MONTEREY BAY
AIR RESOURCES DISTRICT

NOTIFICATION OF PRELIMINARY DECISION BY THE MONTEREY BAY AIR RESOURCES DISTRICT TO ISSUE A RENEWAL AND MAJOR MODIFICATION OF THE FEDERAL OPERATING (TITLE V) PERMIT TO THE MONTEREY REGIONAL WASTE MANAGEMENT DISTRICT

Pursuant to Rule 218, the Monterey Bay Air Resources District solicits written public comments to the preliminary decision to approve the issuance of a Renewal and Major Modification of the Title V Permit to the Monterey Regional Waste Management District (MRWMD) for their existing Monterey Peninsula Landfill located north of Marina, CA in unincorporated Monterey County.

The Monterey Regional Landfill is subject to the requirements of the federally mandated Title V permitting program. The Title V permit to be issued will contain all applicable federal requirements, and will not change the operation of the landfill.

The facility has added a new enclosed ground flare to their existing four landfill gas engine-generator sets. In addition, the facility has installed a temporary landfill gas H_2S removal system.

The proposed permit will be forwarded to the US EPA for a 45-day review period. The District will not issue a permit to which EPA objects. The public may petition the US EPA, Region 9, Operating Permits Section, within 60 days after the US EPA 45-day review period to object the issuance of the final permit. This petition shall be based only on objections that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise the issue during that time period.

MRWMD's application and the District Evaluation Report of this project are available for public inspection at the District office and website at www.mbard.org.

The public has an opportunity to review and comment on the proposed Project. Under special circumstances, the District may hold a public hearing. Written comments must be submitted to the address below and be postmarked by January 14, 2019.

Monterey Bay
Air Resources District
24580 Silver Cloud Court
Monterey, CA 93940
(831) 647-9411
ajimenez@mbard.org
Attn: Armando Jimenez

MONTEREY AIR RESOURCES DISTRICT
TITLE V OPERATING PERMIT RENEWAL AND MODIFICATION
STATEMENT OF BASIS

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

Dated: December, 2018

APPLICATION RECEIVED FROM:

Monterey Regional Waste Management District
Monterey Peninsula Landfill
P.O. Box 1670
Marina, CA 93933-1670

PLANT SITE LOCATION:

14201 Del Monte Blvd.
Monterey County, California

APPLICATION PROCESSED BY:

Armando Jimenez, Air Quality Engineer

Nature of Business: Municipal Solid Waste Landfill

SIC Code: 4953 - Refuse Systems

RESPONSIBLE OFFICIAL:

Name: Mr. Tim Flanagan
Title: General Manager
Phone: (831) 264-6915

ALTERNATE RESPONSIBLE OFFICIAL:

Name: Mr. Guy Petraborg
Title: Director of Engineering & Compliance
Phone: (831) 264-6385

FACILITY CONTACT PERSON:

Name: Mr. Guy Petraborg
Title: Director of Engineering & Compliance
Phone: (831) 264-6385

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FACILITY DESCRIPTION

Pursuant to Rule 218 of the Monterey Bay Air Resources District (District) Rules and Regulations, the District intends to issue a Title V Operating Permit Renewal and Major Modification to the Monterey Regional Waste Management District's (MRWMD) Monterey Peninsula Landfill (MPL). MRWMD operates a Municipal Solid Waste (MSW) landfill at the Monterey Peninsula Landfill located north of Marina, CA in unincorporated Monterey County. The facility is permitted by CalRecycle to receive a maximum of 3,500 tons per day of MSW with approximately 10 million tons of waste in place as of the end of December 2015. The facility has been accepting waste since the site opened in 1966.

The landfill is subject to the federal New Source Performance Standard (NSPS) for Municipal Solid Waste Landfills based upon the design capacity of the landfill being greater than 2.5 million cubic meters. Landfills subject to the MSW Landfill NSPS are also subject to Title V permitting. The facility also exceeds the major source threshold of 100 tons per year of CO emissions and is subject to Title V permitting. The Operating Permit includes conditions to ensure that all federal requirements are satisfied.

The previous Title V Permit referred to the landfill as the Marina Landfill. The proposed permit will be updated to reflect the correct name of the landfill as Monterey Peninsula Landfill.

EQUIPMENT DESCRIPTION

Located at the landfill is a landfill gas collection, treatment, and destruction system which is projected to exceed 50 Mg per year of non-methane organic compounds (NMOC) in 2020. The gas collection, treatment, and destruction system will need to meet the NSPS requirements. The collected landfill gas is treated and combusted in four (4) internal combustion engines and/or in an enclosed flare. The internal combustion engines drive generators that produce approximately 5 Mw.

The facility has undergone both administrative and process changes. The administrative changes include change of responsible official and facility contact. The administrative changes are noted in the attached proposed Title V Permit. The process changes include the following:

- Removal of 1,350 SCFM portable candlestick flare.
- Installation of a new 4,000 SCFM or 120 MMBtu/hr enclosed ground flare to replace portable candlestick flare.
- In kind replacement of existing engine in engine-generator set #2 rated at 1,400 bhp and 1.0 Mw output with an equivalent engine rated at 1,468 bhp.
- In kind replacement of existing engine in engine-generator set #3 rated at 1,400 bhp and 1.0 Mw output with an equivalent engine rated at 1,387 bhp.
- In kind replacement of existing engine in engine-generator set #4 rated at 1,986 bhp and 1.4 Mw output with an equivalent engine rated at 1,986 bhp. The equipment description in the Title V Permit will remain the same.
- Installation of a temporary landfill gas H_2S removal system.
- Permitted existing in-use diesel emergency generator. Unit will be listed under ancillary equipment in the Title V Permit equipment description.

- Per MRWD Solid Waste Facility Permit number 27-AA-0010 issued by CalRecycle, the facility's permitted area is a total of 461 acres of which 315 acres are permitted for waste disposal. The equipment description will be updated to reflect the total permitted area of 461 acres.

Below are the proposed changes to the equipment description:

1. ~~470~~ 461 Acre Landfill Site Of Which 315 Acres Are Permitted For Waste Disposal.

2. Landfill Gas Collection Systems, Vertical Wells, Lateral Collector Pipes, Header Pipe, And Gas Movers To Collect And Route Landfill Gas To The Landfill Gas Destruction Systems.

3. Landfill Gas Destruction Systems:

   A) One Landfill Gas Engine-Generator Set, Nominally Rated At 2,233 Bhp And 1.6 Mw Output. (Facility Identification - Engine-Generator Set #1).

   B) One Landfill Gas Engine-Generator Set, Nominally Rated At 1,986 Bhp And 1.4 Mw Output. (Facility Identification - Engine-Generator Set #4).

   ~~C) Two Landfill Gas Engine-Generator Sets, Each Nominally Rated At 1,400 Bhp And 1 Mw Output. (Facility Identification - Engine-Generator Sets #2 and #3).~~

   C) One Landfill Gas Engine Generator Set, Nominally Rated At 1,468 Bhp And 1 Mw Output. (Facility Identification – Engine Generator Set # 2).

   D) One Landfill Gas Engine Generator Set, Nominally Rated At 1,387 Bhp And 1 Mw Output. (Facility Identification – Engine Generator Set # 3).

   ~~D)~~E) ~~Portable Candlestick Flare, Rated At 500 CFM 1,350 SCFM Gas Capacity.~~ One Enclosed Ground Flare, Rated At 120 MMBtu/hr With A Maximum Landfill Gas Flow Rate Of 4,000 SCFM.

4. Ancillary Equipment

   Gasoline Storage Tank

   Wood Processing Facility

   Emergency Diesel-Powered Engine Generator Set

   Temporary Portable Landfill Gas H_2S Emission Control System

APPLICABLE FEDERAL REQUIREMENTS

Applicable Requirement	Equipment Affected
Rule 200, Permits Required	Facility Wide
Rule 201, Sources Not Requiring Permits	Facility Wide
Rule 207, Review of New or Modified Sources	Facility Wide
Rule 214, Breakdown Condition	Facility Wide
Rule 218, Title V: Federal Operating Permits	Facility Wide
Rule 308, Title V: Federal Operating Permit Fees	Facility Wide
Rule 400, Visible Emissions	Facility Wide
Rule 403, Particulate Matter	Facility Wide
Rule 404, Sulfur Compounds and Nitrogen Oxides	Enclosed Ground Flare, Landfill Gas Engine Generator Sets #1 - #4 Ancillary Emergency Diesel-Powered Generator
Rule 412, Sulfur Content Fuels	Enclosed Ground Flare, Landfill Gas Engine Generator Sets #1 - #4 Ancillary Emergency Diesel-Powered Generator
Rule 426, Architectural Coatings	Facility Wide
Rule 437, Municipal Solid Waste Landfills	Facility Wide
40 CFR Part 60, Subpart A, New Source Performance Standards (NSPS), General Provisions	Facility Wide
40 CFR Part 60, Subpart WWW, NSPS For Municipal Solid Waste Landfills	Facility Wide
40 CFR Part 64, Compliance Assurance Monitoring	Facility Wide
40 CFR Part 60, Subpart IIII, NSPS For Stationary Compression Ignition Internal Combustion Engine	Ancillary Emergency Diesel-Powered Generator
40 CFR Part 60, Subpart JJJJ, NSPS For Spark Ignition Internal Combustion Engines	Landfill Gas Engine Generator Sets #1 - #4
40 CFR Part 63, Subpart ZZZZ, NESHAPS For Stationary Reciprocating Internal Combustion Engines	Landfill Gas Engine Generator Sets #1 - #4 and Ancillary Emergency Diesel-Powered Generator
40 CFR Part 63, Subpart AAAA, NESHAPS For Municipal Solid Waste Landfills	Facility Wide

COMPLIANCE DETERMINATION FOR APPLICABLE FEDERAL REQUIREMENTS

Rule 200 – Permits Required

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

Rule 201 – Sources Not Requiring Permits
This rule identifies which equipment is exempt from District permitting requirements.

Rule 207 – Review of New or Modified Sources
The rule applies to all new stationary sources and all modifications to existing stationary sources. The District has established that any landfill (a place used for the disposal of garbage where the rubbish, etc. is buried under a shallow layer of ground) is not subject to local District permitting. This is because a landfill does not trigger local District permitting requirements for any article, machine, equipment or other contrivance. Therefore, this landfill has not been reviewed under the District new source review rule and no conditions from this rule will be included on the permit for the landfill proper.

However, other operations or processes related to and located at the landfill site may require local permits. This is the case for the replacement of the engine generator sets, installation of the new enclosed ground flare and the installation of the temporary portable H_2S removal system. The District evaluated the new source review (NSR) for the replacement of the engine generators under applications GNR-017016 and GNR-017017. The NSR requirements for the installation of the enclosed ground flare were evaluated under application 15999. The NSR requirements for installation of the temporary portable H_2S removal system were evaluated under application GNR-017689.

The engine generators were replaced with identical engines (same engine manufacturer, engine model and rating) with emissions less than or equal to the original engines, as defined in Rule 207 Section 2.33.8.3. Thus, NSR is not required for the engine generator replacement. Per Section 1.2, this Rule applies to all new stationary sources and all modifications to existing stationary sources which, after construction or modification, emit or have the potential to emit any affected pollutants. Since the temporary portable H_2S removal system does not have the potential emissions of any affected pollutants, the requirements of this Rule do not apply.

The installation of the new enclosed ground flare rated at 4,000 SCFM or 120 MMBtu/hr is subject to NSR. Rule 207 requires an applicant to install Best Available Control Technology (BACT) to a new stationary source when the emissions thresholds listed in Sections 4.1.1, Federal BACT, and 5.2, California BACT, are reached.

Landfill Gas Flare Emissions
The potential emissions from the enclosed ground landfill gas flare are shown in Table 1. The emission factors were proposed by the facility.

Table 1. Enclosed Ground Landfill Gas Flare Emissions.

Pollutant	Fuel Rate (MMBtu/day)	Emission Factor (lb/MMBtu)	Daily Emissions (lb/day)
NO_x	2,880	0.051	146.88
CO	2,880	0.18	518.4
VOC	2,880	0.03	86.4
SO_2	2,880	--	<150
$PM=PM_{10}=PM_{2.5}$	2,880	0.168	483.84

[1] SO_2 emissions are dependent on the H_2S concentration found on the landfill gas and are assumed based on full

conversation from H_2S to SO_2. The flare and the facility have been limited to less than 150 pounds per day. Elevated H_2S concentrations were observed in the middle of 2016.

The landfill gas at the facility has experienced a spike in H_2S concentration from less than 180 ppm to up to 791 ppm. The facility has installed a temporary H_2S removal system consisting of a roll-off vessel with high porosity iron-oxide media. The facility will be required to evaluate the performance of the temporary H_2S removal system and to submit an application for a permanent solution.

Federal BACT Determination
Table 2 shows the Federal BACT thresholds of Section 4.1.1 and the facility emissions increases occurring after October 20, 2010 for $PM_{2.5}$, or after August 19, 1983 for PM_{10} or after July 15, 1976 for any other affected pollutant.

Table 2. Federal BACT Determination.

Source	NO_x (lb/day)	VOC (lb/day)	CO (lb/day)	SO_x (lb/day)	PM (lb/day)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Wood Processing					7.3	3.0	0.5
Engine-Gen Set #1[1]	70.8	70.8	354.2	<150	18.9	18.9	18.9
Engine-Gen Set #2[1]	65.5	10.8	243.1	<150	10.1	10.1	10.1
Engine-Gen Set #3[1]	43.9	13.9	220.1	<150	11.7	11.7	11.7
Engine-Gen Set #4[1]	62.9	20.9	314.9	<150	17.3	17.3	17.3
Enclosed Ground Flare	146.8	86.4	518.4	<150	57.6	48.4	48.4
Emergency IC Engine[2]	43.7	2.2	37.90	0.07	1.7	1.7	N/A
Gas Dispensing[3]		N/A					
Temporary Landfill Gas H_2S Emission Control System	0	0	0	0	0	0	0
Total	433.6	205.0	1,688.6	<150	126.4	112.9	106.9
Federal BACT Threshold	150	150	550	<150	150	82	54.79

[1] The facility has agreed to keep the facility wide SO_2 emissions below 150 pounds.
[2] Permitted before 2010, thus $PM_{2.5}$ emissions are not counted towards the 'new emissions increases' threshold of Rule 207, Section 4.1.1.
[3] Per Rule 207, Section 1.3.1, gasoline storage and dispensing equipment subject to District Rule 418 (Transfer of Gasoline into Stationary Storage Containers) and 1002 (Transfer of Gasoline into Vehicle Fuel Tanks) are exempt from the requirements of Rule 207.

California BACT Determination
Table 3 shows the California BACT thresholds of Section 5.2 and proposed project emissions.

Table 3. California BACT Determination.

Source	NO_x	VOC
Enclosed Ground Flare	146.8	86.4
CA BACT Threshold	25	25

Table 2 and 3 show that the enclosed ground flare exceeds the BACT thresholds for NO_x, VOC, CO, PM_{10} and $PM_{2.5}$.

Table 4 shows the BACT determination for the enclosed ground flare.

Table 4. Enclosed Ground Flare BACT Determination.

Pollutant	BACT Proposal	BACT Determination
NO_x	0.051 lbs/MMBtu	Approved
VOC	0.03 lbs/MMBtu	Approved
CO	0.18 lbs/MMBtu	Approved
PM	Combustion of gaseous fuel	Approved
PM_{10}	Combustion of gaseous fuel	Approved
$PM_{2.5}$	Combustion of gaseous fuel	Approved

Offsets are required from a new or modified stationary source when the net emissions thresholds listed in Sections 4.2.2, Federal Offsets, and 5.3, California Offsets, are reached.

Federal Offsets Determination
Table 5 shows the Federal Offsets thresholds of Section 4.2.2 and the facility net emissions increase occurring since October 20, 2010 for $PM_{2.5}$, or after August 19, 1983 for PM_{10} or after July 15, 1976 for any other affected pollutant.

Table 5. Federal Offset Determination.

Source	NO_x (lb/day)	VOC (lb/day)	CO (lb/day)	SO_x (lb/day)	PM (lb/day)	PM_{10} (lb/day)
Wood Processing					7.3	3.0
Engine-Gen Set #1[1]	70.8	70.8	354.2	<150	18.9	18.9
Engine-Gen Set #2[1]	65.5	10.8	243.1	<150	10.1	10.1
Engine-Gen Set #3[1]	43.9	13.9	220.1	<150	11.7	11.7
Engine-Gen Set #4[1]	62.9	20.9	314.9	<150	17.3	17.3
Enclosed Ground Flare[1]	146.8	86.4	518.4	<150	57.6	48.4
Emergency IC Engine[2]	N/A	N/A	N/A	N/A	N/A	N/A
Gas Dispensing[3]		N/A				
Temporary Landfill Gas H_2S Emission Control System	0	0	0	0	0	0
Total[1]	389.9	202.8	1,650.7	<150	122.9	109.4
Federal BACT Threshold	150	150	550	150	150	82

[1] The facility has agreed to keep the facility wide SO_2 emissions below 150 pounds.
[2] Per Rule 207, Section 1.3.3, the offset requirements of Sections 4.2 and 5.3 do not apply to any emergency internal combustion engine.
[3] Per Rule 207, Section 1.3.1, gasoline storage and dispensing equipment subject to District Rule 418 (Transfer of Gasoline into Stationary Storage Containers) and 1002 (Transfer of Gasoline into Vehicle Fuel Tanks) are exempt from the requirements of Rule 207.

California Offsets Determination
Table 6 shows the California Offset thresholds of Section 5.3.1 and the enclosed ground flare emissions.

Table 6. California Offset Determination.

Application	Source	NO_x	VOC
15999	Enclosed Ground Flare	146.8	86.4
	CA Offset Threshold	137	137

Tables 5 and 6 show that the enclosed ground flare installation project exceeds the Offset thresholds for NO_x, VOC, CO and PM_{10}. The new enclosed ground flare will be used to combust landfill gas which is subject to the destruction efficiency of the NSPS Subpart WWW for Landfill Gas. Therefore, the project is exempt from the offsetting requirements of Rule 207 pursuant to the exemption contained in Subsection 1.3.2.1 for all pollutants with the exception of CO. The CO emissions increase exceeds the major source threshold and does not qualify for the offset exemption of Subsection 1.3.2.1. Per Section 6.9, which requires that projects that invoke the exemption of Subsection 1.3.2.1, the project was public notice on the Monterey Herald on January 27, 2015. The District did not receive comments during the 30-day public notice period.

Since the CO emissions increase exceeds the major source threshold, the project is subject to offsets for CO or the facility can model out of offsets pursuant to Subsection 4.2.3. The facility provided modeling data, see the air quality impact analysis section below, that shows the project will not cause or contribute to a violation of the ambient air quality standard, and therefore can be exempt from CO offsets pursuant to Subsection 4.2.3.

Air Quality Impact Analysis
The facility provided a simplified Air Quality Impact Analysis. This included screening modeling to determine the impacts of the project. These modeled impacts have been extracted from the application and have been combined with background concentrations to verify that the project would not contribute to violations of the Ambient Air Quality Standards.

Table 7 addresses the Air Quality Increment in Area E (where the facility is located and where the maximum impacts occur).

Table 7. Air Quality Impact Increment Analysis - Area E.

Pollutant	Maximum Modeled Impact ($\mu g/m^3$)	Designated Area E ($\mu g/m^3$)	Averaging Period	Below Allowable Increment Consumption?
CO	6.05	12,000	1-hour	Yes
NO_2	0.18	25	annual	Yes
PM_{10}	0.05	10.8	annual	Yes
	0.20	21.1	24-hour	Yes
$PM_{2.5}$	0.05	4	annual	Yes
	0.20	9	24-hour	Yes
SO_2	0.16	20	annual	Yes
	0.63	91	24-hour	Yes
	1.42	512	3-hour	Yes

Table 7 indicates that the project does not exceed any air quality increment. Therefore, the project complies with the air quality increment provisions of Rule 207.

Table 8 identifies that when the downwind concentration from the flare is added to background concentrations, the ambient air quality standards are not exceeded. Therefore, the project complies with the Ambient Air Quality Standard provision of Rule 207.

Table 8. Cumulative Impacts vs. Ambient Air Quality Standards.

Pollutant	Avg. Period	Max Project Impact ($\mu g/m^3$)	Background Conc. ($\mu g/m^3$)	Total Impact ($\mu g/m^3$)	State Standard ($\mu g/m^3$)	Federal Standard ($\mu g/m^3$)	Below Applicable Standards?
CO	1-hour	6.05	1,787	1,793	23,000	40,000	Yes
	8-hour	4.24	1,390	1,394	10,000	10,000	Yes
NO_2	1-hour	1.82	84	85.82	470		Yes
	annual	0.18	8.4	8.58		100	Yes
PM_{10}	24-hour	0.20	48.9	49.1	50	150	Yes
	annual	0.05	27.7	27.75	30	50	Yes
$PM_{2.5}$	24-hour	0.20	14	14.2		65	Yes
	annual	0.05	6.1	6.15	12	15	Yes
SO_2	1-hour	1.58	156	158	655		Yes
	3-hour	1.42	140	141		1,300	Yes
	24-hour	0.63	39	40	105	365	Yes
	annual	0.16	0	0.2		80	Yes

Visibility Impacts
A visibility analysis of the project's gaseous emissions is required under Rule 207. The analysis addresses the contributions of the gaseous emissions and particulate emissions to visibility impairment of the nearest Class A areas, which are the Ventana Wilderness Area and the Pinnacles National Park to the south and southeast, respectively. The applicant used the EPA approved model VISCREEN to assess the project's visibility impacts. The results from the VISCREEN modeling analysis indicated that the project's visibility impacts would be below the significance criteria for contrast and perception. Therefore, the project's visibility impacts on Class A areas will be insignificant.

Permit conditions are included on the permit to comply with the requirements of Rule 207.

Rule 214 – Breakdown Conditions
This is the implementing regulation in which the District has established the criteria for reporting breakdowns. The requirements imposed by the SIP approved version of this rule will be included on this permit. The SIP approved version of this rule is that which was adopted on December 13, 1984.

Permit conditions are included on the permit to comply with the requirements of Rule 214.

Rule 218 – Title V: Federal Operating Permits
This is the implementing regulation by which the District issues the federal Operating Permits.

Permit conditions are included on the permit to comply with the requirements of Rule 218.

Rule 308 – Title V: Federal Operating Permit Fees
This is the District's fee rule for Title V. Appropriate conditions will be included on the Title V permit to ensure compliance with the fee provisions contained in this rule.

Permit conditions are included on the Title V permit to ensure compliance with the fee provisions contained in this rule.

Rule 400 – Visible Emissions
This rule is applicable to the emissions from the facility. Appropriate conditions will be included on the permit to ensure compliance with this rule.

Permit conditions are included on the permit to ensure compliance with this rule.

Rule 403 – Particulate Matter
This rule is applicable to the emissions from the facility. Section 3.1 sets an emission limit of 0.15 grains per standard dry cubic foot to the enclosed flare of the facility.

The new 120 MMBtu/hr enclosed ground flare has a particulate matter hourly emissions rate of 0.02 pounds per million Btu, which equates to a grain loading of 0.015 grains per dry cubic foot [(0.02 lb PM/MMBtu) (MMBTU/9,587 DSCF) (7,000 grains/lb) = 0.015 grains/DSCF]. Therefore, the flare is in compliance with the requirement of Rule 403. Source test conducted at the facility showed the F-Factor for the landfill gas at the facility is 9,587 DSCF/MMBtu with an average heating value of 477 Btu/ft^3.

Section 1.3.1 exempts stationary internal combustion engines from meeting the requirements of this Rule. Thus the engine-generator sets are not subject to the requirements of Rule 403.

Permit conditions are included on the permit to ensure compliance with Rule 403.

Rule 404 – Sulfur Compounds and Nitrogen Oxides
The requirements of Rule 404 apply to the emissions from the facility. This rule limits sulfur compounds calculated as sulfur dioxide at 0.2 percent by volume (2,000 ppmv) and limits NO_x emissions to 140 pounds per hour.

Compliance with the 0.2% by volume (2,000 ppmv) limit for SO_2 for combustion of landfill gas in the enclosed ground flare is assured due to the permit limit of 150 pounds per day or 6.25 pounds per hour. Utilizing the emission factor of 6.25 pounds per hour and the stack flow of 19,174 DSCFM [(120 MMBtu/hr) (1 hr/60 min) (9,587 ft^3/MMBtu) = 19,174 ft^3/min)], the SO_2 concentration equates to 32.7 ppm [(6.25 lb/hr) (lbmole/64 lb SO_2) (385.3 ft^3/lbmole) (1 min/19,174 ft^3) (hr/60 min) (1E06) = 32.7 ppm]. This value is well below the 2000 ppmv SO_2 allowed in this rule.

Compliance with the 0.2% by volume (2,000 ppmv) limit for SO_2 for combustion of landfill gas in the engine-generators is assured due to the permit limit included in all landfill gas combustion equipment which

requires that the SO_2 emissions be less than 150 pounds per day or 6.25 per hour. The highest SO_2 concentration will occur when the smallest engine, engine generator set #3, is limited to 6.25 pounds per hour. Utilizing the emission factor of 6.25 pounds per hour and the stack flow of 2,943 DSCFM (stack flow determined by source testing), the SO_2 concentration equates to 213.1 ppm [(6.25 lb/hr) (lbmole/64 lb SO_2) (385.3 ft^3/lbmole) (1 min/2,943 ft^3) (hr/60 min) (1E06) = 213.1 ppm]. This value is well below the 2000 ppmv SO_2 allowed in this rule.

Compliance with the 0.2% by volume (2,000 ppmv) limit for SO_2 for combustion of diesel in the emergency diesel generator is assumed while using CARB ultra-low sulfur diesel fuel which contains no more than 15 parts per million by weight of sulfur compounds.

Therefore, no monitoring/testing or record keeping will be included on the permit to show compliance with the SO_2 limit for the combustion of landfill gas in the flare or the engine generators.

The 140 pound per hour NO_x limit for any new or expanded combustion unit is applicable to the enclosed ground flare. Compliance with this limit is assured due to the following calculation for the enclosed ground flare which shows an hourly NO_x emission rate of 6.12 lb NO_x/hour [(120 MMBtu/hr) (0.051 lb/MMBtu) = 6.12 lb NO_x/hr]. This value is well below the 140 pound per hour NO_x limit allowed in this rule. Therefore, no monitoring/testing or record keeping will be included on the permit to show compliance with the NO_x limit for the combustion of landfill gas in the enclosed ground flare.

The 140 pound per hour NO_x limit for any new or expanded combustion unit is applicable to the four landfill-powered engine-generators. The permit includes a federally enforceable emissions limit of 12.75 lbs NO_x/hour for the combined emissions from all four engine generators. Therefore, no monitoring/testing or record keeping will be included on the permit to show compliance with the NO_x limit for the engine-generators.

The 140 pound per hour NO_x limit for any new or expanded combustion unit is applicable to the diesel-powered emergency generator. The diesel engine has an emission rate of 1.82 lb NO_x/hr and is below the limit of 140 lb/hr. Therefore, no monitoring/testing or record keeping will be included on the permit to show compliance with the NO_x limit for the diesel-powered emergency engine-generator.

Permit conditions are included on the permit to ensure compliance with Rule 404.

<u>Rule 412 – Sulfur Content of Fuels</u>
Rule 412 requires that the sulfur content of fuels combusted be less than 50 grains per 100 cubic feet for gaseous fuels and is applicable to this facility.

Permit conditions are included on the permit to comply with the requirements of Rule 412.

<u>Rule 426 – Applications of Non-architectural Coatings</u>
This rule is applicable to all applications of Non-architectural coatings and limits the VOC content of these coatings. The facility is in compliance with the requirements of this rule.

Permit conditions are included on the permit to comply with the requirements of Rule 426.

Rule 437 – Municipal Solid Waste Landfills & 40 CFR Part 60, Subpart WWW – NSPS for Municipal Solid Waste Landfills

District Rule 437 adopts by reference the requirements of 40 CFR Part 60, Subpart WWW. This facility is subject to the requirements of this NSPS and District Rule. The facility has been submitting annual Tier 2 NMOC emissions report as specified in Section §60.752(b)(1(ii) that have shown that the facility's NMOC emissions are below 50 megagrams per year (Mg/yr). The 2016 annual report showed an annual NMOC emissions rate of 45.4 Mb/yr, while the 2017 annual report showed an annual NMOC emissions report of 36.5 Mg/r.

Permit conditions are included on the permit to comply with the requirements of this NSPS and District Rule 437.

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

This facility is subject to the requirements of 60.7 (notification and record keeping), 60.8 (performance tests), 60.11 (compliance with standards and maintenance requirements), and 60.13 (monitoring requirements) because they are subject to 40 CFR Part 60, Subpart WWW.

The District asserts that compliance with the conditions on the Title V permit shall be considered compliance with the monitoring, record keeping, and reporting requirements contained in 40 CFR Parts 60.7, 60.8, 60.11, and 60.13.

Permit conditions are included on the permit to comply with the requirements of this NSPS.

40 CFR Part 64 – Compliance Assurance Monitoring

The requirements of this subpart apply to emissions units at Title V facilities that meet all of the three criteria specified in 40 CFR Part 64 Section §64.2(a)(1-3). The three applicability criteria are:

- The emission unit must be subject to a Federal emission limitation or standard for a regulated air pollutant, other than an exempt limitation.
- The emission unit uses a control device to achieve compliance with any such emission limitation or standard.
- This emission unit has potential pre-control device emissions of the specific pollutant being controlled greater than the major facility emissions threshold for that pollutant.

Pursuant Section §64.2(b)(1)(i), the landfill waste decomposition process and its related emission control device, enclosed flare rated at 120 MMBTU/hr, and four landfill gas engine-generator sets are exempt from the CAM requirements, because the landfill and landfill gas control systems are subject to NSPS and NESHAPS requirements and these NSPS and NESHAP requirements were adopted pursuant to Sections 111 and 112 of the Clean Air Act after November 15, 1990. Since the applicable federal requirements contain adequate monitoring provisions, additional compliance monitoring is not necessary and CAM does not apply to landfill gas flare and landfill gas engine-generator sets.

40 CFR Part 60, Subpart IIII, NSPS for Stationary Compression Ignition Internal Combustion Engine

Pursuant to §60.4205(b), owners/operators of 2007 model and later stationary emergency diesel engine-generator sets with a displacement less than 30 liters must comply with §60.4202. In accordance with §60.4202(a)(2), the emission standards must meet those established in 40 CFR 89.112. The emissions standards for an engine rated at 225≤kW≤450 must meet the following standards: 4.0 g/ kw-hr for NMHC + NO_x, 0.2 g/kw-hr for PM and 3.5 g/kw-hr for CO. The ancillary diesel emergency engine has the following emissions, which are below the emissions standards of this Subpart: 2.9 g/ kw-hr for NMHC + NO_x, 0.11 g/kw-hr for PM and 2.39 g/kw-hr for CO. Thus, the engine meets the emission standards of this Subpart

40 CFR Part 60, Subpart JJJJ, NSPS for Spark Ignition Internal Combustion Engines

40 CFR, Part 60, Subpart JJJJ NSPS for spark-ignition (SI) internal combustion engines (ICE) applies to both engine manufacturers and engine owners. Per Section §60.4230(a)(4), this Subpart applies to engines that commence construction after June 12, 2006. Per Section §60.4230(a)(4)(i), this Subpart applies to engines that that commence construction on or after July 1 2007 for engines rated greater than 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP). The SI Engine #1 is a lean burn engine rated greater than 1,350 HP and was constructed prior to July 1, 2007. Thus, Engine #1 is not subject to this Subpart.

Per Section §60.4230(a)(5), this Subpart applies to owners and operators of stationary SI ICE that are modified or reconstructed after June 12, 2006. SI Engines #2, #3, and #4 were recently replaced in kind and were constructed after July 1, 2007 and are subject to the requirements of this Subpart. For landfill/digester gas fired engines ≥ 500 bhp manufactured after 7/1/2010, the emissions standards are as follows: 2.0 g/HP-hr for NOx, 5.0 g/HP-hr for CO and 1.0 g/HP-hr for VOC. SI Engine #2 meets the following emission standards: 0.75 g/bhp-hr for NO_x, 3.125 g/bhp-hr for CO, and 0.3 g/bhp-hr or VOC. SI Engines #3, and #4 have the following emission standards: 0.6 g/bhp-hr for NO_x, 3.6 g/bhp-hr for CO, and 0.2 g/bhp-hr for VOC. Thus, the engines meet the emission standards of this Subpart.

40 CFR Part 63, Subpart ZZZZ, NESHAPS for Stationary Reciprocating Internal Combustion Engines

The facility is an area source of hazardous air pollutants (HAP) emissions.

Pursuant to Section §63.6590(a)(1)(ii), this Subpart applies to stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006. Lean burn gas engine-generator set #1 was constructed before June 12, 2006. SI engine #1 is subject to the requirements of this regulation. Specifically, the engine is subject to Management Practice, Operations and Record Keeping requirements. Appropriate conditions will be included on the permit to ensure compliance with the requirements of this NESHAP that pertain to this facility.

40 CFR Part 63, Subpart AAAA – NESHAPS for Municipal Solid Waste Landfills

The requirements of this Subpart apply to any 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:

- Landfill is a major source of hazardous air pollutants (HAPs)

- Landfill is collocated with a major source of HAPs
- Landfill is an area source landfill that has a design capacity equal to or greater than 2.5 million Mg and 2.5 million cubic meters (m^3) and has estimated uncontrolled emissions equal to or greater than 50 Mg/yr NMOC.

As stated above the estimated annual NMOC emissions are below 50 Mg/yr. Thus, the facility is not subject to the requirements of this Subpart.

Permit conditions will be included on the permit to comply with the requirements of this NESHAPS.

THE FOLLOWING CONDITIONS WILL BE INCLUDED ON THE TITLE V PERMIT:

The permit conditions listed on the Title V Permit are derived from District issued Authorities to Construct or Permits to Operate. The permit also includes the regulatory basis for each permit condition. Permit conditions are divided into the following sections: federally enforceable limits and standards, testing requirements and procedures, record keeping requirements, reporting requirements, and general conditions.

Permit conditions will be updated to reflect the replacement of the portable candlestick flare with the new enclosed ground flare. A new condition will be added to add the requirement of 40 CFR Part 63, Subpart AAAA to develop a startup, shutdown and malfunction plan. Per Section §63.1945(e), the plan must be developed by the date the landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of Subpart WWW.

For rule citations that cite District Rules which incorporate Federal Rules by reference, the District is proposing to add a citation to the Federal Rules being referenced. For example, for citations to District Rule 437, Municipal Solid Waste Landfills, which references 40 CFR Part 60, Subpart WWW, the citation will include Rule 437 and 40 CFR Part 60, Subpart WWW.

FEDERALLY ENFORCEABLE EMISSION LIMITS AND STANDARDS

New conditions will be added for the new enclosed ground landfill gas flare. A new condition will be added to add the requirements of 40 CFR 63, Subpart AAAA.

The District proposes to delete Conditions 1 and 2. Condition 1 limited the amount of landfill gas vented to the candlestick flare. Condition 2 allowed operation of the candlestick flare only during the repair or maintenance of the gas control system, or to address offsite gas migration issues. The facility has removed the candlestick flare.

The District is proposing to remove Condition 1 since the facility has removed the candlestick flare.

Proposed deletion of Condition 1:

~~*1. The amount of landfill gas vented to the flare shall not exceed 1,350 SCFM. [District Rule 207]*~~

The District is proposing to remove Condition 2 since the facility has removed the candlestick flare.

Proposed deletion of Condition 2:

~~*2. The landfill gas flare shall only be operated during the repair or maintenance of the gas control system, or to address offsite gas migration issues. [District Rule 207]*~~

The District proposes to add the following new conditions for the new enclosed ground flare.

Proposed new Conditions:

- *The heat input rate to the flare shall not exceed 120.0 MMBtu/hr. [District Rule 207]*

- *Emissions from the flare shall not exceed the following limits: [District Rule 207]*

Pollutant	*Emission Factor (lbs/MMBtu)*	*Total Emissions (lbs/day)*
NO_x	*0.051*	*146.88*
CO	*0.18*	*518.4*
VOC	*0.03*	*86.4*

- *The minimum combustion zone temperature limit for the flare shall be equal to the average combustion temperature determined during the most recent complying source test minus 50°F, provided that the limit is not less than 1,400°F. The combustion temperature of the landfill gas flare shall be maintained at or above 1,400°F or the limit determined by the most recent source test (whichever temperature is higher), averaged over all three-hour periods, excluding periods of startup, shutdown, and malfunction. The process time that it takes to complete a startup or shutdown shall not exceed one (1) hour. [District Rule 207 and 40 CFR 60 Subpart WWW]*

- *The minimum residence time in the flare shall be 0.6 seconds. [District Rule 207]*

- *Oxides of Sulfur (SO_x) emissions from the entire facility, including engine generator sets #1, #2, #3 #4 and the flare, shall be less than 150 pounds per day. SO_x emissions shall be calculated (based on daily total fuel flow to all landfill gas fired equipment and the latest monthly H_2S analysis of the landfill gas) and recorded on a daily basis to verify compliance with this condition. [District Rule 207]*

The District proposes to revise Condition 3 to list the emissions limits for Engine #4 in pounds per hour rather than ppm. The District is proposing to list the corresponding emission factors used to determine the emissions in pounds per hour.

Proposed revised Condition 3:

3. The emissions from engine-generator set #4 shall not exceed the following ~~concentration~~ emission limits [District Rule 207 & 40 CFR Part 60, Subpart JJJJ]:

Pollutant	~~*ppm_v @ 15% O_2*~~	*lb/hr*	*lbs/day*

NO_x	~~*52*~~	*2.62*	*62.88*
VOC	~~*50*~~	*0.87*	*20.88*
CO	~~*433*~~	*13.12*	*314.88*

The District proposes to remove Condition 4, which lists the combined emissions limits from the facility's engine generator sets, to replace it with individual conditions listing the emission limits for NO_x VOC and CO for engine-generator set #1, #2 & #3. The SO_2 emissions limit of 150 pounds per day also affects the new enclosed ground flare. A new condition has been proposed limiting the combined SO_2 emissions from all the engine generators sets and the new flare.

Proposed removal of Condition 4:

~~*4. The combined emissions from the engine generator sets shall not exceed the following limits: [District Rule 207]*~~

~~*Pollutant*~~	~~*lbs/hr*~~	~~*lbs/day*~~
~~*NO_x*~~	~~*12.37*~~	~~*296.8*~~
~~*VOC*~~	~~*6.61*~~	~~*158.6*~~
~~*CO*~~	~~*55.59*~~	~~*1,334.2*~~
~~*SO_2*~~	~~*6.25*~~	~~*150.0*~~

Proposed new Condition to set emissions limits for engine-generator set #1:

- *The emissions from engine-generator set #1 shall not exceed the following ~~concentration~~ emission limits [District Rule 207 & 40 CFR Part 60, Subpart JJJJ]:*

Pollutant	*lbs/hr*	*lbs/day*
NO_x	*2.95*	*70.80*
VOC	*2.95*	*70.80*
CO	*14.76*	*354.24*

Proposed new Condition to set emissions limits for engine-generator set #2:

- *The emissions from engine-generator set #2 shall not exceed the following ~~concentration~~ emission limits [District Rule 207 & 40 CFR Part 60, Subpart JJJJ]:*

Pollutant	*lbs/hr*	*lbs/day*
NO_x	*2.73*	*65.52*
VOC	*0.45*	*10.80*
CO	*10.13*	*243.12*

Proposed new Condition to set emissions limits for engine-generator set #3:

- *The emissions from engine-generator set #3 shall not exceed the following ~~concentration~~ emission limits [District Rule 207 & 40 CFR Part 60, Subpart JJJJ]:*

Pollutant	lbs/hr	lbs/day
NO_x	1.83	43.92
VOC	0.58	13.92
CO	9.17	220.08

The District is proposing to add a new condition that specifies that the SO_2 emissions shall be based on the daily total landfill gas flow to all landfill gas fired equipment and the latest H_2S analysis of the landfill gas. The condition will specify that the emissions calculations shall be based on a District approved method.

Proposed new Condition:

- *SO_x emissions shall be calculated using a District approved method. The emissions shall be based on daily total fuel flow to all landfill gas fired equipment and the latest monthly H_2S analysis, as required by Condition 34, of the landfill gas. [District Rule 207]*

The District proposes to revise Condition 16 to specify the landfill gas destruction devices (engines and enclosed flare) that are subject to the reduction of NMOC by 98 weight-percent or reduction of the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. In addition, the District will separate the NMOC reduction requirements for the engines and for the flare into two conditions.

Proposed revised Condition 16:

16. No later than 30 months after the first report required by Condition ~~43~~ 53 in which the NMOC emission rate equals or exceeds 50 megagrams per year, the ~~landfill gas destruction device(s)~~ engine-generator sets #1, #2, #3, and #4 shall either reduce non-methane organic compounds (NMOC) by 98 weight-percent or reduce the NMOC outlet concentration to less than 20 ppmv, dry basis as hexane at 3% oxygen. [District Rule 437 and 40 CFR 60, Subpart WWW ~~Adopted 10/16/96~~]

Proposed new Condition:

- *No later than 30 months after the first report required by Condition 53 in which the NMOC emission rate equals or exceeds 50 megagrams per year, the enclosed ground flare shall reduce NMOC by 98 weight percent, or reduce the NMOC outlet concentration to less than 20 ppmv, dry basis as hexane at 3% oxygen. [District Rule 437 and 40 CFR 60, Subpart WWW]*

The District proposes to revise Condition 23, which lists the requirements of 40 CFR 63 Subpart ZZZZ for reciprocating internal combustion engines, to note that the requirements apply only to engine generator set #1. In addition, the District is proposing to clarify that if the facility needs to change the oil as required in Condition 23(ii), the facility has two (2) *"working"* days to do the oil change. Proposed revised condition as follows:

Proposed revised Condition 23:

23. The Monterey Regional Waste Management District shall operate and maintain ~~the~~ landfill gas ~~engines~~ engine-generator set #1 in accordance with manufacturer specifications and procedures,

and shall implement the following engine management practice standards [40 CFR Part 63, Subpart ZZZZ]:

[…]

The specified oil change-out frequency above may be extended provided an optional oil analysis program is instituted with prior District approval as follows:

i) The oil analysis program must be performed at the same frequency as the oil changeout timelines.

ii) The oil analysis program must, at a minimum, analyze the Total Acid Number, Viscosity, and Percent Water Content of the present engine oil. Should the Total Acid Number increase no more than 3.0 milligrams of potassium hydroxide per gram from the Total Acid Number for new oil, viscosity change no more than 20 percent from the viscosity for new oil, and water content by volume be no more than 0.5 percent, the present engine oil does not need to be changed. If any of the limits are exceeded, the oil must be changed within two (2) working days of receiving the results of the analysis, or before recommencing operation if the engine is out of service.

iii) Records of the oil analysis results and oil changes shall be retained with the maintenance records as required by this permit.

The District is proposing to add a new condition to add the requirements of 40 CFR 63, Subpart AAAA, Section §60.1960 to develop a written startup, shutdown, and malfunction (SSM) plan. The SSM plan must be installed by July 29, 2018, which is the date the facility must install the collection and control system required by 40 CFR 60.752(b)(2).

Proposed new Condition:

- *The Monterey Regional Waste Management District shall develop and implement a written startup, shutdown and malfunction (SSM) plan according to the provisions of 40 CFR 63.6(e)(3) by the date the landfill is required to install a collection and control system, as required by Condition 21. A copy of the SSM plan shall be maintained on site. Failure to write, implement or maintain a copy of the SSM plan is a deviation from the requirements of 40 CFR 63, Subpart AAAA. [40 CFR 63, Subpart AAAA]*

TESTING REQUIREMENTS AND PROCEDURES

New conditions will be added for the new enclosed ground landfill gas flare. In addition, the District proposes to add new condition for testing the landfill gas H_2S concentration to keep track of the SO_x emissions.

The District is proposing add a new condition requiring the annual performance testing for the new flare. Proposed new condition as follows:

Proposed new Condition:

- *The Monterey Regional Waste Management District shall conduct an annual flare performance test on or prior to December 31 of each year to demonstrate compliance with conditions 1, 2, 3, 4, 5 and 23. The testing shall be conducted in accordance with CARB Method 100 for NO_x, CO and EPA Method 18 for VOCs, or other EPA-approved alternative test methods approved by the District. The written results of the performance test shall be provided to the District within thirty (30) days after testing and laboratory analysis are completed.*

  A complete test protocol shall be submitted to the District no later than thirty (30) days prior to testing, and District notification at least ten (10) days prior to the actual testing shall be provided so that a District observer may be present.

  The annual performance tests shall include, but not be limited to, the determination of the following parameters: [District Rules 207, 218, 437 and 40 CFR 60, Subpart WWW]

  A) Oxides of Nitrogen as NO_2: lbs/MMBtu, ppmv, and lbm/hr.
  B) Carbon Monoxide: lbs/MMBtu, ppmv @ 3% O_2, and lbm/hr.
  C) Methane lbs/MMBtu, ppm and lbs/hr.
  D) Total hydrocarbon destruction efficiency, as determined by EPA Test Method 18 or 25.
  E) Oxides of Sulfur as SO_2: ppmv, lbs/MMBTU, and lbm/hr.

  And the following parameters:

  F) Landfill gas rate vented to flare: SCFM.
  G) Landfill gas heating value: Btu/SCF.
  H) Landfill gas concentration of Total Sulfur as Hydrogen Sulfide: ppmv dry and Grains per 100 SCF.
  I) Flare exhaust stack temperature: degrees Fahrenheit.
  J) Flare exhaust stack gas flow rate: DSCFM.
  K Flare residence time: seconds.

The District is proposing to modify current condition 26 to specify the testing methods that should be used for the annual engine-generator performance tests and to cite the permit conditions that the testing demonstrates compliance.

26. Annual engine-generator performance tests shall be conducted during the month of March, April, or May each year to demonstrate compliance with conditions 5, 6, 7, 8, 9, and 22.~~, in accordance with the Monterey Bay Unified Air Pollution Control District test procedures to determine the concentration and mass emission rates of NO_x, CO, methane, and VOC, and the electrical output during the test.~~ The testing shall be conducted in accordance with CARB Method 100 for NO_x, CO and EPA Method 18 for VOCs, or other EPA-approved alternative test methods approved by the District. A testing protocol shall be submitted to the District for approval at least 30 days prior to the schedule testing. The District must be notified at least ten days prior to the actual testing in order that a District representative may be present.

The performance test shall include, but will not be limited to, the determination of the following

emissions [District Rule 207]:

[…]

The District proposes to add a new condition to add the testing requirements to determine the H_2S concentration of the landfill gas combusted in the flares. The H_2S concentration is required to calculate the SO_x daily emissions. Proposed new condition as follows:

Proposed new condition:

- *The landfill gas hydrogen sulfide (H_2S) concentration shall be analyzed once a month. The measurements shall be performed using a District approved method, and shall be reported to the District, upon request. The monthly H_2S results shall be used in a District approved method to calculate the SO_x facility-wide daily emissions as required in Condition 8. [District Rule 207]*

RECORD KEEPING REQUIREMENTS

The District is not proposing changes to this section of the permit.

REPORTING REQUIREMENTS

The District will update the condition that cite District Rule 437 to add the citation to 40 CFR 60, Subpart WWW.

Proposed revised Condition 45:

45. *The Monterey Regional Waste Management District shall submit an annual report, with the initial report due no later than 30 months after the first report required by Condition ~~43~~ 53 in which the NMOC emission rate equals or exceeds 50 megagrams per year, with the following required information [District Rule 437 and 40 CFR 60 Subpart WWW~~Adopted 10/16/96~~]:*

    A) the value and length of time for exceedances of applicable parameters monitored as required in Condition ~~15~~21; and

    B) a description and the duration of all periods when the gas stream is diverted from the ~~Landfill~~ landfill gas destruction device(s); and

    C) a description and the duration of all periods when the landfill gas destruction device(s) was not operating for any period exceeding 1 hour and the length of time the landfill gas destruction device(s) was not operating; and

    D) all periods when the landfill gas destruction device(s) was not operating in excess of five days; and

E) the location and concentration of each exceedance of Condition ~~15(F)~~21(F) as monitored by Condition ~~31(B)~~41(B); and

F) the date of installation and the location of each well or collection system expansion added pursuant to Condition ~~31(B)(v)~~41(B)(v).

In addition to the above, the initial report shall include:

G) the initial performance test required under Condition ~~32~~42; and

[…]

GENERAL CONDITIONS

The District is proposing to add a new condition to specify the time frame for submittal of the required permit renewal application.

Proposed new Condition:

The renewal application for this permit shall be submitted at least 6 months but no greater than 18 months prior to permit expiration. [District Rule 218]

****

MONTEREY BAY ~~UNIFIED~~ AIR ~~POLLUTION CONTROL~~ RESOURCES DISTRICT
TITLE V OPERATING PERMIT ~~TV59-02~~ TV-0000004

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

ISSUED TO:

Monterey Regional Waste Management District
P.O. Box 1670
Marina, CA 93933-1670

PLANT SITE LOCATION:

14201 Del Monte Blvd.
~~Marina, California~~ Monterey County, California

ISSUED BY:

Richard Stedman, Air Pollution Control Officer — Effective Date

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Nature of Business: Municipal Solid Waste Landfill

SIC Code: 4953 - Refuse Systems

RESPONSIBLE OFFICIAL:

Name: Mr. ~~William Merry~~ Tim Flanagan
Title: General Manager
Engineering & Compliance
Phone: (831) ~~384-5313~~ 264-6915

ALTERNATIVE RESPONSIBLE OFFICIAL:

Name: Mr. ~~Tim Flanagan~~ Guy Petraborg
Title: ~~Assistant General Manager~~Director of

Phone: (831) ~~384-5313~~ 264-6385

FACILITY CONTACT PERSON:

Name: Mr. ~~Rick Shedden~~ Guy Petraborg
Title: ~~Senior Engineer~~Director of Engineering & Compliance
Phone: (831) ~~384-5313~~ 264-6385

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FACILITY DESCRIPTION

The Monterey Regional Waste Management District's Monterey Peninsula Landfill is a Municipal Solid Waste (MSW) Landfill permitted by ~~the California Integrated Waste Management Board~~ CalRecycle to receive a maximum of 3,500 tons per day of MSW. This landfill site has been accepting waste since the site opened in 1966.

The landfill utilizes a landfill gas collection and destruction system. The collected landfill gas is combusted in four landfill gas engine-generator sets producing approximately 5.0 Mw and/or ~~a portable candlestick~~ an enclosed flare with a maximum capacity of 4,000 standard cubic feet per minute (SCFM).

The ~~Marina~~ Monterey Peninsula Landfill is subject to Title V permitting as the facility is subject to District Rule 437 due to the design capacity of the landfill being greater than 2.5 million cubic meters. Rule 437 was adopted on October 16, 1996 and submitted to EPA as part of the California State Plan to control emissions from existing MSW Landfills as required by 40 CFR Part 60, Subpart Cc. District Rule 437 adopted by reference the standards established in the New Source Performance Standards for Municipal Solid Waste Landfills (40 CFR Part 60, Subpart WWW). EPA approved the California State Plan on November 22, 1999, which established the effective date for this facility.

EQUIPMENT DESCRIPTION

MUNICIPAL SOLID WASTE LANDFILL CONSISTING OF:

1. ~~470~~ 461 Acre Landfill Site Of Which 315 Acres Are Permitted For Waste Disposal.

2. Landfill Gas Collection Systems, Vertical Wells, Lateral Collector Pipes, Header Pipe, And Gas Movers To Collect And Route Landfill Gas To The Landfill Gas Destruction Systems.

3. Landfill Gas Destruction Systems:

   A) One Landfill Gas Engine-Generator Set, Nominally Rated At 2,233 Bhp And 1.6 Mw Output. (Facility Identification - Engine-Generator Set #1).

   B) One Landfill Gas Engine-Generator Set, Nominally Rated At 1,986 Bhp And 1.4 Mw Output. (Facility Identification - Engine-Generator Set #4).

   ~~C) Two Landfill Gas Engine-Generator Sets, Each Nominally Rated At 1,400 Bhp And 1 Mw Output. (Facility Identification - Engine-Generator Sets #2 and #3)~~

   C) One Landfill Gas Engine Generator Set, Nominally Rated At 1,468 Bhp And 1 Mw Output.

(Faciloity Identification – Engine Generator Set # 2).

D) One Landfill Gas Engine Generator Set, Nominally Rated At 1,387 Bhp And 1 Mw Output. (Facility Identification – Engine Generator Set # 3).

~~D)~~E) ~~Portable Candlestick Flare, Rated At 1,350 SCFM Gas Capacity.~~ One Enclosed Ground Flare, Rated At 120 MMBtu/hr With A Maximum Landfill Gas Flow Rate Of 4,000 SCFM.

4. Ancillary Equipment:

Gasoline Storage Tank.

Wood Processing Facility.

Emergency Diesel-Powered Engine Generator Set

Temporary Portable Landfill Gas H_2S Emission Control System

FEDERALLY ENFORCEABLE EMISSION LIMITS AND STANDARDS

~~1. The amount of landfill gas vented to the flare shall not exceed 1,350 SCFM. [District Rule 207]~~

~~2. The landfill gas flare shall only be operated during the repair or maintenance of the gas control system, or to address offsite gas migration issues. [District Rule 207]~~

1. The heat input rate to the flare shall not exceed 120.0 MMBtu/hr. [District Rule 207]

2. Emissions from the flare shall not exceed the following limits: [District Rule 207]

Pollutant	Emission Factor (lbs/MMBtu)	Total Emissions (lbs/day)
NOx	0.051	146.88
CO	0.18	518.4
VOC	0.03	86.4

3. The minimum combustion zone temperature limit for the flare shall be equal to the average combustion temperature determined during the most recent complying source test minus 50°F, provided that the limit is not less than 1,400°F. The combustion temperature of the landfill gas flare shall be maintained at or above 1,400°F or the limit determined by the most recent source test (whichever temperature is higher), averaged over all three-hour periods, excluding periods of

startup, shutdown, and malfunction. The process time that it takes to complete a startup or shutdown shall not exceed one (1) hour. [District Rule 207 and 40 CFR 60 Subpart WWW]

4. The minimum residence time in the flare shall be 0.6 seconds. [District Rule 207]

5. Oxides of Sulfur (SO_x) emissions from the entire facility, including engine generator sets #1, #2, #3, #4 and the flare, shall be less than 150 pounds per day. SO_x emissions shall be calculated (based on daily total fuel flow to all landfill gas fired equipment and the latest H_2S analysis of the landfill gas) and recorded on a daily basis to verify compliance with this condition. [District Rule 207]

~~3.~~6. The emissions from engine-generator set #4 shall not exceed the following ~~concentration~~ emission limits [District Rule 207 & 40 CFR Part 60, Subpart JJJJ]:

Pollutant	~~ppm_v @ 15% O_2~~	lbs/hr	lbs/day
NO_x	~~52~~	2.62	62.88
VOC	~~50~~	0.87	20.88
CO	~~433~~	13.12	314.88

7. The emissions from engine-generator set #1 shall not exceed the following ~~concentration~~ emission limits [District Rule 207 & 40 CFR Part 60, Subpart JJJJ]:

Pollutant	lbs/hr	lbs/day
NO_x	2.95	70.80
VOC	2.95	70.80
CO	14.76	354.24

8. The emissions from engine-generator set #2 shall not exceed the following ~~concentration~~ emission limits [District Rule 207 & 40 CFR Part 60, Subpart JJJJ]:

Pollutant	lbs/hr	lbs/day
NO_x	2.73	65.52
VOC	0.45	10.80
CO	10.13	243.12

9. The emissions from engine-generator set #3 shall not exceed the following ~~concentration~~ emission limits [District Rule 207 & 40 CFR Part 60, Subpart JJJJ]:

Pollutant	lbs/hr	lbs/day
NO_x	1.83	43.92
VOC	0.58	13.92

CO	9.17	220.08

~~4. The combined emissions from the engine-generator sets shall not exceed the following limits: [District Rule 207]~~

~~Pollutant~~	~~Lbs/hour~~	~~Lbs/day~~
~~NO_x~~	~~12.37~~	~~296.8~~
~~VOC~~	~~6.61~~	~~158.6~~
~~CO~~	~~55.59~~	~~1,334.2~~
~~SO_2~~	~~6.25~~	~~150.0~~

10. SO_x emissions shall be calculated using a District approved method. The emissions shall be based on daily total fuel flow to all landfill gas fired equipment and the latest monthly H_2S analysis, as required by Condition 36, of the landfill gas. [District Rule 207]

~~5.~~11. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three (3) minutes in any one (1) hour which is as dark or darker than Ringelmann 1, or equivalent 20% opacity. [District Rule 400 Adopted 12/15/04]

~~6.~~12. Particulate matter shall not exceed 0.15 grains per standard dry cubic foot in the exhaust stream of the flare. [District Rule 403 Adopted 2/16/05]

~~7.~~13. Sulfur compounds calculated as sulfur dioxide (SO_2) shall not exceed 0.2 percent by volume in the exhaust stream of the landfill gas destruction device(s). [District Rule 404 Adopted 12/15/04]

~~8.~~14. The landfill gas combusted shall contain no more than 50 grains of sulfur compounds (calculated as hydrogen sulfide) per 100 cubic feet of gas. [District Rule 412 Adopted 8/21/02]

~~9.~~15. The Monterey Regional Waste Management District's gasoline storage tank shall be equipped with a permanent submerged fill pipe. [District Rule 418]

~~10.~~16. The Monterey Regional Waste Management District shall operate a Phase I vapor recovery system during the filling of the storage tank at the gasoline dispensing facility which has been certified by the California Air Resources Board. [District Rule 418]

~~11.~~17. The Monterey Regional Waste Management District shall operate a Phase II vapor recovery system on the gasoline storage tank which has been certified by the California Air Resources Board.

[District Rule 1002]

~~12.~~18. The Monterey Regional Waste Management District shall limit emissions of volatile organic compounds by the use of architectural coatings which comply with the requirements of District Rule 426. [District Rule 426]

~~13.~~19. The Monterey Regional Waste Management District shall limit emissions of volatile organic compounds during solvent cleaning and degreasing operations pursuant to the requirements of District Rule 433. [District Rule 433]

~~14.~~20. No later than 1 year after the first report required by Condition ~~43~~ 53 in which the Non-Methane Organic Compound (NMOC) emission rate equals or exceeds 50 megagrams per year, the Monterey Regional Waste Management District shall submit to the District a collection and control system design plan prepared by a professional engineer. This plan shall meet the design requirements specified in §60.752(b)(2)(ii) [restated in Condition ~~15~~21] and must include the information required by §60.752(b)(2)(i). [District Rule 437 and 40 CFR 60, Subpart WWW ~~Adopted 10/16/96~~]

~~15.~~21. No later than 30 months after the first report required by Condition ~~43~~ 53 in which the NMOC emission rate equals or exceeds 50 megagrams per year, the Monterey Regional Waste Management District shall cause to be operated a landfill gas collection system that effectively captures the gas generated such that [District Rule 437 and 40 CFR 60, Subpart WWW~~Adopted 10/16/96~~]:

A) the system is designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas collection system; and

B) landfill gas is collected from each area, cell or group of cells in which non-asbestos degradable solid waste has been placed for a period of 5 years or more for active areas or 2 years or more for closed areas; and

C) offsite migration of subsurface gas is minimized; and

D) each wellhead is under negative pressure except under the following conditions:

i) a fire or increased well temperature. The Monterey Regional Waste Management District shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in Condition ~~46~~56; or

ii) use of a geomembrane or synthetic cover. Acceptable pressure limits shall

be submitted by the Monterey Regional Waste Management District in their design plan; or

iii) a decommissioned well.

E) the collected landfill gas temperature is less than 55°C at each operating well with a nitrogen level less than or equal to 20 percent or an oxygen level less than or equal to 5 percent; and

F) the surface methane concentration over the landfill shall not exceed 500 ppm above background.

~~16.~~22. No later than 30 months after the first report required by Condition ~~43~~ 53 in which the NMOC emission rate equals or exceeds 50 megagrams per year, the ~~landfill gas destruction device(s)~~ engine-generator sets #1, #2, #3, and #4 shall either reduce non-methane organic compounds (NMOC) by 98 weight-percent or reduce the NMOC outlet concentration to less than 20 ppmv, dry basis as hexane at 3% oxygen. [District Rule 437 and 40 CFR 60 Subpart WWW~~Adopted 10/16/96~~]

23. No later than 30 months after the first report required by Condition 53 in which the NMOC emission rate equals or exceeds 50 megagrams per year, the enclosed ground flare shall reduce NMOC by 98 weight percent, or reduce the NMOC outlet concentration to less than 20 ppmv, dry basis as hexane at 3% oxygen. [District Rule 437 and 40 CFR 60, Subpart WWW]

~~17.~~24. The Monterey Regional Waste Management District shall cause the landfill gas destruction device(s) to be operated at all times that the collected landfill gas is routed to the system. In the event that the gas collection system or the Landfill gas destruction device(s) is inoperable, the gas mover system shall be shut down and all valves in the collection system and the landfill gas destruction device(s) contributing to venting of the gas to the atmosphere shall be closed within 1 hour. [District Rule 437 and 40 CFR 60 Subpart WWW~~Adopted 10/16/96~~]

~~18.~~25. Conditions ~~15~~ 21 and ~~16~~ 22 do not apply to the landfill gas destruction device(s) during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 1 hour. [District Rule 437 and 40 CFR 60 Subpart WWW~~Adopted 10/16/96~~]

~~19.~~26. The Monterey Regional Waste Management District shall cause the landfill gas destruction device(s) to be equipped with exhaust gas temperature monitoring devices equipped with continuous recorders having an accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 °C, whichever is greater. [District Rule 437 and 40 CFR 60 Subpart WWW ~~Adopted 10/16/96~~]

~~20.~~27. The Monterey Regional Waste Management District shall cause the operation of gas flow measuring devices that provide measurements of gas flow to the landfill gas destruction device(s) or to the bypass valves if so equipped. [District Rule 437 and 40 CFR 60 Subpart WWW~~Adopted 10/16/96~~]

~~21.~~28. If the gas collection system is equipped with valves to bypass the landfill gas destruction device(s), these bypass valves must be in a closed position with a car-seal or a lock-and-key type configuration. [District Rule 437 and 40 CFR 60 Subpart WWW~~Adopted 10/16/96~~]

~~22.~~29. The Monterey Regional Waste Management District shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis. [District Rule 437 and 40 CFR 60 Subpart WWW~~Adopted 10/16/96~~]

~~23.~~30. The Monterey Regional Waste Management District shall operate and maintain ~~the~~ landfill gas ~~engines~~ engine-generator set #1 in accordance with manufacturer specifications and procedures, and shall implement the following engine management practice standards [40 CFR Part 63, Subpart ZZZZ]:

a) Change oil and filter every 1,440 hours of operation or annually, whichever comes first;

b) Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and,

c) Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.

The specified oil change-out frequency above may be extended provided an optional oil analysis program is instituted with prior District approval as follows:

i) The oil analysis program must be performed at the same frequency as the oil change-out timelines.

ii) The oil analysis program must, at a minimum, analyze the Total Acid Number, Viscosity, and Percent Water Content of the present engine oil. Should the Total Acid Number increase no more than 3.0 milligrams of potassium hydroxide per gram from the Total Acid Number for new oil, viscosity change no more than 20 percent from the viscosity for new oil, and water content by volume be no more than 0.5 percent, the present engine oil does not need to be changed. If any of the limits are exceeded, the oil must be changed within two

(2) working days of receiving the results of the analysis, or before recommencing operation if the engine is out of service.

iii) Records of the oil analysis results and oil changes shall be retained with the maintenance records as required by this permit.

~~24.~~31. Should the facility, as defined in 40 CFR §68.3 become subject to Part 68, then the Monterey Regional Waste Management District shall submit a risk management plan (RMP) by the date specified in 40 CFR §68.10. Once subject to Part 68, the Monterey Regional Waste Management District shall certify compliance with these requirements as part of the annual compliance certification required by 40 CFR Part 70 and this permit [40 CFR Part 68]

~~25.~~32. The Monterey Regional Waste Management District shall comply with the requirements of 40 CFR Part 82 - Protection of Stratospheric Ozone. [40 CFR Part 82]

33. The Monterey Regional Waste Management District shall develop and implement a written startup, shutdown and malfunction (SSM) plan according to the provisions of 40 CFR 63.6(e)(3) by the date the landfill is required to install a collection and control system, as required by Condition 21. A copy of the SSM plan shall be maintained on site. Failure to write, implement or maintain a copy of the SSM plan is a deviation from the requirements of 40 CFR 63, Subpart AAAA. [40 CFR 63, Subpart AAAA]

TESTING REQUIREMENTS AND PROCEDURES

34. The Monterey Regional Waste Management District shall conduct an annual flare performance test on or prior to December 31 of each year to demonstrate compliance with conditions 1, 2, 3, 4, 5 and 23. The testing shall be conducted in accordance with CARB Method 100 for NO_x, CO and EPA Method 18 for VOCs, or other EPA-approved alternative test methods approved by the District. The written results of the performance test shall be provided to the District within thirty (30) days after testing and laboratory analysis are completed.

A complete test protocol shall be submitted to the District no later than thirty (30) days prior to testing, and District notification at least ten (10) days prior to the actual testing shall be provided so that a District observer may be present.

The annual performance tests shall include, but not be limited to, the determination of the following parameters: [District Rules 207, 218, 437 and 40 CFR 60, Subpart WWW]

a) Oxides of Nitrogen as NO_2: lbs/MMBtu, ppmv, and lbm/hr.
b) Carbon Monoxide: lbs/MMBtu, ppmv @ 3% O_2, and lbm/hr.

c) Methane lbs/MMBtu, ppm and lbs/hr.
d) Total hydrocarbon destruction efficiency, as determined by EPA Test Method 18 or 25.
e) Oxides of Sulfur as SO_2: ppmv, lbs/MMBTU, and lbm/hr.
f) Landfill gas rate vented to flare: SCFM.

And the following parameters:

g) Landfill gas heating value: Btu/SCF.
h) Landfill gas concentration of Total Sulfur as Hydrogen Sulfide: ppmv dry and Grains per 100 SCF.
i) Flare exhaust stack temperature: degrees Fahrenheit.
j) Flare exhaust stack gas flow rate: DSCFM.
k) Flare residence time: seconds.

~~26.~~35. Annual engine-generator performance tests for engine-generator sets #1, #2, #3 & #4 shall be conducted during the month of March, April, or May each year to demonstrate compliance with conditions 5, 6, 7, 8, 9 and 22.~~, in accordance with the Monterey Bay Unified Air Pollution Control District test procedures to determine the concentration and mass emission rates of NO_x, CO, methane, and VOC, and the electrical output during the test.~~ The testing shall be conducted in accordance with CARB Method 100 for NO_x, CO and EPA Method 18 for VOCs, or other EPA-approved alternative test methods approved by the District. A testing protocol shall be submitted to the District for approval at least 30 days prior to the scheduled testing date. The District must be notified at least ten days prior to the actual testing in order that a District representative may be present.

The performance test shall include, but will not be limited to, the determination of the following emissions [District Rule 207]:

a) Oxides of Nitrogen, as NO_2: ppmv at 15% O_2 dry and lb_m/hr.
b) Carbon Monoxide: ppmv at 15% O_2 dry and lb_m/hr.
c) Methane and non-methane hydrocarbons: ppm and lb_m/hr.

and the following process parameters:

d) Landfill gas consumption.
e) Stack flow rate (SDCFM), temperature, % O_2 and % H_2O.
f) Electricity generated, kW.

36. The landfill gas hydrogen sulfide (H_2S) concentration shall be analyzed once a month. The measurements shall be performed using a District approved method, and shall be reported to the District, upon request. The monthly H_2S results shall be used in a District approved method to calculate the SO_x facility-wide daily emissions as required in Condition 10. [District Rule 207]

~~27.~~37. No testing is specified for the generic (Rule 400) opacity requirement from Condition ~~5~~11. The landfill gas destruction device(s) are assumed to be in compliance with the opacity requirement due to the firing of gaseous fuel. If testing is conducted for Condition ~~5~~11, the Monterey Regional Waste Management District should conduct testing in accordance with the methodology contained in EPA Method 9 and the averaging/aggregating period contained in District Rule 400. [District Rule 218 Adopted 3/26/97]

~~28.~~38. No testing is specified for the generic (Rule 403) particulate matter emission standard from Condition ~~6~~12. The landfill gas destruction device(s) are assumed to be in compliance with the particulate matter emission standard due to the firing of gaseous fuel. If testing is conducted for Condition ~~6~~12, the Monterey Regional Waste Management District should conduct testing in accordance with the methodology contained in EPA Method 5. [District Rule 218 Adopted 3/26/97]

~~29.~~39. No testing is specified for the generic (Rule 404) sulfur concentration limit in Condition ~~7~~13. The landfill gas destruction device(s) are assumed to be in compliance with the sulfur concentration limit based upon the calculations contained in the engineering evaluation. If testing is conducted for Condition ~~7~~13, the Monterey Regional Waste Management District should conduct testing in accordance with the methodology contained in EPA Method 20. [District Rule 218 Adopted 3/26/97]

~~30.~~40. Annual testing of the landfill gas from the gas collection system(s) to determine the sulfur content shall be completed. The Monterey Regional Waste Management District shall conduct testing in accordance with ASTM D 1072-80, ASTM D 3031-81, ASTM D 3246-81 or SCAQMD Method 307-91 to verify compliance with Condition ~~8~~14. [District Rule 218 Adopted 3/26/97]

~~31.~~41. No later than 30 months after the first report required by Condition ~~43~~ 53 in which the Non-Methane Organic Compound (NMOC) emission rate equals or exceeds 50 megagrams per year, the Monterey Regional Waste Management District shall cause monitoring or testing to be conducted to verify compliance with Conditions ~~15~~21, ~~21~~ 28 and ~~22~~ 29 as follows [District Rule 437 and 40 CFR 60 Subpart WWW~~Adopted 10/16/96~~]:

On a monthly basis:

A) Monitor the cover integrity, visually inspect the bypass valves to ensure that they are closed, and measure the gage pressure and monitor the temperature and nitrogen or oxygen content at each well head. The nitrogen level shall be determined using EPA Method 3C, or the oxygen level shall be determined using EPA Method 3A except that: 1) the span shall be set so the regulatory limit is between 20 and 50 percent of the span; 2) a data recorder is not required; 3) only two calibration gases are required, a zero and a span, and ambient air may be used as the span; 4) a calibration error check is not required; and 5) the allowable sample bias, zero drift, and calibration drift are ±10 percent.

On a quarterly basis:

B) Monitor the surface concentrations of methane along the entire perimeter of the collection area and along a serpentine pattern within the collection area at 30 meter intervals. This surface monitoring shall be performed in accordance with section 4.3.1 of EPA Method 21, except that the probe shall be placed within 5 to 10 centimeters of the ground. The portable analyzer shall meet the instrument specifications provided in section 3 of EPA Method 21 except that "methane" shall replace all references to VOC and the instrument evaluation procedures in section 4.4 of EPA Method 21 shall be used to meet the performance evaluation requirements of section 3.1.3. The calibration procedures provided in section 4.2 of EPA Method 21 shall be followed immediately before commencing a surface monitoring survey, and the calibration gas shall be methane diluted to a nominal concentration of 500 ppm.

Any reading of 500 ppm or greater above background shall be recorded as a monitored exceedance. The ~~Background~~ background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells. A monitored exceedance is not a violation of the operational requirement contained in Condition ~~14(F)~~21(F) as long as the following specified actions are taken:

i) The location of each monitored exceedance shall be marked and the location recorded.

ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance; and

iii) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in section *v* of this condition shall be taken.

iv) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm above background at the 10-day re-monitoring specified in section *ii* or *iii* of this condition shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 ppm above background, no further monitoring is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in section *iii* or *v* of this condition shall be taken.

v) For any location where monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device hall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance and a corresponding time line for installation may be submitted to the District for approval.

~~32.~~42. No later than 30 months after the first report required by Condition ~~43.~~ 53 in which the NMOC emission rate equals or exceeds 50 megagrams per year, and on an annual basis thereafter, the Monterey Regional Waste Management District shall cause testing to be conducted to verify compliance with Condition ~~16~~22. This testing shall be conducted in accordance with EPA test method 18 or 25. [District Rule 437, 40 CFR 60 Subpart WWW, ~~Adopted 10/16/96~~ and District Rule 218 Adopted 3/26/97]

RECORD KEEPING REQUIREMENTS

~~33.~~43. The Monterey Regional Waste Management District shall maintain records showing the quantity of all gasoline delivered to the gasoline storage tanks. [District Rule 418]

~~34.~~44. The Monterey Regional Waste Management District shall maintain a monthly log of the facility-wide total volume of make-up solvent used, and waste solvent disposed of or recycled, for all cleaning devices using volatile organic compounds for solvent cleaning and degreasing. [District Rule 433]

The record keeping provisions of this condition do not apply to remote reservoir cold cleaners which are serviced by an independent contractor. For such remote cold cleaners, evidence of service shall be maintained.

~~35.~~45. The Monterey Regional Waste Management District shall maintain up-to-date records of the maximum design capacity, the current amount of solid waste in place, the year-by-year waste acceptance rate, and the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from gas collection as provided by §60.759(a)(3)(i) as well as any nonproductive areas excluded from gas collection as provided by §60.759(a)(3)(ii). These records shall be retained on-site or be available within 4 hours if stored off-site. [District Rule 437 and 40 CFR 60 Subpart WWW~~Adopted 10/16/96~~]

~~36.~~46. The Monterey Regional Waste Management District shall maintain readily accessible records for the life of the control equipment, the control device vendor specifications, and the following data as measured during the initial performance test or compliance determination [District Rule 437 and

40 CFR Subpart WWW~~Adopted 10/16/96~~]:

A) The maximum expected gas generation flow rate as calculated in §60.755(a)(1); and

B) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in §60.759(a)(1).

~~37.~~47. The Monterey Regional Waste Management District shall maintain records of all maintenance activities on each landfill gas engine pursuant to Condition ~~23~~30. [40 CFR Part 63, Subpart ZZZZ]

~~38.~~48. The Monterey Regional Waste Management District shall keep for at least 5 years up-to-date, readily accessible continuous records of all data required by Condition ~~31~~41. [District Rule 437 and 40 CFR 60 Subpart WWW~~Adopted 10/16/96~~]

~~39.~~49. As applicable the Monterey Regional Waste Management District shall maintain the following general records of required monitoring information [District Rule 218 Adopted 3/26/97]:

A) the date and time of sampling or measurements;

B) the date(s) analyses were performed;

C) the company or entity that performed the analyses;

D) the analytical techniques or methods used;

E) the results of such analyses;

F) the operating conditions existing at the time of sampling or measurement; and

G) the records of quality assurance for continuous monitoring systems (including, but not limited to quality control activities, audits, and calibration drift checks) and source testing methods.

~~40.~~50. The Monterey Regional Waste Management District shall maintain records on the occurrence and duration of any start-up, shutdown, or malfunction in the operation of the control equipment under this permit. [District Rule 218 Adopted 3/26/97]

~~41.~~51. The Monterey Regional Waste Management District shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring, sample collection, measurement, report, and all original strip-chart recordings for continuous

monitoring instrumentation, and copies of all reports required by the permit. [District Rule 218 Adopted 3/26/97]

REPORTING REQUIREMENTS

~~42.~~52. The Monterey Regional Waste Management District shall report all breakdowns to the Air Pollution Control Officer (APCO) within 1 hour of the occurrence. This one hour period may be extended up to six hours for good cause by the APCO.

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

A) a statement that the condition or failure has been corrected and the date of the correction; and

B) a description of the reasons for the occurrence; and

C) a description of the corrective measures undertaken and/or to be undertaken to avoid such an occurrence in the future; and

D) an estimate of the emissions caused by the condition or failure.

~~43.~~53. The Monterey Regional Waste Management District shall submit an annual emission report to the District as specified in §60.752(b)(1)(ii) until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, or the landfill is closed. [District Rule 437 Adopted 10/16/96]

~~44.~~54. The Monterey Regional Waste Management District shall submit semiannual monitoring reports to the District, in a District approved format, no later than August 15 for the period of January 1 through June 30 and no later than February 15 for the period of July 1 through December 31. [District Rule 218 Adopted 3/26/97]

These monitoring reports shall include at a minimum:

A) the time intervals, date and magnitude of excess emissions, nature and cause of the excess (if known), corrective actions and preventative measures adopted; and

B) the averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard for the pollutant in question; and

C) all information pertaining to any monitoring as required by the permit; and

D) a negative declaration specifying when no excess emissions occurred.

~~45.~~55. The Monterey Regional Waste Management District shall submit an annual report, with the initial report due no later than 30 months after the first report required by Condition ~~43~~ 53 in which the NMOC emission rate equals or exceeds 50 megagrams per year, with the following required information [District Rule 437 and 40 CFR 60 Subpart WWW~~Adopted 10/16/96~~]:

A) the value and length of time for exceedances of applicable parameters monitored as required in Condition ~~15~~21; and

B) a description and the duration of all periods when the gas stream is diverted from the ~~Landfill~~ landfill gas destruction device(s); and

C) a description and the duration of all periods when the landfill gas destruction device(s) was not operating for any period exceeding 1 hour and the length of time the landfill gas destruction device(s) was not operating; and

D) all periods when the landfill gas destruction device(s) was not operating in excess of five days; and

E) the location and concentration of each exceedance of Condition ~~15(F)~~21(F) as monitored by Condition ~~31(B)~~41(B); and

F) the date of installation and the location of each well or collection system expansion added pursuant to Condition ~~31(B)(v)~~41(B)(v).

In addition to the above, the initial report shall include:

G) the initial performance test required under Condition ~~32~~42; and

H) a diagram of the collection systems showing collection systems positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion; and

I) the data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based; and

J) the documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material; and

K) the sum of gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area; and

L) the provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and

M) the provisions for the control of off-site migration.

~~46.~~56. The Monterey Regional Waste Management District shall submit an annual compliance certification report to the District and U.S. EPA, in a District approved format, no later than February 15 for the period of January 1 through December 31 of the preceding year. [District Rule 218 Adopted 3/26/97]

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

A) identification of each term or condition of the permit that is the basis of the certification; and

B) the compliance status; and

C) whether compliance was continuous or intermittent; and

D) the method(s) used for determining the compliance status of the source, currently and over the reporting period.

~~47.~~57. The Monterey Regional Waste Management District shall submit a closure report to the District within 30 days of waste acceptance cessation. If a closure report has been submitted to the District, no additional wastes may be placed into the landfill without filing a notification of modification as described in 40 CFR §60.7(a)(4). [District Rule 437 and 40 CFR 60 Subpart WWW~~Adopted 10/16/96~~]

~~48.~~58. The Monterey Regional Waste Management District shall submit an equipment removal report to the District 30 days prior to removal or cessation of operation of the landfill gas control equipment. The equipment removal report shall contain the following [District Rule 437 and 40 CFR 60 Subpart WWW~~Adopted 10/16/96~~]:

A) A copy of the closure report submitted in accordance with Condition ~~47~~57; and

B) A copy of the initial performance test report demonstrating that the 15 year

minimum control period has expired; and

C) Dated copies of three successive annual NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.

GENERAL CONDITIONS

~~49.~~59. The Monterey Regional Waste Management District shall comply with all conditions of this federal operating permit. Any noncompliance with a permit condition constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [District Rule 218 Adopted 3/26/97]

~~50.~~60. In an enforcement action, the fact that the Monterey Regional Waste Management District would have to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit is not a defense. [District Rule 218 Adopted 3/26/97]

~~51.~~61. This permit may be modified, revoked, reopened and reissued, or terminated for cause as determined by the District. The filing of a request by the Monterey Regional Waste Management District for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 218 Adopted 3/26/97]

~~52.~~62. This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. [District Rule 218 Adopted 3/26/97]

~~53.~~63. The Monterey Regional Waste Management District 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 Monterey Regional Waste Management District shall also furnish to the District copies of records required to be retained by this permit. [District Rule 218 Adopted 3/26/97]

~~54.~~64. For applicable requirements that will become effective during the permit term, the Monterey Regional Waste Management District shall meet such requirements on a timely basis unless a more

detailed schedule is expressly required by the applicable requirement. [District Rule 218 Adopted 3/26/97]

~~55.~~65. Any document submitted to the District pursuant to this permit shall contain certification by the responsible official of truth, accuracy and completeness. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. The Monterey Regional Waste Management District shall promptly, upon discovery, report to the District a material error or omission in these records, reports, plans, or other documents. [District Rule 218 Adopted 3/26/97]

~~56.~~66. The Monterey Regional Waste Management District shall report any violation of any requirement contained in this permit to the District within 96 hours after such occurrence. The violation report shall include the time intervals, date and magnitude of excess emissions; nature and cause of the excess (if known), corrective actions and preventive measures adopted. [District Rule 218 Adopted 3/26/97]

~~57.~~67. Upon any administrative or judicial challenge, all the emission limits, specific and general conditions, monitoring, record keeping, and reporting requirements of this permit, except those being challenged, remain valid and must be complied with. [District Rule 218 Adopted 3/26/97]

~~58.~~68. For this federal operating permit to remain valid through the permit term of five years from the date of issuance, the Monterey Regional Waste Management District shall pay an annual emission fee based upon the requirements of District Rule 308. [District Rule 218 Adopted 3/26/97]

~~59.~~69. The Monterey Regional Waste Management District shall have available at the facility at all times a copy of this federal operating permit. [District Rule 218 Adopted 3/26/97]

~~60.~~70. For protection from enforcement action based upon an emergency, as defined in District Rule 218, the responsible official for the Monterey Regional Waste Management District shall submit to the District relevant evidence which demonstrates [District Rule 218 Adopted 3/26/97]:

A) an emergency occurred; and

B) that the Monterey Regional Waste Management District can identify the cause(s) of the emergency; and

C) that the facility was being properly operated at the time of the emergency; and

D) that all steps were taken to minimize the emissions resulting from the emergency; and

E) within two working days of the emergency event, the Monterey Regional Waste Management District provided the District with a description of the emergency and any mitigating or corrective actions taken.

~~61.~~71. Upon presentation of credentials, the Monterey Regional Waste Management District shall allow the District, the ARB, the EPA, or an authorized representative, to perform the following [District Rule 218 Adopted 3/26/97]:

A) enter upon the premises where the federal operating permit source is located or in which any records are required to be kept under the terms and conditions of this federal operating permit;

B) to have access to and copy any records required to be kept under the terms and conditions of this federal operating permit;

C) to inspect any equipment, operation, or process described or required in this federal operating permit; and,

D) to sample emissions from the source.

72. The renewal application for this permit shall be submitted at least 6 months but no greater than 18 months prior to permit expiration. [District Rule 218]

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