane generation rate constant must be determined using the procedures provided in Method 2E of Appendix A of 40 CFR Part 60 or any other alternative method as long as the method has been approved by the District and EPA. [40 CFR 60.764(a)(4) and 40 CFR 60.764(a)(5)]
- For Tier 3 procedure, the landfill owner or operator must estimate the NMOC mass emission rate using Equation 1 or Equation 2 in paragraph 40 CFR 60.764(a)(1)(i) or (ii) and using a site-specific methane generation rate constant, and the site-specific NMOC concentration as determined in paragraph 40 CFR 60.764(a)(3) of instead of the default values provided in paragraph 40 CFR 60.764(a)(1). [40 CFR 60.764(a)(4)]
- For Tier 3 procedure, if the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration and Tier 3 site-specific methane generation rate is equal to or greater than 34 megagrams per year, the owner or operator must either: (A) Submit a gas collection and control system design plan within 1 year as specified in 40CFR60.767(c) and install and operate a gas collection and control system within 30 months of that determination in accordance with 40 CFR 60.762(b)(2)(ii) and (iii); or (B) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in 40 CFR 60.764(a)(6) of this section. [40 CFR 60.764(a)(4)(i)]
- For Tier 3 procedure, if the NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator must recalculate the NMOC mass emission rate annually using Equation 1 or Equation 2 in paragraph 40 CFR 60.764(a)(1) and using the site-specific Tier 2 NMOC concentration and Tier 3 methane generation rate constant and submit a periodic NMOC emission rate report as provided in 40 CFR 60.767(b)(1). The calculation of the methane generation rate constant is performed only once, and the value obtained from this test must be used in all subsequent annual NMOC emission rate calculations. [40 CFR 60.764(a)(4)(ii)]

- (5) Other methods. The owner or operator may use other methods to determine the NMOC concentration or a site-specific methane generation rate constant as an alternative to the methods required in paragraphs (a)(3) and (4) of this section if the method has been approved by the Administrator.

Use of alternative methods is allowed in the above conditions under section under paragraphs (a)(3) and (4), as long as, such methods has been approved by the District and the EPA. No alternative methods are requested under this project.

- (6) Tier 4. The landfill owner or operator must demonstrate that surface methane emissions are below 500 parts per million. Surface emission monitoring must be conducted on a quarterly basis using the following procedures. Tier 4 is allowed only if the landfill owner or operator can demonstrate that NMOC emissions are greater than or equal to 34 Mg/yr but less than 50 Mg/yr using Tier 1 or Tier 2. If both Tier 1 and Tier 2 indicate NMOC emissions are 50 Mg/yr or greater, then Tier 4 cannot be used. In addition, the landfill must meet the criteria in paragraph (a)(6)(viii) of this section.

(i) The owner or operator must measure surface concentrations of methane along the entire perimeter of the landfill and along a pattern that traverses the landfill at no more than 30-meter intervals using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in §60.765(d).

(ii) The background concentration must be determined by moving the probe inlet upwind and downwind at least 30 meters from the waste mass boundary of the landfill.

(iii) Surface emission monitoring must be performed in accordance with section 8.3.1 of Method 21 of appendix A of this part, except that the probe inlet must be placed no more than 5 centimeters above the landfill surface; the constant measurement of distance above the surface should be based on a mechanical device such as with a wheel on a pole, except as described in paragraph (a)(6)(iii)(A) of this section.

(A) The owner or operator must use a wind barrier, similar to a funnel, when onsite average wind speed exceeds 4 miles per hour or 2 meters per second or gust exceeding 10 miles per hour. Average on-site wind speed must also be determined in an open area at 5-minute intervals using an on-site anemometer with a continuous recorder and data logger for the entire duration of the

monitoring event. The wind barrier must surround the SEM monitor, and must be placed on the ground, to ensure wind turbulence is blocked. SEM cannot be conducted if average wind speed exceeds 25 miles per hour.

(B) Landfill surface areas where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover, and all cover penetrations must also be monitored using a device meeting the specifications provided in §60.765(d).

(iv) Each owner or operator seeking to comply with the Tier 4 provisions in paragraph (a)(6) of this section must maintain records of surface emission monitoring as provided in §60.768(g) and submit a Tier 4 surface emissions report as provided in §60.767(c)(4)(iii).

(v) If there is any measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must submit a gas collection and control system design plan within 1 year of the first measured concentration of methane of 500 parts per million or greater from the surface of the landfill according to §60.767(c) and install and operate a gas collection and control system according to §60.762(b)(2)(ii) and (iii) within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2.

(vi) If after four consecutive quarterly monitoring periods at a landfill, other than a closed landfill, there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must continue quarterly surface emission monitoring using the methods specified in this section.

(vii) If after four consecutive quarterly monitoring periods at a closed landfill there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must conduct annual surface emission monitoring using the methods specified in this section.

(viii) If a landfill has installed and operates a collection and control system that is not required by this subpart, then the collection and control system must meet the following criteria:

(A) The gas collection and control system must have operated for 6,570 out of 8,760 hours preceding the Tier 4 surface emissions monitoring demonstration.

(B) During the Tier 4 surface emissions monitoring demonstration, the gas collection and control system must operate as it normally would to collect and control as much landfill gas as possible.

The following conditions will be included in the permit:

- For Tier 4, the landfill owner or operator must demonstrate surface methane emissions are below 500 parts per million. Surface emission monitoring must be conducted on a quarterly basis using the procedures in 40 CFR 60.764(a)(6). Tier 4 is allowed only if the landfill owner or operator can demonstrate that NMOC emissions are greater than or equal to 34 Mg/yr but less than 50 Mg/yr using Tier 1 or Tier 2. If both Tier 1 and Tier 2 indicate NMOC emissions are 50 Mg/yr or greater, then Tier 4 cannot be used. In addition, the landfill must meet the criteria in 40 CFR 60.764(a)(6)(viii). [40 CFR 60.764(a)(6)]
- For Tier 4, surface emission monitoring must be conducted on a quarterly basis using the following procedures: (i) The owner or operator must measure surface concentrations of methane along the entire perimeter of the landfill and along a pattern that traverses the landfill at no more than 30-meter intervals using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in section 60.765(d); (ii) The background concentration must be determined by moving the probe inlet upwind and downwind at least 30 meters from the waste mass boundary of the landfill; (iii) Surface emission monitoring must be performed in accordance with section 8.3.1 of Method 21 of Appendix A of 40 CFR Part 60, except that the probe inlet must be placed no more than 5 centimeters above the landfill surface; the constant measurement of distance above the surface should be based on a mechanical device such as with a wheel on a pole, except as described in paragraph 40 CFR 60.764 (a)(6)(iii)(A). (A) The owner or operator must use a wind barrier, similar to a funnel, when onsite average wind speed exceeds 4 miles per hour or 2 meters per second or gust exceeding 10 miles per hour. Average on-site wind speed must also be determined in an open area at 5-minute intervals using an on-site anemometer with a continuous recorder and data logger for the entire duration of the monitoring event. The wind barrier must surround the surface emission monitor, and must be placed on the ground, to ensure wind turbulence is blocked. Surface emission monitor cannot be conducted if average wind speed exceeds 25 miles per hour. (B) Landfill surface areas where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover, and all

cover penetrations must also be monitored using a device meeting the specifications provided in section 60.765(d). [40 CFR 60.764(a)(6)(i), (ii) and (iii)]

- For Tier 4, the owner or operator seeking to comply with the Tier 4 provisions in paragraph 40 CFR 60.764(a)(6) must maintain records of surface emission monitoring as provided in 40 CFR 60.768(g) and submit a Tier 4 surface emissions report as provided in 40 CFR 60.767(c)(4)(iii). [40 CFR 60.764(a)(6)(iv)]
- For Tier 4, if there is any measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must submit a gas collection and control system design plan within 1 year of the first measured concentration of methane of 500 parts per million or greater from the surface of the landfill according to 40 CFR 60.767(c) and install and operate a gas collection and control system according to 40 CFR 60.762(b)(2)(ii) and (iii) within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2. [40 CFR 60.764(a)(6)(v)]
- For Tier 4, if after four consecutive quarterly monitoring periods at a landfill, other than a closed landfill, there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must continue quarterly surface emission monitoring using the methods specified in 40 CFR 60.764(a)(6). [40 CFR 60.764(a)(6)(vi)]
- For Tier 4, if after four consecutive quarterly monitoring periods at a closed landfill there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must conduct annual surface emission monitoring using 40 CFR 60.764(a)(6). [40 CFR 60.764(a)(6)(vii)]
- For Tier 4, if a landfill has installed and operates a collection and control system that is not required by this subpart, then the collection and control system must meet the following criteria: (A) The gas collection and control system must have operated for 6,570 out of 8,760 hours preceding the Tier 4 surface emissions monitoring demonstration; (B) During the Tier 4 surface emissions monitoring demonstration, the gas collection and control system must operate as it normally would to collect and control as much landfill gas as possible. [40 CFR 60.764(a)(6)(viii)]

(b) After the installation and startup of a collection and control system in compliance with this subpart, the owner or operator must calculate the NMOC emission rate for purposes of determining when the system can be capped, removed or decommissioned as provided in §60.762(b)(2)(v), using Equation 3.

This landfill does not have a collection and control system, nor one is required under this subpart at this time. Therefore, no further discussion is required.

(c) When calculating emissions for Prevention of Significant Deterioration purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart must estimate the NMOC emission rate for comparison to the Prevention of Significant Deterioration major source and significance levels in §§51.166 or 52.21 of this chapter using Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources (AP-42) or other approved measurement procedures.

The District practice is to use EPA's LandGEM (Landfill Gas Emission Model) to predict the maximum potential emissions from a landfill. These emissions are compared to the PSD thresholds to evaluate requirements for the source.

(d) For the performance test required in §60.762(b)(2)(iii)(B), Method 25 or 25C (Method 25C may be used at the inlet only) of appendix A of this part must be used to determine compliance with the 98 weight-percent efficiency or the 20 parts per million by volume outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by §60.767(c)(2). Method 3, 3A, or 3C must be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane), Method 25A should be used in place of Method 25. Method 18 may be used in conjunction with Method 25A on a limited basis (compound specific, e.g., methane) or Method 3C may be used to determine methane. The methane as carbon should be subtracted from the Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon. The landowner or operator must divide the NMOC concentration as carbon by 6 to convert from the CNMOC as carbon to CNMOC as hexane. Equation 4 must be used to calculate efficiency.

The requirements under this section are related to the landfills that have gas collection and control system or are proposing to install a new collection and control system under this subpart. This landfill does not have a collection and control system, nor one is required under this subpart at this time. Therefore, no further discussion is required.

(e) For the performance test required in §60.762(b)(2)(iii)(A), the net heating value of the combusted landfill gas as determined in §60.18(f)(3) is calculated from the concentration of methane in the landfill gas as measured by Method 3C. A minimum of three 30-minute Method 3C samples are determined. The measurement of other organic components, hydrogen, and carbon monoxide is not applicable. Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under §60.18(f)(4).

(1) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results of the performance tests, including any associated fuel analyses, required by §60.764(b) or (d) according to §60.767(i)(1).

The requirements under this section are related to the landfills that have gas collection and control system or are proposing to install a new collection and control system under this subpart. This landfill does not have a collection and control system, nor one is required under this subpart at this time. Therefore, no further discussion is required.

§60.765 Compliance provisions.

(a) Except as provided in §60.767(c)(2), the specified methods in paragraphs (a)(1) through (6) of this section must be used to determine whether the gas collection system is in compliance with §60.762(b)(2)(ii).

The requirements under this section are related to the landfills that have gas collection and control system or are proposing to install a new collection and control system under this subpart. This landfill does not have a collection and control system, nor one is required under this subpart at this time. Therefore, no further discussion is required.

(b) For purposes of compliance with §60.763(a), each owner or operator of a controlled landfill must place each well or design component as specified in the approved design plan as provided in §60.767(c). Each well must be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

(1) Five (5) years or more if active; or

(2) Two (2) years or more if closed or at final grade.

The requirements under this section are related to the landfills that have gas collection and control system or are proposing to install a new collection and control system under this subpart. This landfill does not have a collection and

control system, nor one is required under this subpart at this time. Therefore, no further discussion is required.

(c) The following procedures must be used for compliance with the surface methane operational standard as provided in §60.763(d).

The requirements under this section are related to the landfills that have gas collection and control system or are proposing to install a new collection and control system under this subpart. This landfill does not have a collection and control system, nor one is required under this subpart at this time. Therefore, no further discussion is required.

(d) Each owner or operator seeking to comply with the provisions in paragraph (c) of this section or §60.764(a)(6) must comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

- (1) The portable analyzer must meet the instrument specifications provided in section 6 of Method 21 of appendix A of this part, except that “methane” replaces all references to “VOC”.
- (2) The calibration gas must be methane, diluted to a nominal concentration of 500 parts per million in air.
- (3) To meet the performance evaluation requirements in section 8.1 of Method 21 of appendix A of this part, the instrument evaluation procedures of section 8.1 of Method 21 of appendix A of this part must be used.
- (4) The calibration procedures provided in sections 8 and 10 of Method 21 of appendix A of this part must be followed immediately before commencing a surface monitoring survey.

The following condition will be included in the permit:

- The owner or operator seeking to comply with Tier 4 provisions in 40 CFR 60.764(a)(6) must comply with the following instrumentation specifications and procedures for surface emission monitoring devices: (1) The portable analyzer must meet the instrument specifications provided in section 6 of Method 21 of Appendix A of 40 CFR Part 60, except that “methane” replaces all references to “VOC”; (2) The calibration gas must be methane, diluted to a nominal concentration of 500 parts per million in air; (3) To meet the performance evaluation requirements in section 8.1 of Method 21 of Appendix A of 40 CFR Part 60, the instrument evaluation procedures of section 8.1 of Method 21 of

Appendix A of 40 CFR Part 60 must be used; and (4) The calibration procedures provided in sections 8 and 10 of Method 21 of Appendix A of 40 CFR Part 60 must be followed immediately before commencing a surface monitoring survey. [40 CFR 60.764(d)]

(e) The provisions of this subpart apply at all times, including periods of startup, shutdown or malfunction. During periods of startup, shutdown, and malfunction, you must comply with the work practice specified in §60.763(e) in lieu of the compliance provisions in §60.765.

The requirements under this section are related to the landfills that have gas collection and control system or are proposing to install a new collection and control system under this subpart. This landfill does not have a collection and control system, nor one is required under this subpart at this time. Therefore, no further discussion is required.

§60.766 Monitoring of operations

Except as provided in §60.767(c)(2), (a) Each owner or operator seeking to comply with §60.762(b)(2)(ii)(C) for an active gas collection system must install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:

- (1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in §60.765(a)(3); and
- (2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis

This landfill does not have a collection and control system, nor one is required under this subpart at this time. Therefore, no further discussion is required.

(b) Each owner or operator seeking to comply with §60.762(b)(2)(iii) using an enclosed combustor must calibrate, maintain, and operate according to the manufacturer's specifications

This landfill does not have a collection and control system, nor one is required under this subpart at this time. Therefore, no further discussion is required.

(c) Each owner or operator seeking to comply with §60.762(b)(2)(iii) using a non-enclosed flare must install, calibrate, maintain, and operate according to the manufacturer's specifications.

This landfill does not have a collection and control system, nor one is required under this subpart at this time. Therefore, no further discussion is required.

(d) Each owner or operator seeking to demonstrate compliance with §60.762(b)(2)(iii) using a device other than a non-enclosed flare or an enclosed combustor or a treatment system must provide information satisfactory to the Administrator as provided in §60.767(c)(2) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator must review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures.

This landfill does not have a collection and control system, nor one is required under this subpart at this time. Therefore, no further discussion is required.

(e) Each owner or operator seeking to install a collection system that does not meet the specifications in §60.769 or seeking to monitor alternative parameters to those required by §§60.763 through 60.766 must provide information satisfactory to the Administrator as provided in §60.767(c)(2) and (3) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures.

This landfill does not have a collection and control system, nor one is required under this subpart at this time. Therefore, no further discussion is required.

(f) Each owner or operator seeking to demonstrate compliance with the 500 parts per million surface methane operational standard in §60.763(d) must monitor surface concentrations of methane according to the procedures in §60.765(c) and the instrument specifications in §60.765(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

The operational standard in §60.763(d) is for the collection and control system. Since the landfill does not have a collection and control system, nor one is required under this subpart at this time. Therefore, no further discussion is required.

(g) Each owner or operator seeking to demonstrate compliance with §60.762(b)(2)(iii) using a landfill gas treatment system must maintain and

operate all monitoring systems associated with the treatment system in accordance with the site-specific treatment system monitoring plan required in §60.768(b)(5)(ii) and must calibrate, maintain, and operate according to the manufacturer's specifications a device that records flow to the treatment system and bypass of the treatment system (if applicable).

§60.762(b)(2)(iii) has control system requirements. Since the landfill does not have a collection and control system, nor one is required under this subpart at this time. Therefore, no further discussion is required.

(h) The monitoring requirements of paragraphs (b), (c) (d) and (g) of this section apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

This landfill does not have a collection and control system, nor one is required under this subpart at this time. Therefore, no further discussion is required.

§60.767 Reporting requirements.

(a) *Design capacity report.* Each owner or operator subject to the requirements of this subpart must submit an initial design capacity report to the Administrator.

(1) *Submission.* The initial design capacity report fulfills the requirements of the notification of the date construction is commenced as required by §60.7(a)(1) and must be submitted no later than:

- (i) November 28, 2016, for landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016; or
- (ii) Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016.

(2) *Initial design capacity report.* The initial design capacity report must contain the following information:

(i) A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the permit issued by the state, local, or tribal agency responsible for regulating the landfill.

(ii) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the permit issued by the state, local, or tribal agency responsible for regulating the landfill, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity must be calculated using good engineering practices. The calculations must be provided, along with the relevant parameters as part of the report. The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation must include a site-specific density, which must be recalculated annually. Any density conversions must be documented and submitted with the design capacity report. The state, tribal, local agency or Administrator may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

The facility had submitted initial design capacity report to the District on August 9, 2018. The report was submitted within the required 90 days after the date of commenced construction.

(3) *Amended design capacity report.* An amended design capacity report must be submitted to the Administrator providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to meet or exceed 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in §60.768(f).

Other than the previously discussed SWFP in 2012, no other design capacity changes were made to this landfill. Therefore, no further discussion is required.

(b) NMOC emission rate report. Each owner or operator subject to the requirements of this subpart must submit an NMOC emission rate report following the procedure specified in paragraph (i)(2) of this section to the Administrator initially and annually thereafter, except as provided for in

paragraph (b)(1)(ii) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.

(1) The NMOC emission rate report must contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in §60.764(a) or (b), as applicable.

(i) The initial NMOC emission rate report may be combined with the initial design capacity report required in paragraph (a) of this section and must be submitted no later than indicated in paragraphs (b)(1)(i)(A) and (B) of this section. Subsequent NMOC emission rate reports must be submitted annually thereafter, except as provided for in paragraph (b)(1)(ii) of this section.

(A) November 28, 2016, for landfills that commenced construction, modification, or reconstruction after July 17, 2014, but before August 29, 2016, or

(B) Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016.

(ii) If the estimated NMOC emission rate as reported in the annual report to the Administrator is less than 34 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit, following the procedure specified in paragraph (i)(2) of this section, an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate must include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based must be provided to the Administrator. This estimate must be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate must be submitted to the Administrator. The revised estimate must cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

(2) The NMOC emission rate report must include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.

(3) Each owner or operator subject to the requirements of this subpart is exempted from the requirements to submit an NMOC emission rate report, after installing a collection and control system that complies with §60.762(b)(2), during such time as the collection and control system is in operation and in compliance with §§60.763 and 60.765.

The facility had submitted initial NMOC report to the District on August 9, 2018. The report was submitted within the required 90 days after the date of commenced modification of the landfill. According to the NMOC Tier 1 emission rate, the landfill's uncontrolled NMOC emissions for 2018 were 120.6 Mg/year. Since these emissions exceeded 34 Mg/yr threshold, the facility had elected to conduct Tier 2 site-specific NMOC sampling, as allowed under section (c)(4) in the paragraph below.

The following conditions will be included in the permit:

- The owner or operator shall submit NMOC emission rate annually except as provided for in 40 CFR 60.767 (b)(1)(ii). The District may request additional information as may be necessary to verify the reported NMOC emission rate. [40 CFR 60.767 (b)]
- The NMOC emission rate report must contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in 40 CFR 60.764(a) or (b), as applicable. The initial NMOC emission rate report may be combined with the initial design capacity report and must be submitted no later than 90 days after the date of commenced construction. [40 CFR 60.767 (b)(1)(i)]
- If the estimated NMOC emission rate as reported in the annual report to the District is less than 34 megagrams per 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 report. This estimate must include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based must be provided to the District. This estimate must be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate must be submitted to the District. The revised estimate must cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate. [40 CFR 60.767 (b)(1)(ii)]

(c) *Collection and control system design plan.* Each owner or operator subject to the provisions of §60.762(b)(2) must submit a collection and control system design plan to the Administrator for approval according to the schedule in paragraph (c)(4) of this section. The collection and control system design plan must be prepared and approved by a professional engineer and must meet the following requirements:

(1) The collection and control system as described in the design plan must meet the design requirements in §60.762(b)(2).

(2) The collection and control system design plan must include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of §§60.763 through 60.768 proposed by the owner or operator.

(3) The collection and control system design plan must either conform with specifications for active collection systems in §60.769 or include a demonstration to the Administrator's satisfaction of the sufficiency of the alternative provisions to §60.769.

(4) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters must submit a collection and control system design plan to the Administrator for approval within 1 year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year, except as follows:

(i) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in §60.764(a)(3) and the resulting rate is less than 34 megagrams per year, annual periodic reporting must be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 34 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, must be submitted, following the procedures in paragraph (i)(2) of this section, within 180 days of the first calculated exceedance of 34 megagrams per year.

(ii) If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant k , as provided in Tier 3 in §60.764(a)(4), and the resulting NMOC emission rate is less than 34 Mg/yr, annual periodic reporting must be resumed. The resulting site-specific methane generation rate constant k must be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance.

The revised NMOC emission rate report based on the provisions of §60.764(a)(4) and the resulting site-specific methane generation rate constant k must be submitted, following the procedure specified in paragraph (i)(2) of this section, to the Administrator within 1 year of the first calculated emission rate equaling or exceeding 34 megagrams per year.

(iii) If the owner or operator elects to demonstrate that site-specific surface methane emissions are below 500 parts per million methane, based on the provisions of §60.764(a)(6), then the owner or operator must submit annually a Tier 4 surface emissions report as specified in this paragraph following the procedure specified in paragraph (i)(2) of this section until a surface emissions readings of 500 parts per million methane or greater is found. If the Tier 4 surface emissions report shows no surface emissions readings of 500 parts per million methane or greater for four consecutive quarters at a closed landfill, then the landfill owner or operator may reduce Tier 4 monitoring from a quarterly to an annual frequency. The Administrator may request such additional information as may be necessary to verify the reported instantaneous surface emission readings. The Tier 4 surface emissions report must clearly identify the location, date and time (to nearest second), average wind speeds including wind gusts, and reading (in parts per million) of any value 500 parts per million methane or greater, other than non-repeatable, momentary readings. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places. The Tier 4 surface emission report must also include the results of the most recent Tier 1 and Tier 2 results in order to verify that the landfill does not exceed 50 Mg/yr of NMOC.

(A) The initial Tier 4 surface emissions report must be submitted annually, starting within 30 days of completing the fourth quarter of Tier 4 surface emissions monitoring that demonstrates that site-specific surface methane emissions are below 500 parts per million methane, and following the procedure specified in paragraph (i)(2) of this section.

(B) The Tier 4 surface emissions report must be submitted within 1 year of the first measured surface exceedance of 500 parts per million methane, following the procedure specified in paragraph (i)(2) of this section.

(5) The landfill owner or operator must notify the Administrator that the design plan is completed and submit a copy of the plan's signature page. The Administrator has 90 days to decide whether the design plan should

be submitted for review. If the Administrator chooses to review the plan, the approval process continues as described in paragraph (c)(6) of this section. However, if the Administrator indicates that submission is not required or does not respond within 90 days, the landfill owner or operator can continue to implement the plan with the recognition that the owner or operator is proceeding at their own risk. In the event that the design plan is required to be modified to obtain approval, the owner or operator must take any steps necessary to conform any prior actions to the approved design plan and any failure to do so could result in an enforcement action.

(6) Upon receipt of an initial or revised design plan, the Administrator must review the information submitted under paragraphs (c)(1) through (3) of this section and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems. If the Administrator does not approve or disapprove the design plan, or does not request that additional information be submitted within 90 days of receipt, then the owner or operator may continue with implementation of the design plan, recognizing they would be proceeding at their own risk.

(7) If the owner or operator chooses to demonstrate compliance with the emission control requirements of this subpart using a treatment system as defined in this subpart, then the owner or operator must prepare a site-specific treatment system monitoring plan as specified in §60.768(b)(5).

As stated above, initial NMOC emission rate report indicate that the facility exceeded NMOC emission rate of 34 megagrams per year. As allowed under section (c)(4)(i) above, the operator has elected to conduct Tier-2 analysis to determine site-specific NMOC concentration. The Tier 2 sampling was conducted on December 19 through 21, 2018. NMOC emission rate was recalculated using Tier-2 NMOC site-specific concentration. The Tier-2 NMOC 5-year emission rate report demonstrate that the NMOC emissions are below the 34 megagram per year threshold for the 5-year period from 2018 through 2022 (28.8 Mg/year in 2022). The report was submitted to the District on January 31, 2019 within the required 180 days of the first calculated 34 megagrams per year.

The following permit conditions will be included in the permit:

- If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is equal to or greater than 34 megagrams per year, the landfill owner or operator must either: (A) Submit a gas

collection and control system design plan within 1 year as specified in 40 CFR 60.767(c) and install and operate a gas collection and control system within 30 months of the determination in accordance with 40 CFR 60.762(b)(2)(ii) and (iii); (B) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the Tier 3 procedures specified in paragraph (a)(4) of this section; or (C) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in 40 CFR 60.764(a)(6). [40 CFR 60.764(a)(3)(iv)]

- If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in 40 CFR 60.764(a)(3) and the resulting rate is less than 34 megagrams per year, annual periodic reporting must be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 34 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, must be submitted within 180 days of the first calculated exceedance of 34 megagrams per year. [40 CFR 60.767(c)(4)(i)]
- For Tier 3 procedure, if the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration and Tier 3 site-specific methane generation rate is equal to or greater than 34 megagrams per year, the owner or operator must either: (A) Submit a gas collection and control system design plan within 1 year as specified in 40 CFR 60.767(c) and install and operate a gas collection and control system within 30 months of that determination in accordance with 40 CFR 60.762(b)(2)(ii) and (iii); or (B) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in 40 CFR 60.764(a)(6) of this section. [40 CFR 60.764(a)(4)(i)]
- If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant k , as provided in Tier 3 in 40 CFR 60.764(a)(4), and the resulting NMOC emission rate is less than 34 Mg/yr, annual periodic reporting must be resumed. The resulting site-specific methane generation rate constant k must be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of 40 CFR 60.764(a)(4) and the resulting site-specific methane generation rate constant k must be submitted to the District within 1 year of the first calculated emission rate equaling or exceeding 34 megagrams per year. [40 CFR 60.767(c)(4)(ii)]

- If the owner or operator elects to demonstrate that site-specific surface methane emissions are below 500 parts per million methane, based on the provisions of 40 CFR 60.764(a)(6), then the owner or operator must submit annually a Tier 4 surface emissions report until a surface emissions readings of 500 parts per million methane or greater is found. If the Tier 4 surface emissions report shows no surface emissions readings of 500 parts per million methane or greater for four consecutive quarters at a closed landfill, then the landfill owner or operator may reduce Tier 4 monitoring from a quarterly to an annual frequency. The District may request such additional information as may be necessary to verify the reported instantaneous surface emission readings. The Tier 4 surface emissions report must clearly identify the location, date and time (to nearest second), average wind speeds including wind gusts, and reading (in parts per million) of any value 500 parts per million methane or greater, other than non-repeatable, momentary readings. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places. The Tier 4 surface emission report must also include the results of the most recent Tier 1 and Tier 2 results in order to verify that the landfill does not exceed 50 Mg/yr of NMOC. [40 CFR 60.767(c)(4)(iii)]
- The initial Tier 4 surface emissions report must be submitted to the District annually, starting within 30 days of completing the fourth quarter of Tier 4 surface emissions monitoring that demonstrates that site-specific surface methane emissions are below 500 parts per million methane. [40 CFR 60.767(c)(4)(iii)(A)]
- The Tier 4 surface emissions report must be submitted to the District within 1 year of the first measured surface exceedance of 500 parts per million methane. [40 CFR 60.767(c)(4)(iii)(B)]

(d) *Revised design plan.* The owner or operator who has already been required to submit a design plan under paragraph (c) of this section must submit a revised design plan to the Administrator for approval as follows:

- (1) At least 90 days before expanding operations to an area not covered by the previously approved design plan.
- (2) Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the Administrator according to paragraph (c) of this section.

At this time, the facility has not submitted any collection and control design plan. Therefore, no further discussion is required.

(e) *Closure report.* Each owner or operator of a controlled landfill must submit a closure report to the Administrator within 30 days of waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under §60.7(a)(4).

This landfill is an-active landfill. Furthermore, landfill does not have any collection and control system at this time. Therefore, this section does not apply.

(f) *Equipment removal report.* Each owner or operator of a controlled landfill must submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.

This landfill is an-active landfill. Furthermore, landfill does not have any collection and control system at this time. Therefore, this section does not apply.

(g) *Annual report.* The owner or operator of a landfill seeking to comply with §60.762(b)(2) using an active collection system designed in accordance with §60.762(b)(2)(ii) must submit to the Administrator, following the procedure specified in paragraph (i)(2) of this section, annual reports of the recorded information in paragraphs (g)(1) through (7) of this section. The initial annual report must be submitted within 180 days of installation and startup of the collection and control system and must include the initial performance test report required under §60.8, as applicable, unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX. In the initial annual report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX. For enclosed combustion devices and flares, reportable exceedances are defined under §60.768(c). If complying with the operational provisions of §§63.1958, 63.1960, and 63.1961 of this chapter, as allowed at §60.762(b)(2)(iv), the owner or operator must follow the semi-annual reporting requirements in §63.1981(h) of this chapter in lieu of this paragraph.

This landfill does not have any collection and control system, nor is required under this subpart at this time. Therefore, this section does not apply.

(h) *Initial performance test report.* Each owner or operator seeking to comply with §60.762(b)(2)(iii) must include the following information with the initial performance test report required under §60.8

This landfill does not have any collection and control system, nor is required under this subpart at this time. Therefore, this section does not apply.

(i) *Electronic reporting.* The owner or operator must submit reports electronically according to paragraphs (i)(1) and (2) of this section.

(j) *Corrective action and the corresponding timeline.* The owner or operator must submit according to paragraphs (j)(1) and (2) of this section. If complying with the operational provisions of §§63.1958, 63.1960, and 63.1961 of this chapter, as allowed at §60.762(b)(2)(iv), the owner or operator must follow the corrective action and the corresponding timeline requirements in §63.1981(j) of this chapter in lieu of this paragraph.

(1) For corrective action that is required according to §60.765(a)(3)(iii) or (a)(5)(iii) and is expected to take longer than 120 days after the initial exceedance to complete, you must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Administrator as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit). The Administrator must approve the plan for corrective action and the corresponding timeline.

(2) For corrective action that is required according to §60.765(a)(3)(iii) or (a)(5)(iii) and is not completed within 60 days after the initial exceedance, you must submit a notification to the Administrator as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

This landfill does not have any collection and control system, nor is required under this subpart at this time. Therefore, this section does not apply.

(k) *Liquids addition.* The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters that has employed leachate recirculation or added liquids based on a Research, Development, and Demonstration permit (issued through Resource Conservation and Recovery Act, subtitle D, part 258) within the last 10 years must submit to the Administrator, annually, following the procedure specified in paragraph (i)(2) of this section, the information in (k)(1) through (k)(9):

The application does not indicate that the facility employed leachate recirculation. Note that landfill does not have any collection and control system, nor is required under this subpart at this time. Therefore, this section does not apply.

(l) *Tier 4 notification.* (1) The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters must provide a notification of the date(s) upon which it intends to demonstrate site-specific surface methane emissions are below 500 parts per million methane, based on the Tier 4 provisions of §60.764(a)(6). The landfill must also include a description of the wind barrier to be used during the SEM in the notification. Notification must be postmarked not less than 30 days prior to such date.

(2) If there is a delay to the scheduled Tier 4 SEM date due to weather conditions, including not meeting the wind requirements in §60.764(a)(6)(iii)(A), the owner or operator of a landfill shall notify the Administrator by email or telephone no later than 48 hours before any delay or cancellation in the original test date, and arrange an updated date with the Administrator by mutual agreement.

The following condition will be included in the permit:

- The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters must provide a notification of the date(s) upon which it intends to demonstrate site-specific surface methane emissions are below 500 parts per million methane, based on the Tier 4 provisions of 40 CFR 60.764(a)(6). The landfill must also include a description of the wind barrier to be used during the surface emission monitoring (SEM) in the notification. Notification must be postmarked not less than 30 days prior to such date. [40 CFR 60.767(l)(1)]
 - If there is a delay to the scheduled Tier 4 SEM date due to weather conditions, including not meeting the wind requirements in §60.764(a)(6)(iii)(A), the owner or operator of a landfill shall notify the Administrator by email or telephone no later than 48 hours before any delay or cancellation in the original test date, and arrange an updated date with the District or EPA by mutual agreement. [40 CFR 60.767(l)(2)]
- (m) Each owner or operator that chooses to comply with the provisions in §§63.1958, 63.1960, and 63.1961, as allowed at §60.762(b)(2)(iv), must submit the 24-hour high temperature report according to §63.1981(k) of this chapter.

This landfill does not have any collection and control system, nor is required under this subpart at this time. Therefore, this section does not apply.

§60.768 Recordkeeping requirements.

(a) Except as provided in §60.767(c)(2), each owner or operator of an MSW landfill subject to the provisions of §60.762(b)(2)(ii) and (iii) must keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report that triggered §60.762(b), 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. Either paper copy or electronic formats are acceptable.

The following condition will be included in the permit:

- 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. Either paper copy or electronic formats are acceptable. [40 CFR 60.768(a)]

(b) Except as provided in §60.767(c)(2), each owner or operator of a controlled landfill must keep up-to-date, readily accessible records for the life of the control system equipment of the data listed in paragraphs (b)(1) through (5) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. Records of the control device vendor specifications must be maintained until removal.

This landfill does not have any collection and control system, nor is required under this subpart at this time. Therefore, this section does not apply.

(c) Except as provided in §60.767(c)(2), each owner or operator of a controlled landfill subject to the provisions of this subpart must keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in §60.766 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

This landfill does not have any collection and control system, nor is required under this subpart at this time. Therefore, this section does not apply.

(d) Except as provided in §60.767(c)(2), each owner or operator subject to the provisions of this subpart must keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

This landfill does not have any collection and control system, nor is required under this subpart at this time. Therefore, this section does not apply.

(f) Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, as provided in the definition of “design capacity”, must keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

This landfill’s design capacity is more than 2.5 million megagrams or 2.5 million cubic meters. Since the applicant is not claiming the “design capacity” less than these thresholds, the requirements of this section does not apply.

(g) Landfill owners or operators seeking to demonstrate that site-specific surface methane emissions are below 500 parts per million by conducting surface emission monitoring under the Tier 4 procedures specified in §60.764(a)(6) must keep for at least 5 years up-to-date, readily accessible records of all surface emissions monitoring and information related to monitoring instrument calibrations conducted according to sections 8 and 10 of Method 21 of appendix A of this part, including all of the following items:

(1) Calibration records:

- (i) Date of calibration and initials of operator performing the calibration.
- (ii) Calibration gas cylinder identification, certification date, and certified concentration.
- (iii) Instrument scale(s) used.
- (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value.
- (v) If an owner or operator makes their own calibration gas, a description of the procedure used.

(2) Digital photographs of the instrument setup, including the wind barrier. The photographs must be time and date-stamped and taken at the first

sampling location prior to sampling and at the last sampling location after sampling at the end of each sampling day, for the duration of the Tier 4 monitoring demonstration.

(3) Timestamp of each surface scan reading:

- (i) Timestamp should be detailed to the nearest second, based on when the sample collection begins.
- (ii) A log for the length of time each sample was taken using a stopwatch (e.g., the time the probe was held over the area).

(4) Location of each surface scan reading. The owner or operator must determine the coordinates using an instrument with an accuracy of at least 4 meters. Coordinates must be in decimal degrees with at least five decimal places.

(5) Monitored methane concentration (parts per million) of each reading.

(6) Background methane concentration (parts per million) after each instrument calibration test.

(7) Adjusted methane concentration using most recent calibration (parts per million).

(8) For readings taken at each surface penetration, the unique identification location label matching the label specified in paragraph (d) of this section.

(9) Records of the operating hours of the gas collection system for each destruction device.

The following condition will be included in the permit:

- Landfill owners or operators seeking to demonstrate that site-specific surface methane emissions are below 500 parts per million by conducting surface emission monitoring under the Tier 4 procedures specified in 40 CFR 60.764(a)(6) must keep for at least 5 years up-to-date, readily accessible records of all surface emissions monitoring and information related to monitoring instrument calibrations conducted according to sections 8 and 10 of Method 21 of appendix A of this part, including all of the following items: (1) Calibration records: (i) Date of calibration and initials of operator performing the calibration. (ii) Calibration gas cylinder identification, certification date, and certified concentration. (iii) Instrument scale(s) used. (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value. (v) If an owner or operator makes their own calibration gas, a description of the procedure used.

(2) Digital photographs of the instrument setup, including the wind barrier. The photographs must be time and date-stamped and taken at the first sampling location prior to sampling and at the last sampling location after sampling at the end of each sampling day, for the duration of the Tier 4 monitoring demonstration. (3) Timestamp of each surface scan reading: (i) Timestamp should be detailed to the nearest second, based on when the sample collection begins. (ii) A log for the length of time each sample was taken using a stopwatch (e.g., the time the probe was held over the area). (4) Location of each surface scan reading. The owner or operator must determine the coordinates using an instrument with an accuracy of at least 4 meters. Coordinates must be in decimal degrees with at least five decimal places. (5) Monitored methane concentration (parts per million) of each reading. (6) Background methane concentration (parts per million) after each instrument calibration test. (7) Adjusted methane concentration using most recent calibration (parts per million). (8) For readings taken at each surface penetration, the unique identification location label matching the label specified in paragraph (d) of this section; and (9) Records of the operating hours of the gas collection system for each destruction device. [40 CFR 60.768(g)]

(h) Except as provided in §60.767(c)(2), each owner or operator subject to the provisions of this subpart must keep for at least 5 years up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in §60.766(a)(1), (2), and (3).

This landfill does not have any collection and control system, nor is required under this subpart at this time. Therefore, this section does not apply.

(i) Any records required to be maintained by this subpart that are submitted electronically via the EPA's CDX may be maintained in electronic format.

(j) For each owner or operator reporting leachate or other liquids addition under §60.767(k), keep records of any engineering calculations or company records used to estimate the quantities of leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of annual waste acceptance or total waste in place in the areas where leachate or liquids were applied.

The application does not indicate that the facility employed leachate recirculation. Note that landfill does not have any collection and control system, nor is required under this subpart at this time. Therefore, this section does not apply.

§60.769 Specifications for active collection systems.

(a) Each owner or operator seeking to comply with §60.762(b)(2)(i) must site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator as provided in §60.767(c)(2) and (3).

(b) Each owner or operator seeking to comply with §60.762(b)(2)(ii)(A) construct the gas collection devices using the equipment or procedures in (b)(1) through (b)(3).

(c) Each owner or operator seeking to comply with §60.762(b)(2)(iii) must convey the landfill gas to a control system in compliance with §60.762(b)(2)(iii) through the collection header pipe(s). The gas mover equipment must be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the procedures (c)(1) and (c)(2).

This landfill does not have any collection and control system, nor is required under this subpart at this time. Therefore, this section does not apply.

40 CFR Part 63-Subpart AAAA-National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills

§63.1935 Am I subject to this subpart?

You are subject to this subpart if you meet the criteria in paragraph (a) or (b) of this section.

(a) You are subject to this subpart if you own or operate an MSW landfill that has accepted waste since November 8, 1987, or has additional capacity for waste deposition and meets any one of the three criteria in paragraphs (a)(1) through (3) of this section:

(1) Your MSW landfill is a major source as defined in §63.2 of subpart A.

(2) Your MSW landfill is collocated with a major source as defined in §63.2 of subpart A.

(3) Your MSW landfill is an area source landfill that has a design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m³) and has estimated uncontrolled emissions equal to or greater than 50 megagrams per year (Mg/yr) NMOC as calculated according to §63.1959.

Per potential to emit report in the Title V application package, this facility's single HAP emissions are not equal to or greater than 10 tons/yr, nor it's combined HAP emissions equals or exceeds 25 tons/yr threshold. Thus, this facility is not a major source for HAP emissions. Further, per applicant's consultant, this facility is not collocated with another major HAP source. This facility is an area source landfill with design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m³); it's uncontrolled NMOC emissions using Tier-2 site specific testing were below the 50 Mg/yr. Therefore, this landfill is not subject to the requirements of this subpart at this time.

(b) You are subject to this subpart if you own or operate an MSW landfill that has accepted waste since November 8, 1987, or has additional capacity for waste deposition, that includes a bioreactor, as defined in §63.1990, and that meets any one of the criteria in paragraphs (b)(1) through (3) of this section:

(1) Your MSW landfill is a major source as defined in §63.2 of subpart A.

(2) Your MSW landfill is collocated with a major source as defined in §63.2 of subpart A.

(3) Your MSW landfill is an area source landfill that has a design capacity equal to or greater than 2.5 million Mg and 2.5 million m³ and that is not permanently closed as of January 16, 2003.

Per applicant's consultant, this landfill does not include a "bioreactor" as defined in this subpart. Thus, this section does not apply.

40 CFR Part 64, Compliance Assurance Monitoring (CAM)

40 CFR Part 64 requires Compliance Assurance Monitoring (CAM) for units that meet the following three criteria:

- 1) the unit must have an emission limit for the pollutant;
- 2) the unit must have add-on controls for the pollutant; these are devices such as flue gas recirculation (FGR), baghouses, and catalytic oxidizers; and
- 3) the unit must have a pre-control potential to emit of greater than the major source thresholds.

Section 64.2(b) states that the requirements of this part shall not apply to any emission limitations or standards proposed after November 15, 1990. These limitations or standards are new source performance standards (NSPS) or national emission standards for hazardous air pollutants (NESHAP) proposed after November 15, 1990.

The facility is subject to 40 CFR 60 subpart XXX. The standards in this subpart proposed after November 15, 1990. Therefore, this permit unit is exempt from CAM.

X. PERMIT SHIELD

A permit shield legally protects a facility from enforcement of the shielded regulations when a source is in compliance with the terms and conditions of the Title V permit. Compliance with the terms and conditions of the Operating Permit is considered compliance with all applicable requirements upon which those conditions are based, including those that have been subsumed.

A. Requirements Addressed by Model General Permit Templates

By using the model general permit template(s) listed in Section IV of this evaluation, the applicant has requested that a permit shield be issued for requirements addressed in the template(s). The basis for each permit shield is discussed in the Permit Shield section of each template.

B. Requirements not Addressed by Model General Permit Templates

The model general permit template contains requirements related to the permit shields. Therefore, no further discussion is necessary.

XI. PERMIT CONDITIONS

See Attachment A – Draft Title V Operating Permit.

XII. ATTACHMENTS

- A. Draft Title V Operating Permit
- B. Detailed Facility List
- C. Exempt Equipment
- D. Permits to Operate

ATTACHMENT A

Draft Title V Operating Permit

San Joaquin Valley Air Pollution Control District

FACILITY: N-5018-0-1

EXPIRATION DATE: 04/30/2024

FACILITY-WIDE REQUIREMENTS

1. {4362} The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
2. {4363} The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
3. {4364} The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
4. {4365} Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
5. {4366} The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.8.1 and 9.13.1] Federally Enforceable Through Title V Permit
6. {4367} A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
7. {4368} Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
8. {4369} The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

Facility Name: MERCED COUNTY DEPARTMENT OF PUBLIC WORKS
Location: SOLID WASTE DIVISION, 17173 S BILLY WRIGHT RD, LOS BANOS, CA
N-5018-0-1 : Mar 23 2021 10:18AM - KAHLOJ

9. {4370} The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. {4371} The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
11. {4372} Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
12. {4373} If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
13. {4374} It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
14. {4375} The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
15. {4376} The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
16. {4377} The Permittee 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 permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
17. {4378} The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
18. {4379} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
19. {4380} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
20. {4381} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
21. {4382} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit

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

22. {4383} No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
23. {4384} No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
24. {4385} All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
25. {4386} The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
26. {4387} With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
27. {4388} If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
28. {4389} If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
29. {4390} Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit
30. {4391} Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8031] Federally Enforceable Through Title V Permit
31. {4392} An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8041] Federally Enforceable Through Title V Permit
32. {4393} Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8051] Federally Enforceable Through Title V Permit
33. {4394} Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8061] Federally Enforceable Through Title V Permit

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

34. {4395} Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8071] Federally Enforceable Through Title V Permit
35. {4396} Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit
36. {4397} The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
37. {4398} The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
38. {4399} When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
39. {4400} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. {4401} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
42. On {Insert issuance date}, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-5018-5-1

EXPIRATION DATE: 04/30/2024

SECTION: 27 **TOWNSHIP:** 9S **RANGE:** 9E

EQUIPMENT DESCRIPTION:

MUNICIPAL SOLID WASTE LANDFILL, 14.8 MILLION CUBIC YARD CAPACITY (101.8 ACRES OF 172.7 ACRES FOR DISPOSAL)

PERMIT UNIT REQUIREMENTS

1. The owner or operator shall calculate the NMOC emission rate from the landfill using the procedures in 40 CFR 60.764(a)(1). The NMOC emission rate must be recalculated annually, except as provided in 40 CFR 60.767(b)(1)(ii). [40 CFR 60.752(b)] Federally Enforceable Through Title V Permit
2. If the calculated NMOC emission rate is less than 34 megagrams per year, the owner or operator must: (A) Submit an annual NMOC emission rate emission report to the District, except as provided for in section 60.767(b)(1)(ii); and (B) Recalculate the NMOC emission rate annually using the procedures specified in §60.764(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 34 megagrams per year, or the landfill is closed. [40 CFR 60.752(b)(1)] Federally Enforceable Through Title V Permit
3. If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator must either: Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year as specified in 40 CFR 60.767(c); calculate NMOC emissions using the next higher tier in 40 CFR 60.764; or conduct a surface emission monitoring demonstration using the procedures specified in 40 CFR 60.764(a)(6). The collection and control system must meet the requirements in paragraphs 40 CFR 60.762(b)(2)(ii) and (iii). [40 CFR 60.752(b)(2)] Federally Enforceable Through Title V Permit
4. NMOC emission rate shall be calculated using the Equation 1 in 40 CFR 60.764(a)(1)(i)(A), if the actual year-to-year solid waste acceptance rate is known or the Equation 2 in 40 CFR 60.764(a)(1)(ii)(A), if the actual year-to-year solid waste acceptance rate is unknown. The values for k, Lo, and CNMOC for both equations shall be taken from 40 CFR 60.764(a)(1), as appropriate. Both equations may be used if the actual year-to-year acceptance rate is known for a part of the landfill life, but unknown for another part of the landfill life. The mass of nondegradable solid waste may be subtracted from the average annual acceptance rate when calculating Mi or R, as appropriate, if documentation of the nature and amount of such wastes is maintained. [40 CFR 60.764(a)(1)] Federally Enforceable Through Title V Permit
5. If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year, then the landfill owner or operator must either: (A) Submit a collection and control design plan within 1 year as specified in 40 CFR 60.767(c) and install and operate a gas collection and control system within 30 months of the determination in accordance with 40 CFR 60.762(b)(2)(ii) and (iii); (B) Determine a site-specific NMOC concentration and recalculate the NMOC emission rate using Tier 2 procedures provided in 40 CFR 60.764(a)(3); or (C) Determine site-specific methane generation rate constant and re-calculate the NMOC emission rate using the Tier 3 procedures provided in specifications 40 CFR 60.764(a)(4). [40 CFR 60.764(a)(2)(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. Tier 2 procedure to determine the site-specific NMOC concentration shall include the following sampling procedure:
 - 1) The landfill owner or operator must install at least two sample probes per hectare, evenly distributed over the landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The probes should be evenly distributed across the sample area. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator must collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration, using EPA Method 25 or 25C of Appendix A to 40 CFR Part 60, or any other alternative method as long as the method has been approved by the District and EPA. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If more than the required number of samples are taken, all samples must be used in the analysis. The landfill owner or operator must divide the NMOC concentration from Method 25 or 25C of Appendix A of 40 CFR Part 60 by six to convert from CNMOC as carbon to CNMOC as hexane.
 - 2) If the landfill has an active or passive gas removal system in place, Method 25 or 25C, or alternative approved method samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe. The sample location on the common header pipe must be before any gas moving, condensate removal, or treatment system equipment. For active collection systems, a minimum of three samples must be collected from the header pipe. [40 CFR 60.764(a)(3) and 40 CFR 60.764(a)(5)] Federally Enforceable Through Title V Permit
7. For Tier 2 procedure, the owner or operator shall submit the results within 60 days after the date of completing each performance test. [40 CFR 60.764(a)(3)(i) and 40 CFR 60.767(i)(1)] Federally Enforceable Through Title V Permit
8. For Tier 2 procedure, the owner or operator must recalculate the NMOC mass emission rate using Equation 1 or Equation 2 provided in 40 CFR 60.764(a)(1)(i) or (a)(1)(ii) of this section and using the average site-specific NMOC concentration from the collected samples instead of the default value provided in 40 CFR 60.764(a)(1). [40 CFR 60.764(a)(3)(ii)] Federally Enforceable Through Title V Permit
9. For Tier 2 procedure, if the resulting NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator must submit a periodic estimate of NMOC emissions in an NMOC emission rate report according to 40 CFR 60.767(b)(1), and must recalculate the NMOC mass emission rate annually as required under 40 CFR 60.762(b), except as provided in 40 CFR 60.767(b)(1)(ii). The site-specific NMOC concentration must be retested every 5 years using the methods specified in 40 CFR 60.764(a)(3). [40 CFR 60.764(a)(3)(iii)] Federally Enforceable Through Title V Permit
10. If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is equal to or greater than 34 megagrams per year, the landfill owner or operator must either: (A) Submit a gas collection and control system design plan within 1 year as specified in 40 CFR 60.767(c) and install and operate a gas collection and control system within 30 months of the determination in accordance with 40 CFR 60.762(b)(2)(ii) and (iii); (B) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the Tier 3 procedures specified in paragraph (a)(4) of this section; or (C) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in 40 CFR 60.764(a)(6). [40 CFR 60.764(a)(3)(iv)] Federally Enforceable Through Title V Permit
11. For Tier 3 procedure, the site-specific methane generation rate constant must be determined using the procedures provided in Method 2E of Appendix A of 40 CFR Part 60 or any other alternative method as long as the method has been approved by the District and EPA. [40 CFR 60.764(a)(4) and 40 CFR 60.764(a)(5)] Federally Enforceable Through Title V Permit
12. For Tier 3 procedure, the landfill owner or operator must estimate the NMOC mass emission rate using Equation 1 or Equation 2 in paragraph 40 CFR 60.764(a)(1)(i) or (ii) and using a site-specific methane generation rate constant, and the site-specific NMOC concentration as determined in paragraph 40 CFR 60.764(a)(3) of instead of the default values provided in paragraph 40 CFR 60.764(a)(1). [40 CFR 60.764(a)(4)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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13. For Tier 3 procedure, if the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration and Tier 3 site-specific methane generation rate is equal to or greater than 34 megagrams per year, the owner or operator must either: (A) Submit a gas collection and control system design plan within 1 year as specified in 40CFR60.767(c) and install and operate a gas collection and control system within 30 months of that determination in accordance with 40 CFR 60.762(b)(2)(ii) and (iii); or (B) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in 40 CFR 60.764(a)(6) of this section. [40 CFR 60.764(a)(4)(i)] Federally Enforceable Through Title V Permit
14. For Tier 3 procedure, if the NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator must recalculate the NMOC mass emission rate annually using Equation 1 or Equation 2 in paragraph 40 CFR 60.764(a)(1) and using the site-specific Tier 2 NMOC concentration and Tier 3 methane generation rate constant and submit a periodic NMOC emission rate report as provided in 40 CFR 60.767(b)(1). The calculation of the methane generation rate constant is performed only once, and the value obtained from this test must be used in all subsequent annual NMOC emission rate calculations. [40 CFR 60.764(a)(4)(ii)] Federally Enforceable Through Title V Permit
15. For Tier 4, the landfill owner or operator must demonstrate surface methane emissions are below 500 parts per million. Surface emission monitoring must be conducted on a quarterly basis using the procedures in 40 CFR 60.764(a)(6). Tier 4 is allowed only if the landfill owner or operator can demonstrate that NMOC emissions are greater than or equal to 34 Mg/yr but less than 50 Mg/yr using Tier 1 or Tier 2. If both Tier 1 and Tier 2 indicate NMOC emissions are 50 Mg/yr or greater, then Tier 4 cannot be used. In addition, the landfill must meet the criteria in 40 CFR 60.764(a)(6)(viii). [40 CFR 60.764(a)(6)] Federally Enforceable Through Title V Permit
16. For Tier 4, surface emission monitoring must be conducted on a quarterly basis using the following procedures: (i) The owner or operator must measure surface concentrations of methane along the entire perimeter of the landfill and along a pattern that traverses the landfill at no more than 30-meter intervals using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in section 60.765(d); (ii) The background concentration must be determined by moving the probe inlet upwind and downwind at least 30 meters from the waste mass boundary of the landfill; (iii) Surface emission monitoring must be performed in accordance with section 8.3.1 of Method 21 of Appendix A of 40 CFR Part 60, except that the probe inlet must be placed no more than 5 centimeters above the landfill surface; the constant measurement of distance above the surface should be based on a mechanical device such as with a wheel on a pole, except as described in paragraph 40 CFR 60.764 (a)(6)(iii)(A). (A) The owner or operator must use a wind barrier, similar to a funnel, when onsite average wind speed exceeds 4 miles per hour or 2 meters per second or gust exceeding 10 miles per hour. Average on-site wind speed must also be determined in an open area at 5-minute intervals using an on-site anemometer with a continuous recorder and data logger for the entire duration of the monitoring event. The wind barrier must surround the surface emission monitor, and must be placed on the ground, to ensure wind turbulence is blocked. Surface emission monitor cannot be conducted if average wind speed exceeds 25 miles per hour. (B) Landfill surface areas where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover, and all cover penetrations must also be monitored using a device meeting the specifications provided in section 60.765(d). [40 CFR 60.764(a)(6)(i), (ii) and (iii)] Federally Enforceable Through Title V Permit
17. For Tier 4, the owner or operator seeking to comply with the Tier 4 provisions in paragraph 40 CFR 60.764(a)(6) must maintain records of surface emission monitoring as provided in 40 CFR 60.768(g) and submit a Tier 4 surface emissions report as provided in 40 CFR 60.767(c)(4)(iii). [40 CFR 60.764(a)(6)(iv)] Federally Enforceable Through Title V Permit
18. For Tier 4, if there is any measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must submit a gas collection and control system design plan within 1 year of the first measured concentration of methane of 500 parts per million or greater from the surface of the landfill according to 40 CFR 60.767(c) and install and operate a gas collection and control system according to 40 CFR 60.762(b)(2)(ii) and (iii) within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2. [40 CFR 60.764(a)(6)(v)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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19. For Tier 4, if after four consecutive quarterly monitoring periods at a landfill, other than a closed landfill, there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must continue quarterly surface emission monitoring using the methods specified in 40 CFR 60.764(a)(6). [40 CFR 60.764(a)(6)(vi)] Federally Enforceable Through Title V Permit
20. For Tier 4, if after four consecutive quarterly monitoring periods at a closed landfill there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must conduct annual surface emission monitoring using 40 CFR 60.764(a)(6). [40 CFR 60.764(a)(6)(vii)] Federally Enforceable Through Title V Permit
21. For Tier 4, if a landfill has installed and operates a collection and control system that is not required by this subpart, then the collection and control system must meet the following criteria: (A) The gas collection and control system must have operated for 6,570 out of 8,760 hours preceding the Tier 4 surface emissions monitoring demonstration; (B) During the Tier 4 surface emissions monitoring demonstration, the gas collection and control system must operate as it normally would to collect and control as much landfill gas as possible. [40 CFR 60.764(a)(6)(viii)] Federally Enforceable Through Title V Permit
22. The owner or operator seeking to comply with Tier 4 provisions in 40 CFR 60.764(a)(6) must comply with the following instrumentation specifications and procedures for surface emission monitoring devices: (1) The portable analyzer must meet the instrument specifications provided in section 6 of Method 21 of Appendix A of 40 CFR Part 60, except that "methane" replaces all references to "VOC"; (2) The calibration gas must be methane, diluted to a nominal concentration of 500 parts per million in air; (3) To meet the performance evaluation requirements in section 8.1 of Method 21 of Appendix A of 40 CFR Part 60, the instrument evaluation procedures of section 8.1 of Method 21 of Appendix A of 40 CFR Part 60 must be used; and (4) The calibration procedures provided in sections 8 and 10 of Method 21 of Appendix A of 40 CFR Part 60 must be followed immediately before commencing a surface monitoring survey. [40 CFR 60.764(d)] Federally Enforceable Through Title V Permit
23. The owner or operator shall submit NMOC emission rate annually except as provided for in 40 CFR 60.767 (b)(1)(ii). The District may request additional information as may be necessary to verify the reported NMOC emission rate. [40 CFR 60.767 (b)] Federally Enforceable Through Title V Permit
24. The NMOC emission rate report must contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in 40 CFR 60.764(a) or (b), as applicable. The initial NMOC emission rate report may be combined with the initial design capacity report and must be submitted no later than 90 days after the date of commenced construction. [40 CFR 60.767 (b)(1)(i)] Federally Enforceable Through Title V Permit
25. If the estimated NMOC emission rate as reported in the annual report to the District is less than 34 megagrams per 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 report. This estimate must include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based must be provided to the District. This estimate must be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate must be submitted to the District. The revised estimate must cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate. [40 CFR 60.767 (b)(1)(ii)] Federally Enforceable Through Title V Permit
26. If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in 40 CFR 60.764(a)(3) and the resulting rate is less than 34 megagrams per year, annual periodic reporting must be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 34 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, must be submitted within 180 days of the first calculated exceedance of 34 megagrams per year. [40 CFR 60.767(c)(4)(i)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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27. If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant k , as provided in Tier 3 in 40 CFR 60.764(a)(4), and the resulting NMOC emission rate is less than 34 Mg/yr, annual periodic reporting must be resumed. The resulting site-specific methane generation rate constant k must be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of 40 CFR 60.764(a)(4) and the resulting site-specific methane generation rate constant k must be submitted to the District within 1 year of the first calculated emission rate equaling or exceeding 34 megagrams per year. [40 CFR 60.767(c)(4)(ii)] Federally Enforceable Through Title V Permit
28. If the owner or operator elects to demonstrate that site-specific surface methane emissions are below 500 parts per million methane, based on the provisions of 40 CFR 60.764(a)(6), then the owner or operator must submit annually a Tier 4 surface emissions report until a surface emissions readings of 500 parts per million methane or greater is found. If the Tier 4 surface emissions report shows no surface emissions readings of 500 parts per million methane or greater for four consecutive quarters at a closed landfill, then the landfill owner or operator may reduce Tier 4 monitoring from a quarterly to an annual frequency. The District may request such additional information as may be necessary to verify the reported instantaneous surface emission readings. The Tier 4 surface emissions report must clearly identify the location, date and time (to nearest second), average wind speeds including wind gusts, and reading (in parts per million) of any value 500 parts per million methane or greater, other than non-repeatable, momentary readings. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places. The Tier 4 surface emission report must also include the results of the most recent Tier 1 and Tier 2 results in order to verify that the landfill does not exceed 50 Mg/yr of NMOC. [40 CFR 60.767(c)(4)(iii)] Federally Enforceable Through Title V Permit
29. The initial Tier 4 surface emissions report must be submitted to the District annually, starting within 30 days of completing the fourth quarter of Tier 4 surface emissions monitoring that demonstrates that site-specific surface methane emissions are below 500 parts per million methane. [40 CFR 60.767(c)(4)(iii)(A)] Federally Enforceable Through Title V Permit
30. The Tier 4 surface emissions report must be submitted to the District within 1 year of the first measured surface exceedance of 500 parts per million methane. [40 CFR 60.767(c)(4)(iii)(B)] Federally Enforceable Through Title V Permit
31. The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters must provide a notification of the date(s) upon which it intends to demonstrate site-specific surface methane emissions are below 500 parts per million methane, based on the Tier 4 provisions of 40 CFR 60.764(a)(6). The landfill must also include a description of the wind barrier to be used during the surface emission monitoring (SEM) in the notification. Notification must be postmarked not less than 30 days prior to such date. [40 CFR 60.767(l)(1)] Federally Enforceable Through Title V Permit
32. If there is a delay to the scheduled Tier 4 SEM date due to weather conditions, including not meeting the wind requirements in §60.764(a)(6)(iii)(A), the owner or operator of a landfill shall notify the Administrator by email or telephone no later than 48 hours before any delay or cancellation in the original test date, and arrange an updated date with the District or EPA by mutual agreement. [40 CFR 60.767(l)(2)] Federally Enforceable Through Title V Permit
33. 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. Either paper copy or electronic formats are acceptable. [40 CFR 60.768(a)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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34. Landfill owners or operators seeking to demonstrate that site-specific surface methane emissions are below 500 parts per million by conducting surface emission monitoring under the Tier 4 procedures specified in 40 CFR 60.764(a)(6) must keep for at least 5 years up-to-date, readily accessible records of all surface emissions monitoring and information related to monitoring instrument calibrations conducted according to sections 8 and 10 of Method 21 of appendix A of this part, including all of the following items: (1) Calibration records: (i) Date of calibration and initials of operator performing the calibration. (ii) Calibration gas cylinder identification, certification date, and certified concentration. (iii) Instrument scale(s) used. (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value. (v) If an owner or operator makes their own calibration gas, a description of the procedure used. (2) Digital photographs of the instrument setup, including the wind barrier. The photographs must be time and date-stamped and taken at the first sampling location prior to sampling and at the last sampling location after sampling at the end of each sampling day, for the duration of the Tier 4 monitoring demonstration. (3) Timestamp of each surface scan reading: (i) Timestamp should be detailed to the nearest second, based on when the sample collection begins. (ii) A log for the length of time each sample was taken using a stopwatch (e.g., the time the probe was held over the area). (4) Location of each surface scan reading. The owner or operator must determine the coordinates using an instrument with an accuracy of at least 4 meters. Coordinates must be in decimal degrees with at least five decimal places. (5) Monitored methane concentration (parts per million) of each reading. (6) Background methane concentration (parts per million) after each instrument calibration test. (7) Adjusted methane concentration using most recent calibration (parts per million). (8) For readings taken at each surface penetration, the unique identification location label matching the label specified in paragraph (d) of this section; and (9) Records of the operating hours of the gas collection system for each destruction device. [40 CFR 60.768(g)] Federally Enforceable Through Title V Permit
35. Permittee shall recalculate the landfill gas heat input capacity annually until the landfill submits a closure notification report. [17 CCR 95463]
36. Permittee shall keep records of the annual solid waste acceptance rate and the current amount of waste-in-place. [17 CCR 95470]
37. Permittee shall keep records of delays encountered during repair of surface emission leaks. Documentation of delays shall be submitted with the annual report. [17 CCR 95468]
38. Permittee shall identify areas which are dangerous and unable to be inspected. Areas shall be clearly identified on a map of the facility. A copy of the map shall be kept onsite as well as submitted with the annual report. [17 CCR 95468]
39. Permittee shall conduct monitoring of the landfill surface within 3 inches of the surface. The facility may monitor surface emissions with the probe tip at the height of the vegetation if there is vegetation and it is impractical to monitor at 3 inches from the landfill surface. [17 CCR 95468]
40. Permittee shall terminate surface emission testing when the measured average wind speed is over 10 mph or the instantaneous wind speed is over 20 mph. [17 CCR 95468, 17 CCR 95471]
41. Permittee shall only conduct surface emission testing when precipitation has met the following requirements. It has been 24 hours since measured precipitation of 0.01 to 0.15 inches. It has been 48 hours since measured precipitation of 0.16 to 0.24 inches. It has been 72 hours since measured precipitation of 0.25 or more inches. [17 CCR 95468]
42. Instantaneous landfill surface emissions measurements shall be done annually. [17 CCR 95468]
43. Instantaneous landfill surface methane emissions shall not exceed 500 ppmv as methane. [17 CCR 95465]
44. Permittee shall submit the following reports as required in section 95470(b): Closure notification, Waste in place report and Landfill gas heat input capacity report. All reports must be accompanied by a certification of truth, accuracy, and completeness signed by a responsible official. [17 CCR 95470]
45. Permittee may comply with the CARB regulation for landfill methane control measures by using approved alternative compliance options. The permittee shall obtain written District approval for the use of any alternative compliance options not specifically approved by this permit. Changes to the approved alternate compliance options must be made and approved in writing. Documentation of approved alternative compliance options shall be available for inspection upon request. [17 CCR 95468]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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46. {1958} 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]

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ATTACHMENT B

Detailed Facility List

Detailed Facility Report
For Facility=5018 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

MERCED COUNTY DEPARTMENT OF PUBLIC WORKS	FAC #	N 5018	TYPE:	TitleV	EXPIRE ON:	04/30/2024
SOLID WASTE DIVISION	STATUS:	A	TOXIC ID:	70169	AREA:	2 /
17173 S BILLY WRIGHT RD	TELEPHONE:				INSP. DATE:	03/22
LOS BANOS, CA						

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
N-5018-5-0	39.8 Acres	3020-12 H	1	1,649.00	1,649.00	A	MUNICIPAL SOLID WASTE LANDFILL

Number of Facilities Reported: 1

ATTACHMENT C

Exempt Equipment



San Joaquin Valley Unified Air Pollution Control District

Title V Application - INSIGNIFICANT ACTIVITIES



COMPANY NAME: Billy Wright Landfill

FACILITY ID: N -5018

Check the box next to the exemption category from Rule 2020 which describes any insignificant activity or equipment at your facility not requiring a permit.

Exemption Category	Rule 2020 Citation	√	Exemption Category	Rule 2020 Citation	√
Structure or incinerator assoc. with a structure designed as a dwelling for 4 families or less	4.1		Containers used to store refined lubricating oils	6.6.8	√
Locomotives, airplanes, and watercraft used to transport passengers or freight	4.4		Unvented pressure vessels used exclusively to store liquified gases or assoc with exempt equipment	6.6.9 or 6.13	
Natural gas or LPG-fired boilers or other indirect heat transfer units of 5 MMBtu/hr or less	6.1.1	√	Portable tanks used exclusively to store produced fluids for ≤ six months	6.6.10	
Piston-type i.c.engine with maximum continuous rating of 50 braking horsepower (bhp) or less	6.1.2	√	Mobile transport tanks on delivery vehicles of VOCs	6.6.11	
Gas turbine engines with maximum heat input rating of 3 MMBtu/hr or less	6.1.3		Loading racks used for the transfer of less than 4,000 gal/day of unheated organic material with initial boiling point ≥ 302 F or of fuel oil with specific gravity ≥ 0.8251	6.7.1.1	
Space heating equipment other than boilers	6.1.4	√	Loading racks used for the transfer of asphalt, crude or residual oil stored in exempt tanks, or crude oil with specific gravity ≥ 0.8762	6.7.1.2	
Cooling towers with a circulation rate less than 10,000 gal/min, and that are not used for cooling of process water, or water from barometric jets or condensers++	6.2		Equipment used exclusively for the transfer of refined lubricating oil	6.7.2	√
Use of less than 2 gal/day of graphic arts materials	6.3		Equipment used to apply architectural coatings	6.8.1	√
Equipment at retail establishments used to prepare food for human consumption	6.4.1		Unheated, non-conveyorized cleaning equipment with < 10 ft ² open area; using solvents with initial boiling point ≥ 248 F; and < 25 gal/yr. evaporative losses	6.9	
Ovens at bakeries with total daily production less than 1,000 pounds and exempt by sec. 6.1.1	6.4.3		Brazing, soldering, or welding equipment	6.10	√
Equipment used exclusively for extruding or compression molding of rubber or plastics, where no plastisizer or blowing agent is used	6.5		Equipment used to compress natural gas	6.11	
Containers used to store clean produced water	6.6.1		Fugitive emissions sources assoc. with exempt equipment	6.12	
Containers ≤100 bbl used to store oil with specific gravity ≥ 0.8762	6.6.2		Pits and Ponds as defined in Rule 1020	6.15	
Containers ≤ 100 bbl installed prior to 6/1/89 used to store oil with specific gravity ≥ 0.8762	6.6.3		On-site roadmix manufacturing and the application of roadmix as a road base material	6.17	
Containers with a capacity ≤ 250 gallons used to store organic material where the actual storage temperature <150 F	6.6.4	√	Emissions less than 2 lb/day from units not included above	6.19	√
Containers used to store unheated organic material with an initial boiling point ≥ 302 F	6.6.5		Venting PUC quality natural gas from for sole purpose of pipeline and compressor repair and or maintenance	7.2	
Containers used to store fuel oils or non-air-blown asphalt with specific gravity ≥ 0.9042	6.6.6		Non-structural repairs & maintenance to permitted equipment	7.3	
Containers used to store petroleum distillates used as motor fuel with specific gravity ≥ 0.8251	6.6.7		Detonation of explosives ≤ 100 lb/day and 1,000 lb/year	7.4	

No insignificant activities (Check this box if no equipment in the above categories exist at your facility.)

ATTACHMENT D

Permits to Operate

San Joaquin Valley

Air Pollution Control District

PERMIT UNIT: N-5018-5-0

EXPIRATION DATE: 04/30/2024

SECTION: 27 **TOWNSHIP:** 9S **RANGE:** 9E

EQUIPMENT DESCRIPTION:
MUNICIPAL SOLID WASTE LANDFILL

PERMIT UNIT REQUIREMENTS

1. Permittee shall recalculate the landfill gas heat input capacity annually until the landfill submits a closure notification report. [17 CCR 95463]
2. Permittee shall keep records of the annual solid waste acceptance rate and the current amount of waste-in-place. [17 CCR 95470]
3. Permittee shall keep records of delays encountered during repair of surface emission leaks. Documentation of delays shall be submitted with the annual report. [17 CCR 95468]
4. Permittee shall identify areas which are dangerous and unable to be inspected. Areas shall be clearly identified on a map of the facility. A copy of the map shall be kept onsite as well as submitted with the annual report. [17 CCR 95468]
5. Permittee shall conduct monitoring of the landfill surface within 3 inches of the surface. The facility may monitor surface emissions with the probe tip at the height of the vegetation if there is vegetation and it is impractical to monitor at 3 inches from the landfill surface. [17 CCR 95468]
6. Permittee shall terminate surface emission testing when the measured average wind speed is over 10 mph or the instantaneous wind speed is over 20 mph. [17 CCR 95468, 17 CCR 95471]
7. Permittee shall only conduct surface emission testing when precipitation has met the following requirements. It has been 24 hours since measured precipitation of 0.01 to 0.15 inches. It has been 48 hours since measured precipitation of 0.16 to 0.24 inches. It has been 72 hours since measured precipitation of 0.25 or more inches. [17 CCR 95468]
8. Instantaneous landfill surface emissions measurements shall be done annually. [17 CCR 95468]
9. Instantaneous landfill surface methane emissions shall not exceed 500 ppmv as methane. [17 CCR 95465]
10. Permittee shall submit the following reports as required in section 95470(b): Closure notification, Waste in place report and Landfill gas heat input capacity report. All reports must be accompanied by a certification of truth, accuracy, and completeness signed by a responsible official. [17 CCR 95470]
11. Permittee may comply with the CARB regulation for landfill methane control measures by using approved alternative compliance options. The permittee shall obtain written District approval for the use of any alternative compliance options not specifically approved by this permit. Changes to the approved alternate compliance options must be made and approved in writing. Documentation of approved alternative compliance options shall be available for inspection upon request. [17 CCR 95468]
12. 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]

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