Bay Area Air Quality Management District

939 Ellis Street
San Francisco, CA 94109
(415) 771-6000

Final

MAJOR FACILITY REVIEW PERMIT

Issued To:

Sonoma County Central Landfill
Facility #A2254

Facility Address:
500 Mecham Road
Petaluma, CA 94952

Mailing Address:
2300 County Center Drive, Suite B-100
Santa Rosa, CA 95403

Responsible Official
Phillip M. Demery, Director,
Dept. of Transportation and Public Works
(707) 565-3584

Facility Contact
Trish Pisenti,
Site Manager
(707) 565-2231

Type of Facility: Municipal Solid Waste Landfill and Electrical Generation

BAAQMD Engineering Division Contact:
Robert T. Hull

Primary SIC: 4953
Product: Disposal Services and Electricity

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Signed by Jeff McKay for Jack P. Broadbent — May 20, 2013
Jack P. Broadbent, Executive Officer/Air Pollution Control Officer — Date

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I. STANDARD CONDITIONS

A. Administrative Requirements

The permit holder shall comply with all applicable requirements in the following regulations:

BAAQMD Regulation 1 - General Provisions and Definitions
(as amended by the District Board on5/4/11);

SIP Regulation 1 - General Provisions and Definitions
(as approved by EPA through 6/28/99);

BAAQMD Regulation 2, Rule 1 - Permits, General Requirements
(as amended by the District Board on 3/4/09);

SIP Regulation 2, Rule 1 - Permits, General Requirements
(as approved by EPA through 1/26/99);

BAAQMD Regulation 2, Rule 2 - Permits, New Source Review
(as amended by the District Board on 6/15/05);

SIP Regulation 2, Rule 2 - Permits, New Source Review and Prevention of Significant Deterioration
(as approved by EPA through 1/26/99);

BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking
(as amended by the District Board on 12/21/04);

SIP Regulation 2, Rule 4 - Permits, Emissions Banking
(as approved by EPA through 1/26/99):

BAAQMD Regulation 2, Rule 5 – New Source Review of Toxic Air Contaminants
(as amended by the District Board on 1/6/10)

BAAQMD Regulation 2, Rule 6 – Permits, Major Facility Review
(as amended by the District Board on 4/16/03).

SIP Regulation 2, Rule 6 – Permits, Major Facility Review
(as approved by EPA through 6/23/95)

BAAQMD Regulation 2, Rule 9 –Interchangeable Emission Reduction Credits
(as amended by the District Board on 6/15/05)

B. Conditions to Implement Regulation 2, Rule 6, Major Facility Review

1. This Major Facility Review Permit was issued on May 20, 2013 and expires on May 19, 2018. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than November 19, 2017 and no earlier than May 19, 2017. **If a complete application for renewal has not been submitted in accordance with these deadlines, the facility may not operate after May 19, 2018.** If the permit renewal has not been issued by May 19, 2018 but a complete application for renewal has been submitted in accordance with the above deadlines, the existing permit will continue in force until the District takes final action on the renewal application. (Regulation 2-6-307, 404.2, 407, & 409.6; MOP Volume II, Part 3, §4.2)
2. The permit holder shall comply with all conditions of this permit. The permit consists of this document and all appendices. Any non-compliance with the terms and conditions of this permit will constitute a violation of the law and will be grounds for enforcement action; permit termination, revocation and re-issuance, or modification; or denial of a permit renewal application. (Regulation 2-6-307; MOP Volume II, Part 3, §4.11)

I. Standard Conditions

3. In the event any enforcement action is brought as a result of a violation of any term or condition of this permit, the fact that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with such term or condition shall not be a defense to such enforcement action. (MOP Volume II, Part 3, §4.11)
4. This permit may be modified, revoked, reopened and reissued, or terminated for cause. (Regulation 2-6-307, 409.8, 415; MOP Volume II, Part 3, §4.11)
5. The filing of a request by the facility for a permit modification, revocation and re-issuance, or termination, or of a notification of planned changes or anticipated non-compliance does not stay the applicability of any permit condition. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
6. This permit does not convey any property rights of any sort, nor any exclusive privilege. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
7. The permit holder shall supply within 30 days any information that the District requests in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. (Regulation 1-441, Regulation 2-6-409.4 & 501; MOP Volume II, Part 3, §4.11)
8. Any records required to be maintained pursuant to this permit which the permittee considers to contain proprietary or trade secret information shall be prominently designated as such. Copies of any such proprietary or trade secret information which are provided to the District shall be maintained by the District in a locked confidential file, provided, however, that requests from the public for the review of any such information shall be handled in accordance with the District's procedures set forth in Section 11 of the District Administrative Code. (Regulation 2-6-419; MOP Volume II, Part 3, §4.11)
9. Proprietary or trade secret information provided to EPA will be subject to the requirements of 40 CFR Part 2, Subpart B - Public Information, Confidentiality of Business Information. (40 CFR Part 2)
10. The emissions inventory submitted with the application for this Major Facility Review Permit is an estimate of actual emissions for the time period stated and is included only as one means of determining applicable requirements for emission sources. It does not establish, or constitute a basis for establishing, any new emission limitations. (MOP Volume II, Part 3, §4.11)
11. The responsible official shall certify all documents submitted by the facility pursuant to the major facility review permit. The certification 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 certifications shall be signed by a responsible official for the facility. (Regulation 2-6-409.20,_MOP Volume II, Part 3, §4.11)
12. The permit holder is responsible for compliance, and certification of compliance, with all conditions of the permit, regardless whether it acts through employees, agents, contractors, or subcontractors. (Regulation 2-6-307)

C. Requirement to Pay Fees

The permit holder shall pay annual fees in accordance with District Regulation 3, including Schedule P. (Regulation 2-6-402 & 409.13, Regulation 3; MOP Volume II, Part 3, §4.12)

I. Standard Conditions

D. Inspection and Entry

Access to Facility: The permit holder shall provide reasonable access to the facility and equipment which is subject to this permit to the APCO and/or to his or her designee. (Regulation 1-440, Regulation 2-6-409.3; MOP Volume II, Part 3, §4.14)

E. Records

1. The permit holder must provide any information, records, and reports requested or specified by the APCO. (Regulation 1-441, Regulation 2-6-409.4)
2. Notwithstanding the specific wording in any requirement, all records for federally enforceable requirements shall be maintained for at least five years from the date ofcreation of the record. (Regulation 2-6-501, Regulation 3; MOP Volume II, Part 3, §4.7)

F. Monitoring Reports

Reports of all required monitoring must be submitted to the District at least once every six months, except where an applicable requirement specifies more frequent reporting. Reports shall be for the following periods: August 1st through January 31st and February 1st through July 31st and are due on the last day of the month after the end of the reporting period. All instances of non-compliance shall be clearly identified in these reports. The reports shall be certified by the responsible official as true, accurate, and complete. In addition, all instances of non-compliance with the permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions. The reports shall be sent to the following address:

Director of Compliance and Enforcement
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109
Attn: Title V Reports

(Regulation 2-6-502, Regulation 3; MOP Volume II, Part 3, §4.7)

G. Compliance Certification

Compliance certifications shall be submitted annually by the responsible official of this facility to the Bay Area Air Quality Management District and to the Environmental Protection Agency. The certification period will be February 1st to January 31st. The certification shall be submitted by February 28th of each year. The certification must list each applicable requirement, the compliance status, whether compliance was continuous or intermittent, the method used to determine compliance, and any other specific

I. Standard Conditions

information required by the permit. The permit holder may satisfy this requirement through submittal of District-generated Compliance Certification forms. The certification should be directed to the District's Compliance and Enforcement Division at the address above, and a copy of the certification should be sent to the Environmental Protection Agency at the following address:

Director of the Air Division
USEPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105
Attention: Air-3

(MOP Volume II, Part 3, §4.5 and 4.15)

H. Emergency Provisions

1. The permit holder may seek relief from enforcement action in the event of a breakdown, as defined by Regulation 1-208 of the District's Rules and Regulations, by following the procedures contained in Regulations 1-431 and 1-432. The District will thereafter determine whether breakdown relief will be granted in accordance with Regulation 1-433. (MOP Volume II, Part 3, §4.8)
2. The permit holder may seek relief from enforcement action for a violation of any of the terms and conditions of this permit by applying to the District's Hearing Board for a variance pursuant to Health and Safety Code Section 42350. The Hearing Board will determine after notice and hearing whether variance relief should be granted in accordance with the procedures and standards set forth in Health and Safety Code Section 42350 et seq. (MOP Volume II, Part 3, §4.8)
3. The granting by the District of breakdown relief or the issuance by the Hearing Board of a variance will not provide relief from federal enforcement. (MOP Volume II, Part 3, §4.8)

I. Severability

In the event that any provision of this permit is invalidated by a court or tribunal of competent jurisdiction, or by the Administrator of the EPA, all remaining portions of the permit shall remain in full force and effect. (Regulation 2-6-409.5; MOP Volume II, Part 3, §4.10)

J. Miscellaneous Conditions

The maximum capacity for each source as shown in Table II-A is the maximum allowable capacity. Exceedance of the maximum allowable capacity for any source is a violation of Regulation 2, Rule 1, Section 301. (Regulation 2-1-301)

II. EQUIPMENT LIST

Table II A – Permitted Sources

Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. The capacities in this table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-301.

S-#	Description	Make or Type	Model	Capacity
S-1	Sonoma County Central Landfill: (Active Solid Waste Disposal Site with Active Gas Collection System)	Active Landfill Accepting MSW, Commercial, Industrial, and Construction		Max. Waste Acceptance Rate = 2500 tons/day (except for temporary situations approved by the LEA)
	2 Blowers 2 Blowers	Lampson Gardner Denver	(2) Model 859 (1) Model 4204 and (1) Model 74102	(2) 125 hp, 1,438 scfm (each) (1) 20 hp, 500 scfm and (1) 40 hp, 1,500 scfm
	Landfill Gas Collection System	Horizontal Collectors Vertical Wells		34 collectors 135 wells
S-4	Lean Burn Internal Combustion Engine and Generator Set, Landfill Gas/Natural Gas Fired	Caterpillar	3516 S.I.T.A.	1138 hp, 4210 in^3 displacement, 10.5 MM BTU/hr, 800 kWatts
S-5	Lean Burn Internal Combustion Engine and Generator Set, Landfill Gas/Natural Gas Fired	Caterpillar	3516 S.I.T.A.	1138 hp, 4210 in^3 displacement, 10.5 MM BTU/hr, 800 kWatts
S-6	Lean Burn Internal Combustion Engine and Generator Set, Landfill Gas/Natural Gas Fired	Caterpillar	3516 S.I.T.A.	1138 hp, 4210 in^3 displacement, 10.5 MM BTU/hr, 800 kWatts
S-7	Lean Burn Internal Combustion Engine and Generator Set, Landfill Gas/Natural Gas Fired	Caterpillar	3516 S.I.T.A.	1138 hp, 4210 in^3 displacement, 10.5 MM BTU/hr, 800 kWatts
S-9	Lean Burn Internal Combustion Engine and Generator Set, Landfill Gas/Natural Gas Fired	Caterpillar	3516 S.I.T.A.	1138 hp, 4210 in^3 displacement, 10.5 MM BTU/hr, 800 kWatts
S-10	Lean Burn Internal Combustion Engine and Generator Set, Landfill Gas/Natural Gas Fired	Caterpillar	3516 S.I.T.A.	1138 hp, 4210 in^3 displacement, 10.5 MM BTU/hr, 800 kWatts

II. Equipment Lists

Table II A – Permitted Sources

Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. The capacities in this table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-301.

S-#	Description	Make or Type	Model	Capacity
S-11	Lean Burn Internal Combustion Engine and Generator Set, Landfill Gas/Natural Gas Fired	Caterpillar	3516 S.I.T.A.	1138 hp, 4210 in^3 displacement, 10.5 MM BTU/hr, 800 kWatts
S-12	Lean Burn Internal Combustion Engine and Generator Set, Landfill Gas/Natural Gas Fired	Caterpillar	3516 S.I.T.A.	1138 hp, 4210 in^3 displacement, 10.5 MM BTU/hr, 800 kWatts
S-13	Lean Burn Internal Combustion Engine and Generator Set, Landfill Gas/Natural Gas/Biogas Fired	Caterpillar	3516 S.I.T.A.	1138 hp, 4210 in^3 displacement, 10.5 MM BTU/hr, 800 kWatts
S-14	Lean Burn Internal Combustion Engine and Generator Set, Landfill Gas/Natural Gas/Biogas Fired	Caterpillar	3516 S.I.T.A.	1138 hp, 4210 in^3 displacement, 10.5 MM BTU/hr, 800 kWatts
S-15	Landfill Gas Compression Plant – Pilot Scale	Custom Design	N/A	100 scfm
S-22	Sonoma County Central Landfill – Waste and Cover Material	Active Landfill Accepting MSW, Commercial, Industrial, and Construction		Max. Design Capacity = 32.65 million yd^3 (24.96 million m^3) Max. Acceptance Rate = 2500 tons/day (except for temporary situations approved by the LEA)
S-23	Sonoma County Central Landfill – Excavating, Bulldozing, and Compacting	Active Landfill Accepting MSW, Commercial, Industrial, and Construction		Max. Design Capacity = 32.65 million yd^3 (24.96 million m^3) Max. Acceptance Rate = 2500 tons/day (except for temporary situations approved by the LEA)

II. Equipment Lists

Table II-B
Abatement Device List

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Required Efficiency
A-3	Landfill Gas Flare, John Zinc 83.3 MM BTU/hr	S-1	BAAQMD 8-34-301.3, See Also Table IV-A	Minimum combustion temperature of 1400 degrees F (3-hour average), see also Table VII-A	See Table VII-A
A-8	Water Sprays, custom design	S-1	Condition # 4044, part 2	Ringelmann 0.5	

III. GENERALLY APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP Rules and Regulations and other federal requirements cited below. These requirements apply in a general manner to the facility and/or to sources exempt from the requirement to obtain a District Permit to Operate. The District has determined that these requirements would not be violated under normal, routine operations, and that no additional periodic monitoring or reporting to demonstrate compliance is warranted. In cases where a requirement, in addition to being generally applicable, is also specifically applicable to one or more sources, the requirement and the source are also included in Section IV, Source-Specific Applicable Requirements, of this permit. This section also contains provisions that may apply to temporary sources.

The dates in parentheses in the Title column identify the versions of the regulations being cited and are, as applicable:

1. BAAQMD regulation(s): The date(s) of adoption or most recent amendment of the regulation by the District Board of Directors.
2. Any federal requirement, including a version of a District regulation that has been approved into the SIP: The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date.

The full language of the SIP requirements are available on the EPA Region 9 website.
The address is:
http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions.

NOTE:

There are differences between the current BAAQMD rule and the version of the rule in the SIP. All sources must comply with both versions of the rule until US EPA has reviewed and approved the District's revision of the regulation.

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 1	General Provisions and Definitions (5/4/11)	N
SIP Regulation 1	General Provisions and Definitions (6/28/99)	Y
BAAQMD Regulation 2, Rule 1	General Requirements (3/4/09)	N
BAAQMD 2-1-429	Federal Emissions Statement (12/21/04)	Y
SIP Regulation 2, Rule 1	General Requirements (1/26/99)	Y
SIP 2-1-429	Federal Emissions Statement (4/3/95)	Y

III. Generally Applicable Requirements

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 2, Rule 5	New Source Review of Toxic Air Contaminants (1/6/10)	N
BAAQMD Regulation 4	Air Pollution Episode Plan (3/20/91)	N
SIP Regulation 4	Air Pollution Episode Plan (8/6/90)	Y
BAAQMD Regulation 5	Open Burning (3/6/02)	N
SIP Regulation 5	Open Burning (9/4/98)	Y
BAAQMD Regulation 6, Rule 1	Particulate Matter – General Requirements (12/5/07)	N
SIP Regulation 6	Particulate Matter and Visible Emissions (9/4/98)	Y
BAAQMD Regulation 7	Odorous Substances (3/17/82)	N
BAAQMD Regulation 8, Rule 1	Organic Compounds - General Provisions (6/15/94)	Y
BAAQMD Regulation 8, Rule 2	Organic Compounds – Miscellaneous Operations (7/20/05)	Y
SIP Regulation 8, Rule 2	Organic Compounds – Miscellaneous Operations (3/22/95)	Y
BAAQMD Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (11/21/01)	N
BAAQMD Regulation 8, Rule 4	Organic Compounds – General Solvent and Surface Coating Operations (10/16/02)	Y
BAAQMD Regulation 8, Rule 16	Organic Compounds - Solvent Cleaning Operations (10/16/02)	Y
BAAQMD Regulation 8, Rule 40	Organic Compounds – Aeration of Contaminated Soil and Removal of Underground Storage Tanks (6/15/05)	N
SIP Regulation 8, Rule 40	Organic Compounds - Aeration of Contaminated Soil and Removal of Underground Storage Tanks (4/19/01)	Y
BAAQMD Regulation 8, Rule 47	Organic Compounds – Air Stripping and Soil Vapor Extraction Operations (6/15/05)	N
SIP Regulation 8, Rule 47	Organic Compounds - Air Stripping and Soil Vapor Extraction Operations (4/26/95)	Y
BAAQMD Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (12/20/95)	N
SIP Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (3/22/95)	Y
BAAQMD Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products (7/17/02)	N
SIP Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products (2/26/02)	Y
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)	N
SIP Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (6/8/99)	Y
BAAQMD Regulation 9, Rule 2	Inorganic Gaseous Pollutants - Hydrogen Sulfide (3/17/82)	N
BAAQMD Regulation 11, Rule 1	Hazardous Pollutants - Lead (3/17/82)	N

III. Generally Applicable Requirements

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
SIP Regulation 11, Rule 1	Hazardous Pollutants - Lead (9/2/81)	Y
BAAQMD Regulation 11, Rule 2	Hazardous Pollutants – Asbestos Demolition, Renovation and Manufacturing (10/7/98)	N
BAAQMD Regulation 11, Rule 3	Hazardous Pollutants - Beryllium (3/17/82)	Y
BAAQMD Regulation 11, Rule 14	Hazardous Pollutants - Asbestos Containing Serpentine (7/17/91)	N
BAAQMD Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (7/11/90)	N
SIP Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (9/2/81)	Y
California Health and Safety Code Section 41750 et seq.	Portable Equipment	N
California Code of Regulations Title 17, Section 93105	Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations (7/26/01)	N
California Code of Regulations Title 17, Section 93106	Asbestos Airborne Toxic Control Measure for Asbestos-Containing Serpentine (7/20/00)	N
California Health and Safety Code Section 44300 et seq.	Air Toxics "Hot Spots" Information and Assessment Act of 1987	N
California Health and Safety Code Title 17, Section 93115	Airborne Toxic Control Measure for Stationary Compression Ignition Engines	N
California Health and Safety Code Title 17, Section 93116	Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater	N
California Health and Safety Code Title 17, Sections 95100-95109	Mandatory Greenhouse Gas Emissions Reporting	N
California Health and Safety Code Title 17, Sections 95460-95476	Methane Emissions from Municipal Solid Waste Landfills	N
40 CFR Part 61, Subpart A	National Emission Standards for Hazardous Air Pollutants – General Provisions	Y
40 CFR Part 61, Subpart M	National Emission Standards for Hazardous Air Pollutants – National Emission Standard for Asbestos (6/19/95)	Y
EPA Regulation 40 CFR 82	Protection of Stratospheric Ozone (2/21/95)	
Subpart F, 40 CFR 82.154	Prohibitions	Y
Subpart F, 40 CFR 82.156	Required Practices	Y

III. Generally Applicable Requirements

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
Subpart F, 40 CFR 82.158	Standards for Recycling and Recovery Equipment	Y
Subpart F, 40 CFR 82.161	Technician Certification	Y
Subpart F, 40 CFR 82.162	Certification by Owners of Recovery and Recycling Equipment	Y
Subpart F, 40 CFR 82.166	Reporting and Recordkeeping Requirements	Y

IV. SOURCE-SPECIFIC APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP Rules and Regulations and other federal requirements cited below. The requirements cited in the following tables apply in a specific manner to the indicated source(s).

The dates in parentheses in the Title column identify the versions of the regulations being cited and are, as applicable:

1. BAAQMD regulation(s): The date(s) of adoption or most recent amendment of the regulation by the District Board of Directors.
2. Any federal requirement, including a version of a District regulation that has been approved into the SIP: The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date.

The full text of each permit condition cited is included in Section VI, Permit Conditions, of this permit. The full language of SIP requirements are available on the EPA Region 9 website. The address is: http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions. All other text may be found in the regulations themselves.

Table IV – A
Source-specific Applicable Requirements
S-1 – SONOMA COUNTY CENTRAL LANDFILL
S-15 – LANDFILL GAS COMPRESSION PLANT
S-22: WASTE AND COVER MATERIAL
S-23: MOBILE SURFACE EQUIPMENT
A-3 – LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	**General Provisions and Definitions (5/4/11)**		
1-523	Parametric Monitoring and Recordkeeping Procedures	N	
1-523.1	Parametric monitor periods of inoperation	Y	
1-523.2	Limit on periods of inoperation	Y	
1-523.3	Reports of Violations	N	
1-523.4	Records	Y	
1-523.5	Maintenance and calibration	Y	
SIP Regulation 1	**General Provisions and Definitions (6/28/99)**		
1-523	Parametric Monitoring and Recordkeeping Procedures	Y[1]	
1-523.3	Reports of Violations	Y[1]	

IV. Source-Specific Applicable Requirements

Table IV – A
Source-specific Applicable Requirements
S-1 – SONOMA COUNTY CENTRAL LANDFILL
S-15 – LANDFILL GAS COMPRESSION PLANT
S-22: WASTE AND COVER MATERIAL
S-23: MOBILE SURFACE EQUIPMENT
A-3 – LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6, Rule 1	**Particulate Matter (- General Requirements 12/5/07)**		
6-1-301	Ringelmann No. 1 Limitation	N	
6-1-305	Visible Particles	N	
6-1-310	Particle Weight Limitation (applies to A-2 only)	N	
6-1-401	Appearance of Emissions	N	
SIP Regulation 6	**Particulate Matter and Visible Emissions (12/19/90)**		
6-301	Ringelmann No. 1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particle Weight Limitation (applies to A-2 only)	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Regulation 8, Rule 2	**Organic Compounds – Miscellaneous Operations (7/20/05)**		
8-2-301	Miscellaneous Operations (applies to low VOC soil handling and disposal activities only)	N	
SIP Regulation 8, Rule 2	**Organic Compounds – Miscellaneous Operations (6/15/94)**		
8-2-301	Miscellaneous Operations (applies to low VOC soil handling and disposal activities only)	Y	
BAAQMD Regulation 8, Rule 34	**Organic Compounds – Solid Waste Disposal Sites (6/15/05)**		
8-34-113	Limited Exemption, Inspection and Maintenance	N	
8-34-113.1	Emission Minimization Requirement	N	
8-34-113.2	Shutdown Time Limitation	N	
8-34-113.3	Recordkeeping Requirement	N	
8-34-116	Limited Exemption, Well Raising	N	

IV. Source-Specific Applicable Requirements

Table IV – A
Source-specific Applicable Requirements
S-1 – SONOMA COUNTY CENTRAL LANDFILL
S-15 – LANDFILL GAS COMPRESSION PLANT
S-22: WASTE AND COVER MATERIAL
S-23: MOBILE SURFACE EQUIPMENT
A-3 – LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-34-116.1	New Fill	N	
8-34-116.2	Limits on Number of Wells Shutdown	N	
8-34-116.3	Shutdown Duration Limit	N	
8-34-116.4	Capping Well Extensions	N	
8-34-116.5	Well Disconnection Records	N	
8-34-117	Limited Exemption, Gas Collection System Components	N	
8-34-117.1	Necessity of Existing Component Repairs/Adjustments	N	
8-34-117.2	New Components are Described in Collection and Control System Design Plan	N	
8-34-117.3	Meets Section 8-34-118 Requirements	N	
8-34-117.4	Limits on Number of Wells Shutdown	N	
8-34-117.5	Shutdown Duration Limit	N	
8-34-117.6	Well Disconnection Records	N	
8-34-118	Limited Exemption, Construction Activities	N	
8-34-118.1	Construction Plan	N	
8-34-118.2	Activity is Required to Maintain Compliance with this Rule	N	
8-34-118.3	Required or Approved by Other Enforcement Agencies	N	
8-34-118.4	Emission Minimization Requirement	N	
8-34-118.5	Excavated Refuse Requirements	N	
8-34-118.6	Covering Requirements for Exposed Refuse	N	
8-34-118.7	Installation Time Limit	N	
8-34-118.8	Capping Required for New Components	N	
8-34-118.9	Construction Activity Records	N	
8-34-301	Landfill Gas Collection and Emission Control System Requirements	N	
8-34-301.1	Continuous Operation	N	
8-34-301.2	Collection and Control Systems Leak Limitations	N	
8-34-301.3	Limits for Enclosed Flares	N	
8-34-303	Landfill Surface Requirements	N	
8-34-304	Gas Collection System Installation Requirements	N	
8-34-304.1	Based on Waste Age For Inactive or Closed Areas	N	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-34-304.2	Based on Waste Age For Active Areas	N	
8-34-304.3	Based on Amount of Decomposable Waste Accepted	N	
8-34-304.4	Based on NMOC Emission Rate	N	
8-34-305	Wellhead Requirements	N	
8-34-305.1	Operate Under Vacuum	N	
8-34-305.2	Temperature < 55 °C	N	
8-34-305.3	Nitrogen < 20% or	N	
8-34-305.4	Oxygen < 5%	N	
8-34-405	Design Capacity Reports	N	
8-34-406	Initial NMOC Emission Rate Reports	N	
8-34-407	Periodic NMOC Emission Rate Reports	N	
8-34-408	Collection and Control System Design Plans	N	
8-34-408.1	Sites With NMOC Emission Rate > 50 Mg/year	N	
8-34-408.2	Sites With Existing Collection and Control Systems	N	
8-34-411	Annual Report	N	
8-34-412	Compliance Demonstration Tests	N	
8-34-413	Performance Test Report	N	
8-34-414	Repair Schedule for Wellhead Excesses	N	
8-34-414.1	Records of Excesses	N	
8-34-414.2	Corrective Action	N	
8-34-414.3	Collection System Expansion	N	
8-34-414.4	Operational Due Date for Expansion	N	
8-34-415	Repair Schedule for Surface Leak Excesses	N	
8-34-415.1	Records of Excesses	N	
8-34-415.2	Corrective Action	N	
8-34-415.3	Re-monitor Excess Location Within 10 Days	N	
8-34-415.4	Re-monitor Excess Location Within 1 Month	N	
8-34-415.5	If No More Excesses, No Further Re-Monitoring	N	
8-34-415.6	Additional Corrective Action	N	
8-34-415.7	Re-monitor Second Excess Within 10 days	N	

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8-34-415.8	Re-monitor Second Excess Within 1 Month	N	
8-34-415.9	If No More Excesses, No Further Re-monitoring	N	
8-34-415.10	Collection System Expansion for Third Excess in a Quarter	N	
8-34-415.11	Operational Due Date for Expansion	N	
8-34-416	Cover Repairs	N	
8-34-501	Operating Records	N	
8-34-501.1	Collection System Downtime	N	
8-34-501.2	Emission Control System Downtime	N	
8-34-501.3	Continuous Temperature Records for Enclosed Combustors	N	
8-34-501.4	Testing	N	
8-34-501.6	Leak Discovery and Repair Records	N	
8-34-501.7	Waste Acceptance Records	N	
8-34-501.8	Non-decomposable Waste Records	N	
8-34-501.9	Wellhead Excesses and Repair Records	N	
8-34-501.10	Gas Flow Rate Records for All Emission Control Systems	N	
8-34-501.12	Records Retention for 5 Years	N	
8-34-503	Landfill Gas Collection and Emission Control System Leak Testing	N	
8-34-504	Portable Hydrocarbon Detector	N	
8-34-505	Well Head Monitoring	N	
8-34-506	Landfill Surface Monitoring	N	
8-34-507	Continuous Temperature Monitor and Recorder	N	
8-34-508	Gas Flow Meter	N	
8-34-510	Cover Integrity Monitoring	N	
SIP Regulation 8, Rule 34	**Organic Compounds – Solid Waste Disposal Sites (10/6/99)**		
8-34-113	Limited Exemption, Inspection and Maintenance	Y	
8-34-113.1	Emission Minimization Requirement	Y	
8-34-113.2	Shutdown Time Limitation	Y	
8-34-113.3	Recordkeeping Requirement	Y	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-34-116	Limited Exemption, Well Raising	Y	
8-34-116.1	New Fill	Y	
8-34-116.2	Limits on Number of Wells Shutdown	Y	
8-34-116.3	Shutdown Duration Limit	Y	
8-34-116.4	Capping Well Extensions	Y	
8-34-116.5	Well Disconnection Records	Y	
8-34-117	Limited Exemption, Gas Collection System Components	Y	
8-34-117.1	Necessity of Existing Component Repairs/Adjustments	Y	
8-34-117.2	New Components are Described in Collection and Control System Design Plan	Y	
8-34-117.3	Meets Section 8-34-118 Requirements	Y	
8-34-117.4	Limits on Number of Wells Shutdown	Y	
8-34-117.5	Shutdown Duration Limit	Y	
8-34-117.6	Well Disconnection Records	Y	
8-34-118	Limited Exemption, Construction Activities	Y	
8-34-118.1	Construction Plan	Y	
8-34-118.2	Activity is Required to Maintain Compliance with this Rule	Y	
8-34-118.3	Required or Approved by Other Enforcement Agencies	Y	
8-34-118.4	Emission Minimization Requirement	Y	
8-34-118.5	Excavated Refuse Requirements	Y	
8-34-118.6	Covering Requirements for Exposed Refuse	Y	
8-34-118.7	Installation Time Limit	Y	
8-34-118.8	Capping Required for New Components	Y	
8-34-118.9	Construction Activity Records	Y	
8-34-301	Landfill Gas Collection and Emission Control System Requirements	Y	
8-34-301.1	Continuous Operation	Y	
8-34-301.2	Collection and Control Systems Leak Limitations	Y	
8-34-301.3	Limits for Enclosed Flares	Y	
8-34-303	Landfill Surface Requirements	Y	
8-34-304	Gas Collection System Installation Requirements	Y	

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8-34-304.1	Based on Waste Age For Inactive or Closed Areas	Y	
8-34-304.2	Based on Waste Age For Active Areas	Y	
8-34-304.3	Based on Amount of Decomposable Waste Accepted	Y	
8-34-304.4	Based on NMOC Emission Rate	Y	
8-34-305	Wellhead Requirements	Y	
8-34-305.1	Operate Under Vacuum	Y	
8-34-305.2	Temperature < 55 °C	Y	
8-34-305.3	Nitrogen < 20% or	Y	
8-34-305.4	Oxygen < 5%	Y	
8-34-405	Design Capacity Reports	Y	
8-34-406	Initial NMOC Emission Rate Reports	Y	
8-34-407	Periodic NMOC Emission Rate Reports	Y	
8-34-408	Collection and Control System Design Plans	Y	
8-34-408.1	Sites With NMOC Emission Rate > 50 Mg/year	Y	
8-34-408.2	Sites With Existing Collection and Control Systems	Y	
8-34-411	Annual Report	Y	
8-34-412	Compliance Demonstration Tests	Y	
8-34-413	Performance Test Report	Y	
8-34-414	Repair Schedule for Wellhead Excesses	Y	
8-34-414.1	Records of Excesses	Y	
8-34-414.2	Corrective Action	Y	
8-34-414.3	Collection System Expansion	Y	
8-34-414.4	Operational Due Date for Expansion	Y	
8-34-415	Repair Schedule for Surface Leak Excesses	Y	
8-34-415.1	Records of Excesses	Y	
8-34-415.2	Corrective Action	Y	
8-34-415.3	Re-monitor Excess Location Within 10 Days	Y	
8-34-415.4	Re-monitor Excess Location Within 1 Month	Y	
8-34-415.5	If No More Excesses, No Further Re-Monitoring	Y	
8-34-415.6	Additional Corrective Action	Y	

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8-34-415.7	Re-monitor Second Excess Within 10 days	Y	
8-34-415.8	Re-monitor Second Excess Within 1 Month	Y	
8-34-415.9	If No More Excesses, No Further Re-monitoring	Y	
8-34-415.10	Collection System Expansion for Third Excess in a Quarter	Y	
8-34-415.11	Operational Due Date for Expansion	Y	
8-34-416	Cover Repairs	Y	
8-34-501	Operating Records	Y	
8-34-501.1	Collection System Downtime	Y	
8-34-501.2	Emission Control System Downtime	Y	
8-34-501.3	Continuous Temperature Records for Enclosed Combustors	Y	
8-34-501.4	Testing	Y	
8-34-501.6	Leak Discovery and Repair Records	Y	
8-34-501.7	Waste Acceptance Records	Y	
8-34-501.8	Non-decomposable Waste Records	Y	
8-34-501.9	Wellhead Excesses and Repair Records	Y	
8-34-501.10	Gas Flow Rate Records for All Emission Control Systems	Y	
8-34-501.12	Records Retention for 5 Years	Y	
8-34-503	Landfill Gas Collection and Emission Control System Leak Testing	Y	
8-34-504	Portable Hydrocarbon Detector	Y	
8-34-505	Well Head Monitoring	Y	
8-34-506	Landfill Surface Monitoring	Y	
8-34-507	Continuous Temperature Monitor and Recorder	Y	
8-34-508	Gas Flow Meter	Y	
8-34-510	Cover Integrity Monitoring	Y	
BAAQMD Regulation 8, Rule 40	**Organic Compounds – Aeration of Contaminated Soil and Removal of Underground Storage Tanks (12/15/99)**		
8-40-110	Exemption, Storage Pile	Y	
8-40-112	Exemption, Sampling	Y	
8-40-113	Exemption, Non-Volatile Hydrocarbons	Y	

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8-40-116	Exemption, Small Volume	Y	
8-40-116.1	Volume does not exceed 1 cubic yard	Y	
8-40-116.2	Volume does not exceed 8 cubic yards, organic content does not exceed 500 ppmw, may be used only once per quarter	Y	
8-40-117	Exemption, Accidental Spills	Y	
8-40-118	Exemption, Aeration Projects of Limited Impact	Y	
8-40-301	Uncontrolled Contaminated Soil Aeration	Y	
8-40-304	Active Storage Piles	Y	
8-40-305	Inactive Storage Piles	Y	
BAAQMD Regulation 9, Rule 1	**Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)**		
9-1-301	Limitations on Ground Level Concentrations (applies to A-3 only)	Y	
9-1-302	General Emission Limitations (applies to A-3 only)	Y	
BAAQMD Regulation 9, Rule 2	**Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/99)**		
9-2-301	Limitations on Hydrogen Sulfide	N	
40 CFR Part 60, Subpart A	**Standards of Performance for New Stationary Sources – General Provisions (5/4/98)**		
60.4(b)	Requires Submission of Requests, Reports, Applications, and Other Correspondence to the Administrator	Y	
60.7	Notification and Record Keeping	Y	
60.8	Performance Tests	Y	
60.11	Compliance with Standards and Maintenance Requirements	Y	
60.11(a)	Compliance determined by performance tests	Y	
60.11(d)	Control devices operated using good air pollution control practice	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.13(a)	Applies to all continuous monitoring systems	Y	

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60.13(b)	Monitors shall be installed and operational before performing Performance Tests	Y	
60.13(e)	Continuous monitors shall operate continuously	Y	
60.13(f)	Monitors shall be installed in proper locations	Y	
60.13(g)	Requires multiple monitors for multiple stacks	Y	
60.14	Modification	Y	
60.15	Reconstruction	Y	
60.19	General Notification and Reporting Requirements	Y	
40 CFR Part 60, Subpart WWW	**Standards of Performance for New Stationary Sources – Standards of Performance for Municipal Solid Waste Landfills (2/24/99)**		
60.752	Standards for Air Emissions from Municipal Solid Waste Landfills	Y	
60.752(b)	Requirements for MSW Landfills with Design Capacity equal to or greater than 2.5 million Mg **and** 2.5 million m^3 (Large Designated Facilities)	Y	
60.752(b)(1)	Requirements for Large Designated Facilities with Calculated NMOC Emissions of less than 50 Mg/Year	Y	
60.752 (b)(1)(i)	Submit Annual Emission Report	Y	
60.752 (b)(1)(ii)	Recalculate NMOC Emissions Annually until NMOC Emissions > 50 Mg/year or Landfill is Closed	Y	
60.752 (b)(1)(ii)(A)	If NMOC > 50 Mg/year, comply with 60.752(b)(2)	Y	
60.752 (b)(1)(ii)(B)	If landfill is permanently closed, submit closure notice to comply with 60.757(d)	Y	
60.752(b)(2)	Comply with all requirements in sections (b)(2)(i through iv)	Y	
60.752 (b)(2)(i)	Submit a Collection and Control System Design Plan	Y	
60.752 (b)(2)(i)(A)	The collection and control system in the Design Plan shall comply with 60.752(b)(2)(ii)	Y	

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60.752 (b)(2)(i)(B)	Design Plan shall include all proposed alternatives to 60.753 through 60.758	Y	
60.752 (b)(2)(i)(C)	Design Plan shall conform to 60.759 (active collection system) or demonstrate sufficiency of proposed alternatives	Y	
60.752 (b)(2)(ii)	Install a collection and control system	Y	
60.752 (b)(2)(iii)	Route collected gases to a control system.	Y	
60.752 (b)(2)(iii)(B)	NMOC Control Requirement for Enclosed Combustion Devices	Y	
60.752 (b)(2)(iv)	Operate in accordance with 60.753, 60.755, and 60.756	Y	
60.753	Operational Standards for Collection and Control Systems	Y	
60.753(a)	Operate a Collection System in each area or cell in which:	Y	
60.753(a)(1)	Active Cell – solid waste in place for 5 years or more	Y	
60.753(a)(2)	Closed/Final Grade – solid waste in place for 2 years or more	Y	
60.753(b)	Operate each wellhead under negative pressure unless:	Y	
60.753(b)(1)	Fire or increased well temperature or to prevent fire	Y	
60.753(b)(2)	Use of geomembrane or synthetic cover (subject to alternative Pressure limits)	Y	
60.753(b)(3)	Decommissioned well after approval received for shut-down	Y	
60.753(c)	Operate each wellhead at < 55 °C, and either < 20% N_2 or < than 5% O_2 (or other approved alternative levels)	Y	
60.753(c)(1)	N_2 determined by Method 3C	Y	
60.753(c)(2)	O_2 determined by 3A and as described in (2)(i-v)	Y	
60.753(d)	Surface Leak Limit is less than 500 ppm methane above Background at landfill surface. This section also describes some Surface monitoring procedures.	Y	

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60.753(e)	Vent all collected gases to a control system complying with 60.752(b)(2)(iii). If collection or control system inoperable, shut down gas mover and close all vents within 1 hour	Y	
60.753(f)	Operate the control system at all times when collected gas is Routed to the control system	Y	
60.753(g)	If monitoring demonstrates that 60.753(b), (c), or (d) are not Being met, corrective action must be taken	Y	
60.754	Test Methods and Procedures	Y	
60.754(a)	NMOC Calculation Procedures for NMOC Emission Rate Reports and Comparison to 50 Mg/Year Standard	Y	
60.654(a)(1)	Calculate NMOC Emission Rate using either or both of the equations in 60.754(a)(1)(i-ii) with the listed default values	Y	
60.754 (a)(1)(i)	Equation for known year-to-year waste acceptance rate	Y	
60.754 (a)(1)(ii)	Equation for unknown year-to-year waste acceptance rate	Y	
60.754(a)(2)	Tier 1 - compare calculated NMOC emission rate to 50 Mg/year	Y	
60.754 (a)(2)(i)	If NMOC Emission Rate < 50 Mg/Year, submit NMOC emission rate report and recalculate NMOC emissions annually	Y	
60.754 (a)(2)(ii)	If NMOC Emission Rate $\geq$ 50 Mg/year, comply with 60.752(b)(2) or determine a site specific NMOC concentration and follow 60.754(a)(3).	Y	
60.754(a)(3)	Tier 2 – determine site specific NMOC Concentration using Methods 18 or 25C	Y	
60.754 (a)(3)(i)	Recalculate NMOC Emission Rate using site specific NMOC concentration data	Y	
60.754 (a)(3)(ii)	If NMOC Emission Rate $\geq$ 50 Mg/year, comply with 60.752(b)(2) or determine a site specific methane generation rate constant and follow 60.754(a)(4).	Y	

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60.754 (a)(3)(iii)	If NMOC Emission Rate < 50 Mg/Year, submit NMOC Emission rate report, recalculate NMOC emissions annually, retest for NMOC Concentration every 5 years.	Y	
60.754(a)(4)	Tier 3 – determine site specific methane generation rate Constant using Method 2E and recalculate NMOC Emission Rate using site specific NMOC Concentration and site specific Methane Generation Rate Constant	Y	
60.754 (a)(4)(i)	If NMOC Emission Rate ≥ 50 Mg/year, comply with 60.752(b)(2).	Y	
60.754 (a)(4)(ii)	If NMOC Emission Rate < 50 Mg/Year, submit NMOC emission rate report, recalculate NMOC emissions annually, retest for NMOC Concentration every 5 years.	Y	
60.754(a)(5)	Allows use of alternative calculation methods if approved by EPA	Y	
60.754(c)	For PSD, NMOC emissions shall be calculated using AP-42	Y	
60.754(d)	Test Methods for Performance Test (Method 18 or 25C)	Y	
60.755	Compliance Provisions	Y	
60.755(a)	For Gas Collection Systems	Y	
60.755(a)(1)	Calculation Procedures for Maximum Expected Gas Generation Flow Rate	Y	
60.755 (a)(1)(i)	Equation for unknown year-to-year waste acceptance rate	Y	
60.755 (a)(1)(ii)	Equation for known year-to-year waste acceptance rate	Y	
60.755 (a)(1)(iii)	For closed or inactive and full sites with gas collection systems, actual flow rates may be used	Y	
60.755(a)(2)	Vertical wells and horizontal collectors shall be of sufficient density to meet all performance specifications	Y	
60.755(a)(3)	Measure wellhead pressure monthly. If pressure is positive, take corrective action (final corrective action = expand system within 120 days of initial positive pressure reading)	Y	

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60.755(a)(4)	Expansion not required during first 180 days after startup.	Y	
60.755(a)(5)	Monitor wellheads monthly for temperature and either nitrogen or oxygen. If readings exceed limits, take corrective action up to expanding system within 120 days of first excess.	Y	
60.755(b)	Wells shall be placed in cells as described in design plan And no later than 60 days after:	Y	
60.755(b)(1)	Five years after initial waste placement in cell, for active cells	Y	
60.755(b)(2)	Two years after initial waste placement in cell, for closed/final grade cells.	Y	
60.755(c)	Procedures for complying with surface methane standard	Y	
60.755(c)(1)	Quarterly monitoring of surface and perimeter	Y	
60.755(c)(2)	Procedure for determining background concentration	Y	
60.755(c)(3)	Method 21 except probe inlet placed 5-10 cm above ground	Y	
60.755(c)(4)	Excess is any reading of 500 ppmv or more. Take corrective action indicated below (i-v).	Y	
60.755 (c)(4)(i)	Mark and record location of excess	Y	
60.755 (c)(4)(ii)	Repair cover or adjust vacuum. Re-monitor within 10 calendar days.	Y	
60.755 (c)(4)(iii)	If still exceeding 500 ppmv, take additional corrective action. Re-monitor within 10 calendar days of 2nd excess.	Y	
60.755 (c)(4)(iv)	Re-monitor within 1 month of initial excess.	Y	
60.755 (c)(4)(v)	For any location with 3 monitored excesses in a quarter, additional collectors (or other approved collection system repairs) shall be operational within 120 days of 1st excess.	Y	
60.755(c)(5)	Monitor cover integrity monthly and repair as needed.	Y	
60.755(d)	Instrumentation and procedures for complying with 60.755(c).	Y	
60.755(d)(1)	Portable analyzer meeting Method 21	Y	
60.755(d)(2)	Calibrated with methane diluted to 500 ppmv in air	Y	

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60.755(d)(3)	Use Method 21, Section 4.4 instrument evaluation procedures	Y	
60.755(d)(4)	Calibrate per Method 21, Section 4.2 immediately before monitoring.	Y	
60.755(e)	Provisions apply at all times except during startup, shutdown, or Malfunction, provided the duration of these shall not exceed 5 Days for collection systems or 1 hour for control systems.	Y	
60.756	Monitoring of Operations	Y	
60.756(a)	For active collection systems, install wellhead sampling port	Y	
60.756(a)(1)	Measure gauge pressure in wellhead on a monthly basis	Y	
60.756(a)(2)	Measure nitrogen or oxygen concentration in wellhead gas on a monthly basis.	Y	
60.756(a)(3)	Measure temperature of wellhead gas on a monthly basis.	Y	
60.756(b)	Enclosed combustors shall comply with (b)(1) and (b)(2)	Y	
60.756(b)(1)	Temperature monitor and continuous recorder (not required for boilers and process heaters with capacity > 44 MW)	Y	
60.756(b)(2)	Device that records flow to or bypass of the control device (i or ii below)	Y	
60.756 (b)(2)(i)	Install, calibrate, and maintain a device that records flow to the control device at least every 15 minutes.	Y	
60.756 (b)(2)(ii)	Secure a bypass valve in closed position with a lock-and-key configuration and inspect seal and lock monthly.	Y	
60.756(e)	Procedures for requesting alternative monitoring parameters	Y	
60.756(f)	Monitor surface on a quarterly basis. Closed landfills with no monitored exceedences in 3 consecutive quarters may reduce monitoring frequency to an annual basis	Y	
60.757	Reporting Requirements	Y	
60.757(a)	Submit an Initial Design Capacity Report	Y	
60.757(a)(1)	Initial Design Capacity Report fulfills 60.7(a)(1) construction date notification requirement.	Y	
60.757(a)(2)	Initial Design Capacity Report Shall Contain:	Y	

IV. Source-Specific Applicable Requirements

Table IV – A
Source-specific Applicable Requirements
S-1 – SONOMA COUNTY CENTRAL LANDFILL
S-15 – LANDFILL GAS COMPRESSION PLANT
S-22: WASTE AND COVER MATERIAL
S-23: MOBILE SURFACE EQUIPMENT
A-3 – LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.757 (a)(2)(i)	Map indicating size and location of site and all areas where waste may be placed.	Y	
60.757 (a)(2)(ii)	Permit or other documentation that indicates the maximum Design capacity.	Y	
60.757(a)(3)	Amended Design Capacity Report required within 90 days of Receiving a permitted increase in design capacity or within 90 Days of an annual density calculation that results in a design Capacity over the thresholds.	Y	
60.757(b)	Submit Initial and Annual NMOC Emission Rate Report	Y	
60.757(b)(3)	Sites with Collection and Control Systems operating in Compliance with this subpart are exempt from periodic NMOC emission rate reporting requirements.	Y	
60.757(c)	Submit a Collection and Control System Design Plan within 1 year of first NMOC emission rate report showing NMOC > 50 MG/year, except as follows	Y	
60.757(f)	Submit Annual Reports containing information required by (f)(1) through (f)(6)	Y	
60.757(f)(1)	Value and length of time for exceedance of parameters Monitored per 60.756(a), (b) or (d)	Y	
60.757(f)(2)	Description and duration of all periods when gas is diverted From the control device by a by-pass line	Y	
60.757(f)(3)	Description and duration of all periods when control device was not operating for more than 1 hour	Y	
60.757(f)(4)	All periods when collection system was not operating for more than 5 days.	Y	
60.757(f)(5)	Location of each surface emission excess and all re-monitoring dates and concentrations.	Y	
60.757(f)(6)	Location and installation dates for any wells or collectors added as a result of corrective action for a monitored excess.	Y	
60.757(g)	Initial Performance Test Report Requirements (g)(1-6)	Y	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.757(g)(1)	Diagram of collection system showing positions of all existing collectors, proposed positions for future collectors, and areas to be excluded from control.	Y	
60.757(g)(2)	Basis for collector positioning to meet sufficient density requirement	Y	
60.757(g)(3)	Documentation supporting percentage of asbestos or non-degradable material claims for areas without a collection system.	Y	
60.757(g)(4)	For areas excluded from collection due to non-productivity, calculations and gas generation rates for each non-productive area and the sum for all nonproductive areas.	Y	
60.757(g)(5)	Provisions for increasing gas mover equipment if current system inadequate to handle maximum projected gas flow rate.	Y	
60.757(g)(6)	Provisions for control of off-site migration	Y	
60.758	Recordkeeping Requirements	Y	
60.758(a)	Design Capacity and Waste Acceptance Records (retain 5 years)	Y	
60.758(b)	Collection and Control Equipment Records (retain for life of Control equipment except 5 years for monitoring data)	Y	
60.758(b)(1)	Collection System Records	Y	
60.758 (b)(1)(i)	Maximum expected gas generation flow rate.	Y	
60.758 (b)(1)(ii)	Density of wells and collectors	Y	
60.758(b)(2)	Control System Records – enclosed combustors other than boilers or process heaters with heat input > 44 MW	Y	
60.758 (b)(2)(i)	Combustion temperature measured every 15 minutes and Averaged over the same time period as the performance test	Y	
60.758 (b)(2)(ii)	Percent NMOC reduction achieved by the control device	Y	
60.758(c)	Records of parameters monitored pursuant to 60.756 and periods of operation when boundaries are exceeded (retain for 5 years).	Y	
60.758(c)(1)	Exceedances subject to record keeping are	Y	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.758 (c)(1)(i)	All 3-hour periods when average combustion temperature was more than 28 C below the average combustion temperature during the most recent complying performance test	Y	
60.758(c)(2)	Records of continuous flow to control device or monthly Inspection records if seal and lock for bypass valves	Y	
60.758(d)	Plot map showing location of all existing and planned collectors With a unique label for each collector (retain for life of collection system)	Y	
60.758(d)(1)	Installation date and location of all newly installed collectors	Y	
60.758(d)(2)	Records of nature, deposition date, amount, and location of asbestos or non-degradable waste excluded from control	Y	
60.758(e)	Records of any exceedance of 60.753, location of exceedance and re-monitoring dates and data (for wellheads and surface). Retain for 5 years.	Y	
60.759	Specifications for Active Collection Systems	Y	
60.759(a)	Active wells and collectors shall be at sufficient density	Y	
60.759(a)(1)	Collection System in refuse shall be certified by PE to achieve Comprehensive control of surface gas emissions	Y	
60.759(a)(2)	Collection Systems (active or passive) outside of refuse shall address migration control	Y	
60.759(a)(3)	All gas producing areas shall be controlled except as Described below (i-iii).	Y	
60.759 (a)(3)(i)	Any segregated area of asbestos or non-degradable Material only may be excluded, if documented adequately per 60.758(d).	Y	

IV. Source-Specific Applicable Requirements

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.759 (a)(3)(ii)	Any non-productive areas may be excluded from control, provided total NMOC emissions from all excluded areas is < 1% of total NMOC emissions from landfill. Document amount, location, and age of waste and all calculations for each excluded area.	Y	
60.759 (a)(3)(iii)	For calculating NMOC emissions, values for k and concentration of NMOC that have been previously approved shall be used or defaults if no values were approved. All non-degradable wastes that are being subtracted from total wastes for NMOC calculations must be documented adequately.	Y	
60.759(b)	Gas Collection System Components	Y	
60.759(b)(1)	Must be constructed of PVC, HDPE, fiberglass, stainless steel, or other approved material and of suitable dimensions to convey projected gas amounts and withstand settling, traffic, etc.	Y	
60.759(b)(2)	Collectors shall not endanger liner, shall manage condensate and leachate, and shall prevent air intrusion and surface leaks.	Y	
60.759(b)(3)	Header connection assemblies shall include positive closing throttle valve, seals and couplings to prevent leaks, at least one sampling port, and shall be constructed of PVC,HDPE, fiberglass, stainless steel, or other approved materials.	Y	
60.759(c)	Gas Mover Equipment shall be sized to handle maximum expected gas generation rate over the intended period of use.	Y	
60.759(c)(1)	For existing systems, flow data shall be used to project maximum flow rate.	Y	
60.759(c)(2)	For new systems, shall be calculated per 60.755(a)(1)	Y	
40 CFR Part 63, Subpart A	**National Emission Standards for Hazardous Air Pollutants: General Provisions (3/16/94)**		
63.4	Prohibited activities and circumvention	Y	

IV. Source-Specific Applicable Requirements

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
63.5(b)	Requirements for existing, newly constructed, and reconstructed sources	Y	
63.6(e)	Operation and maintenance requirements and SSM Plan	Y	
63.6(f)	Compliance with non-opacity emission standards	Y	
63.10(b)(2)(i-v)	Records for startup, shutdown, malfunction, and maintenance	Y	
63.10(d)(5)	Startup, Shutdown, and Malfunction (SSM) Reports	Y	
40 CFR Part 63, Subpart AAAA	**National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills (1/16/03)**		
63.1945	When do I have to comply with this subpart?	Y	
63.1945(b)	Compliance date for existing affected landfills	Y	
63.1955	What requirements must I meet?	Y	
63.1955(a)(2)	Comply with State Plan that implements 40 CFR Part 60, Subpart Cc	Y	
63.1955(b)	Comply with 63.1960-63.1985, if a collection and control system is required by 40 CFR Part 60, Subpart WWW or a State Plan implementing 40 CFR Part 60, Subpart Cc	Y	
63.1955(c)	Comply with all approved alternatives to standards for collection and control systems plus all SSM requirements and 6 month compliance reporting requirements	Y	
63.1960	How is compliance determined?	Y	
63.1965	What is a deviation?	Y	
63.1975	How do I calculate the 3-hour block average used to demonstrate compliance?	Y	
63.1980	What records and reports must I keep and submit?	Y	
63.1980(a)	Comply with all record keeping and reporting requirements in 40 CFR Part 60, Subpart WWW or the State Plan implementing 40 CFR Part 60, Subpart Cc, except that the annual report required by 40 CFR 60.757(f) must be submitted every 6 months	Y	

IV. Source-Specific Applicable Requirements

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
63.1980(b)	Comply with all record keeping and reporting requirements in 40 CFR Part 60, Subpart A and 40 CFR Part 63, Subpart A, including SSM Plans and Reports	Y	
BAAQMD Condition # 4044			
Part 1	Refuse acceptance limits (Cumulative Increase and 2-1-301)	Y	
Part 2	Dust emission limits (BACT and 1-301)	Y	
Part 3	Public nuisance consequences (1-301)	N	
Part 4	Authority to Construct requirement for collection system modifications (2-1-301)	Y	
Part 5	Requirements for Alternative Wellhead Standards	Y	
Part 6	Limits on concentrations of toxic air contaminants in landfill gas (TRMP)	N	
Part 7	Limit on total reduced sulfur content in landfill gas (9-1-302)	Y	
Part 8	Prohibition on venting raw landfill gas to the atmosphere (8-34-301)	Y	
Part 9	Requirement to operate flare when an engine is down (8-34-301)	Y	
Part 10	Combustion Temperature Limit (TRMP)	N	
Part 11	Flare NOx Limit (RACT and Offsets)	Y	
Part 12	Flare CO Limit (RACT and Offsets)	Y	
Part 13	Flare Heat Input Limit (Cumulative Increase and Regulation 2-1-301)	Y	
Part 14	Flare Flow Meter Requirement (8-34-301)	Y	
Part 15	Flare Alarm Requirements (8-34-301.1)	Y	
Part 16	Flare Temperature Monitor and Recorder (8-34-507 and TRMP)	Y	
Part 17	Annual Flare Source Test Requirements (Cumulative Increase, 8-34-301.3, 8-34-412, and 40 CFR 60.752(b)(2)(iii)(B))	Y	
Part 18	Landfill Gas Characterization Test (2-1-403)	N	
Part 19	Recordkeeping Requirements (Cumulative Increase, 6-301, 6-305, 8-34-304, 8-34-501.3, and 8-34-501.8)	Y	
Part 20	Handling Procedures for Soil Containing VOCs (8-40-301, 8-40-304, and 8-40-305	N	
Part 21	Daily Soil VOC Emissions Limit (8-2-301)	Y	

IV. Source-Specific Applicable Requirements

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Condition # 23087	Landfill Gas Compression Plant Operating Requirements		

1 This section has been removed from BAAQMD Regulations because it has been superseded. Nevertheless, the source must comply with this regulation until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

Table IV-B
Source-specific Applicable Requirements
S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, S-14 - Lean Burn Internal Combustion Engines and Generator Sets

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	**General Provisions and Definitions (5/2/01)**		
1-523	Parametric Monitoring and Recordkeeping Procedures	N	
1-523.1	Parametric monitor periods of inoperation	Y	
1-523.2	Limit on periods of inoperation	Y	
1-523.3	Reports of Violations	N	
1-523.4	Records	Y	
1-523.5	Maintenance and calibration	Y	
SIP Regulation 1	**General Provisions and Definitions (6/28/99)**		
1-523	Parametric Monitoring and Recordkeeping Procedures	Y[1]	
1-523.3	Reports of Violations	Y[1]	
BAAQMD Regulation 6, Rule 1	**Particulate Matter - General Requirements (12/5/07)**		

IV. Source-Specific Applicable Requirements

Table IV-B
Source-specific Applicable Requirements
S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, S-14 - Lean Burn Internal Combustion Engines and Generator Sets

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
6-1-301	Ringelmann No. 1 Limitation	Y	
6-1-305	Visible Particles	Y	
6-1-310	Particle Weight Limitation	Y	
6-1-401	Appearance of Emissions	Y	
SIP Regulation 6	**Particulate Matter and Visible Emissions (12/19/90)**		
6-301	Ringelmann No. 1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particle Weight Limitation (applies to A-2 only)	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Regulation 8, Rule 34	**Organic Compounds - Solid Waste Disposal Sites (10/6/99)**		
8-34-113	Limited Exemption, Inspection and Maintenance	Y	
8-34-113.1	Emission Minimization Requirement	Y	
8-34-113.2	Shutdown Time Limitation	Y	
8-34-113.3	Recordkeeping Requirement	Y	
8-34-301	Landfill Gas Collection and Emission Control System Requirements	Y	
8-34-301.1	Continuous Operation	Y	
8-34-301.2	Collection and Control Systems Leak Limitations	Y	
8-34-301.4	Limits for Other Emission Control Systems	Y	
8-34-408	Collection and Control System Design Plans	Y	
8-34-408.2	Sites With Existing Collection and Control Systems	Y	
8-34-410	Equipment Removal Report	Y	
8-34-411	Annual Report	Y	
8-34-412	Compliance Demonstration Tests	Y	
8-34-413	Performance Test Report	Y	
8-34-501	Operating Records	Y	
8-34-501.2	Emission Control System Downtime	Y	
8-34-501.11	Records of Key Emission Control System Operating Parameters	Y	
8-34-501.4	Testing	Y	
8-34-501.6	Leak Discovery and Repair Records	Y	

IV. Source-Specific Applicable Requirements

Table IV-B
Source-specific Applicable Requirements
S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, S-14 - Lean Burn Internal Combustion Engines and Generator Sets

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-34-501.10	Gas Flow Rate Records for All Emission Control Systems	Y	
8-34-501.12	Records Retention for 5 Years	Y	
8-34-503	Landfill Gas Collection and Emission Control System Leak Testing	Y	
8-34-504	Portable Hydrocarbon Detector	Y	
8-34-508	Gas Flow Meter	Y	
8-34-509	Key Emission Control System Operating Parameters	Y	
BAAQMD Regulation 9, Rule 1	**Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)**		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
BAAQMD Regulation 9, Rule 2	**Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/99)**		
9-2-301	Limitations on Hydrogen Sulfide	N	
BAAQMD Regulation 9 Rule 8	**Inorganic Gaseous Pollutants – Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines (1/20/93)**		
9-8-301	Emission Limits - Fossil Derived Fuel Gas	Y	
9-8-301.2	Lean-Burn Engines: NOx Emission Limit	Y	
9-8-301.3	CO Emission Limit	Y	
9-8-302	Emission Limits – Waste Derived Fuel Gas	Y	
9-8-302.1	Lean-Burn Engines: NOx Emission Limit	Y	
9-8-302.3	CO Emission Limit	Y	
BAAQMD Condition # 19933			
Part 1	Abatement requirement for collected landfill gas (8-34-301)	Y	
Part 2	Requirement to flare excess gas (8-34-301)	Y	
Part 3	Limitations on Natural Gas Usage (Cumulative Increase and Offsets)	Y	
Part 4	Landfill Gas Flow Meter Requirement (2-1-403)	Y	
Part 5	NOx emission limit (BACT, Offsets, and Cumulative Increase)	Y	

IV. Source-Specific Applicable Requirements

Table IV-B
Source-specific Applicable Requirements
S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, S-14 - Lean Burn Internal Combustion Engines and Generator Sets

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
Part 6	CO emission limit (BACT)	Y	
Part 7	NMOC control requirement (BACT, Offsets, and Regulation 8-34-301.4)	Y	
Part 8	Annual Source Test Requirement (BACT, Offsets, 8-34-114, 8-34-301.4, 8-34-412, 9-8-302.1, and 9-8-302.3)	Y	
Part 9	Record Keeping Requirements (Cumulative Increase and Offsets)	Y	
Part 10	Heat Input Limits (2-1-301)	Y	
Part 11	Exhaust Gas Oxygen Concentration Monitoring Requirements (Regulations 8-34-301.4, 8-34-501.4, and 8-34-509)	Y	
BAAQMD Condition # 24894	**Special Conditions for S-13 and S-14 When Fired by Biogas**		
Part 1	Biogas fuel requirement (Regulation 2-1-403)	Y	
Part 2	Fuel heat input limit (Cumulative Increase)	Y	
Part 3	Fuel Flow Meter requirement (Regulation 2-1-403)	Y	
Part 4	NOx emission limit (BACT, Offsets, and Cumulative Increase)	Y	
Part 5	CO emission limit (BACT)	Y	
Part 6	NMOC emission limit (Cumulative Increase)	Y	
Part 7	Fuel use monitoring (Cumulative Increase, Offsets, and TRMP)	Y	
Part 8	Annual Source Test Requirement (BACT, Cumulative Increase, Regulations 9-8-302.1, and 9-8-302.3)	Y	
Part 9	Record Keeping Requirements (Cumulative Increase, Regulation 2-6-501)	Y	

1 This section has been removed from BAAQMD Regulations because it has been superseded. Nevertheless, the source must comply with this regulation until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

V. SCHEDULE OF COMPLIANCE

The permit holder shall comply with all applicable requirements cited in this permit. The permit holder shall also comply with applicable requirements that become effective during the term of this permit on a timely basis.

VI. PERMIT CONDITIONS

Any condition that is preceded by an asterisk is not federally enforceable.

Condition # 4044
For S-1 Sonoma County Central Landfill, S-22 Waste and Cover Material, S-23 Mobile Surface Equipment, A-3 Landfill Gas Flare, and A-8 Water Sprays

1. Except for temporary emergency situations approved by the Local Enforcement Agency, the total amount of municipal solid waste received at the Sonoma County Central Landfill (S-1) shall not exceed 2,500 tons per day nor 897,500 tons per year. The total cumulative amount of all wastes and cover materials (excluding final cover material) placed in the landfill shall not exceed both 32.65 million cubic yards and 19.59 million tons.
(basis: Cumulative Increase and 2-1-301)

2. Particulate emissions from any operation of the Landfill (S-1) shall be abated by Water Spray (A-8), if necessary, so that visible dust emissions shall not exceed Ringelmann 0.5 or result in fallout on adjacent property in such quantities as to cause a public nuisance per Regulation 1-301. (basis: BACT and 1-301)

*3. If the plant receives two or more Violation Notices from the District for "Public Nuisance" related to dust emissions in any consecutive 12 month period, the Permit Holder shall submit to the District, within 30 days, an application to modify the Permit to Operate to include the following control measures as applicable or any other measures that the District deems necessary and appropriate. (basis: Regulation 1-301)
   a. The paving of all significant roads associated with landfill operations, or
   b. The use of chemical suppressant to control fugitive dust emissions from roadways associated with this landfill.

4. The Sonoma County Central Landfill includes the landfill gas collection system components listed below. Well and collector locations, depths, and lengths are as described in detail in the current Landfill Collection and Control System Design Plan.

Total Number of Vertical Wells:	135
Total Number of Horizontal Collectors:	34

VI. Permit Conditions

Condition # 4044
For S-1 Sonoma County Central Landfill, S-22 Waste and Cover Material, S-23 Mobile Surface Equipment, A-3 Landfill Gas Flare, and A-8 Water Sprays

The Permit Holder shall apply for and receive an Authority to Construct prior to modifying the landfill gas collection system. Increasing or decreasing the number of wells or collectors, or significantly changing the length of collectors, or the locations of wells or collectors are modifications that are subject to the Authority to Construct requirement. (basis: Regulations 2-1-301, 8-34-301.1, 8-34-304, 8-34-305).

5. Operating Requirements for Landfill Gas Collection Systems and Collection System Components:

   a. The landfill gas collection systems described in part 4 shall be operated continuously. Wells shall not be disconnected or removed, nor isolation valves shut completely off, unless the Permit Holder complies with all applicable requirements of Regulation 8, Rule 34, Sections 113, 116, 117, and 118. (Basis: Regulation 8-34-301.1)
   b. Each landfill gas collection system component listed in Part 4 shall be operated in compliance with the wellhead limits of Regulation 8-34-305, unless an alternative wellhead limit has been approved for that component, as identified in subpart b(i), and the Permit Holder complies with all of the additional requirements for that component, as identified in subparts b(ii-vii). (Basis: Regulations 8-34-303, 8-34-304, 8-34-305, 40 CFR 60.755(a) and 60.759)
      i. The nitrogen and oxygen concentration limits in Regulation 8-34-305.3 and 8-34-305.4 shall not apply to the landfill gas collection wells listed below, provided that the oxygen concentration in each of the following wells does not exceed 15% by volume: V-058, V-061, V-062, and V-117; EC-9.1, EC-15, EC-19, EC-24, EC-25, EC-26, and EC-26.1.
      ii. The Permit Holder shall demonstrate compliance with the alternative wellhead oxygen limit in subpart b(i) by monitoring each wellhead for oxygen on a monthly basis, in accordance with the provisions of Regulations 8-34-505 and 8-34-604.
      iii. All test dates, wellhead oxygen concentration data, any deviations from the subpart b(i) limit, repair actions, repair dates, re-monitoring dates and results, and compliance restoration dates shall be recorded in a District approved log and made available to District staff upon request in accordance with Regulations 8-34-34-501.4, 8-34-501.9, and 8-34-414.

VI. Permit Conditions

Condition # 4044
For S-1 Sonoma County Central Landfill, S-22 Waste and Cover Material, S-23 Mobile Surface Equipment, A-3 Landfill Gas Flare, and A-8 Water Sprays

iv. To demonstrate that the alternative wellhead oxygen limit in subpart b(i) will not cause surface emission leaks, the Permit Holder shall conduct additional surface emission monitoring in the vicinity of each component listed in subpart b(i). For each component in subpart b(i), the Permit Holder shall maintain a map showing the location of the buried collection component and identifying the approximate radius of influence for the component. For each component in subpart b(i), the Permit Holder shall monitor for landfill surface emissions – in accordance with Regulations 8-34-506 and 8-34-607 – at three representative points on the landfill surface that are within the radius of influence of the component and that are not more than 15 meters from the surface location of the component. This additional surface emission monitoring shall be conducted on a monthly basis for a period of at least six consecutive months.

v. If no excesses of the Regulation 8-34-303 surface emission limit are detected in the vicinity of a component for six consecutive months, the Permit Holder may discontinue the additional monthly surface emission monitoring in the vicinity of that component and shall continue with the routine quarterly surface emission monitoring requirements in the vicinity of that component.

vi. If one or more excesses of the Regulation 8-34-303 surface emission limit are detected in the vicinity of a component during a six consecutive month period, the Permit Holder shall follow all applicable requirements for recording and reporting the excess and shall follow the Regulation 8-34-415 repair schedule for landfill surface leak excesses. The additional monthly surface emission monitoring in the vicinity of that component shall continue until either the no surface excess requirements of subpart b(v) have been achieved or the repair and compliance restoration requirements of subpart b(vii) have been satisfied.

VI. Permit Conditions

Condition # 4044
For S-1 Sonoma County Central Landfill, S-22 Waste and Cover Material, S-23 Mobile Surface Equipment, A-3 Landfill Gas Flare, and A-8 Water Sprays

vii. If excesses of the Regulation 8-34-303 surface emission limit are detected in the vicinity of a component for three or more monitoring events during a six consecutive month period, the subpart b(i) alternative wellhead oxygen limit shall be revoked for that component. The Permit Holder shall conduct all necessary repairs to the landfill gas collection well, to any piping associated with the well or the remote wellhead monitoring system, to valves, flanges, or other connectors, and to any test ports or other openings that are necessary to eliminate air intrusion into the well or the monitoring point, to prevent impairment of vacuum application or vacuum adjustment at the collection well, and to restore the collection well and associated monitoring point to proper function. The Permit Holder shall complete all of the above repairs and any necessary landfill surface and shall restore compliance with the Regulation 8-34-303 surface emission limit (in the vicinity of that component) and the Regulation 8-34-305.4 wellhead oxygen concentration limit by the earlier of the following dates: (a) within 120 days of the date that the first excess was discovered if the three excess events are discovered within a single quarterly period pursuant to the re-monitoring requirements of 8-34-415 or (b) within 60 days of detection of the third excess.

*6. If the concentrations (dry basis) of toxic air contaminants in the collected landfill gas exceed any of the limits listed below, the Permit Holder shall submit a permit application for a Change of Permit Conditions within 30 days of receiving the test results.

Benzene	=	2.5 ppmv
Trichloroethylene	=	3.0 ppmv
Perchloroethylene	=	3.0 ppmv
Methylene Chloride	=	20.0 ppmv
Vinyl Chloride	=	2.5 ppmv

(basis: Toxic Risk Management Policy)

7. Total reduced sulfur compounds in the collected landfill gas shall be monitored as a surrogate for monitoring sulfur dioxide in control systems exhaust. The concentration of total reduced sulfur compounds in the collected landfill gas shall not exceed 1300 ppmv (dry). (basis: Regulation 9-1-302)

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Condition # 4044
For S-1 Sonoma County Central Landfill, S-22 Waste and Cover Material, S-23 Mobile Surface Equipment, A-3 Landfill Gas Flare, and A-8 Water Sprays

8. All collected landfill gas shall be vented to properly operating abatement equipment including the Internal Combustion Engines (S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, and S-14) and/or the Landfill Gas Flare (A-3). Under no circumstances shall raw landfill gas be vented to the atmosphere. This limitation does not apply to unavoidable landfill gas emissions that occur during collection system installation, maintenance, or repair that is performed in compliance with Regulation 8, Rule 34, Sections 113, 116, 117, or 118 or to inadvertent component or surface leaks that do not exceed the limits specified in 8-34-301.2 or 8-34-303. (basis: Regulation 8-34-301)

9. The A-3 Landfill Gas Flare shall be operated as necessary to combust excess gas whenever the flow of landfill gas exceeds the capacity of the Internal Combustion Engines in service. (basis: Regulation 8-34-301)

10. The combustion temperature of the A-3 Landfill Gas Flare shall be maintained at a minimum of 1400 degrees Fahrenheit, averaged over any 3-hour period. (basis: 8-34-301, Toxic Risk Management Policy)

11. Emissions of Nitrogen Oxides (NOx) from the Flare A-3 shall not exceed 0.05 pounds per million BTU (calculated as NO_2). (basis: RACT and Offsets)

12. Emissions of Carbon Monoxide (CO) from the Flare A-3 shall not exceed 0.20 pounds per million BTU. (basis: RACT and Offsets).

13. The Heat Input to the A-3 Landfill Gas Flare shall not exceed 547,680 million BTU per year. In order to demonstrate compliance with this part, the Permit Holder shall calculate and record on a monthly basis the total monthly heat input to the flare based on the landfill gas flow rate recorded pursuant to part14, the average methane concentration in the landfill gas based on the most recent source test, and a high heating value for methane of 1013 BTU/scf. The records shall be retained for five years and shall be available to the District staff upon request. (basis: Cumulative Increase, Regulation 2-1-301)

14. A flow meter to measure gas flow into the A-3 Landfill Gas Flare shall be installed and maintained in good working condition. (basis: Regulation 8-34-301)

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Condition # 4044
For S-1 Sonoma County Central Landfill, S-22 Waste and Cover Material, S-23 Mobile Surface Equipment, A-3 Landfill Gas Flare, and A-8 Water Sprays

15. The A-3 Landfill Gas Flare shall be equipped with both local and remote alarm systems, which shall be enabled whenever the flare is required to be operated under the requirements of Part 9 above. (basis: Regulation 8-34-301.41)

16. The A-3 Landfill Gas Flare shall be equipped with a combustion temperature readout monitor and continuous recorder. (basis: Regulation 8-34-507 and Toxic Risk Management Policy)

17. In order to demonstrate compliance with Regulation 8, Rule 34, Section 301.3, parts 11 and 12 above, and 40 CFR 60 .752(b)(2)(iii)(B), the Permit Holder shall ensure that a District approved source test is conducted annually on the Landfill Gas Flare (A-3). As a minimum, the annual source test shall determine the following:
    a. landfill gas flow rate to the flare (dry basis);
    b. concentrations (dry basis) of carbon dioxide (CO_2), nitrogen (N_2), oxygen (O_2), methane (CH_4), total non-methane organic compounds (NMOC), and total hydrocarbons (THC) in the landfill gas;
    c. stack gas flow rate from the flare (dry basis);
    d. concentrations (dry basis) of CH_4, NMOC, THC, and O_2 in the flare stack gas;
    e. emission rates (lb/MMBTU) of nitrogen oxides (NOx) and carbon monoxide (CO)
    f. the CH_4, NMOC, and THC destruction efficiencies achieved by the flare; and
    g. the average combustion temperature in the flare during the test period.

    Annual source tests shall be conducted no sooner than 9 months and no later than 12 months after the previous source test. The Source Test Section of the District shall be contacted to obtain their approval of the source test procedures at least 14 days in advance of each source test. They shall be notified of the scheduled test date at least 7 days in advance of each source test. The source test report shall be submitted to the Compliance and Enforcement Division within 60 days of the test date. [Basis: Cumulative Increase, Regulations 8-34-301.3 and 8-34-412 and 40 CFR 60.752(b)(2)(iii)(B)]

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*18. In order to demonstrate compliance with Part 6 above, the Permit Holder shall conduct a characterization of the landfill gas at least once per year. The landfill gas sample shall be drawn from the main landfill gas header. The landfill gas shall be analyzed for methane (CH_4), carbon dioxide (CO_2), nitrogen (N_2), oxygen (O_2), total sulfur, and all compounds listed in the most recent version of EPA's AP-42 Table 2.4-1, excluding acetone, carbon monoxide, and mercury. All concentrations shall be reported on a dry basis. The test report shall be submitted to the Compliance and Enforcement Division within 60 days of the test date. After conducting three annual landfill gas characterization tests, the Permit Holder may request to remove specific compounds from the list of compounds to be tested for if the compounds have not been detected, have no significant impact on the cancer risk determination for the site, and have no significant impact on the hazard index determination for the site. If the Permit Holder has excluded any NPOCs from the POC emission calculations for the site, then the Permit Holder shall continue to test for these NPOCs on an annual basis. (basis:Regulation 2-1-403)

19. In order to demonstrate compliance with the above conditions, the Permit Holder shall maintain the following records in a District approved logbook.
    a. Record the total amount of municipal solid waste received at S-1 on a daily basis.
    b. Summarize the daily waste acceptance records for each calendar month.
    c. Summarize monthly waste acceptance records for each preceding 12-month period.
    d. For each area or cell that is not controlled by a landfill gas collection system, maintain a record of the date that waste was initially placed in the area or cell.
    e. Record the cumulative amount of waste placed in each uncontrolled area or cell on a monthly basis.
    f. If the Permit Holder plans to exclude an uncontrolled area or cell from the collection system requirement, the Permit Holder shall also record the types and amounts of all non-decomposable waste placed in the area and the percentage (if any) of decomposable waste placed in the area.
    g. Record the initial operation date for each new landfill gas well and collector.

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Condition # 4044
For S-1 Sonoma County Central Landfill, S-22 Waste and Cover Material, S-23 Mobile Surface Equipment, A-3 Landfill Gas Flare, and A-8 Water Sprays

h. Maintain an accurate map of the landfill which indicates the locations of all refuse boundaries and the locations of all wells and collectors (using unique identifiers) that are required to be operating continuously pursuant to Part 5.a. Any areas containing only non-decomposable waste shall be clearly identified. This map shall be updated at least every six months to indicate changes in refuse boundaries and to include any newly installed wells and collectors.
i. Record the operating times for the A-3 Landfill Gas Flare on a daily basis.
j. Record the total amount of landfill gas vented to A-3 on a daily basis.
k. Summarize the amount of landfill gas vented to A-3 on a monthly basis.
l. Maintain continuous records of the combustion temperature achieved at A-3during all hours of operation.
m. Maintain records of all test dates and test results performed to maintain compliance these permit conditions.
n. For each dust suppressant application, maintain records of the date the dust suppressant was applied, the areas that it was applied to, the type of dust suppressant used, and the amount of dust suppressant that was applied.
o. Maintain daily records of the water application frequency for construction areas, unpaved roads, and dirt and rock stockpiles.

All records shall be maintained on site or shall be made readily available to District staff upon request for at least 5 years from the date of entry. These record keeping requirements do not replace the record keeping requirements contained in any applicable rules or regulations.
(basis: Cumulative Increase and Regulations 6-301, 6-305, 8-34-304, 8-34-501.3, and 8-34-501.8)

*20. Handling Procedures for Soil Containing Volatile Organic Compounds
a. The procedures listed below in subparts b-k do not apply if the following criteria are satisfied. However, the record keeping requirements in subpart l below are applicable.
i. The Permit Holder has appropriate documentation demonstrating that either the organic content of the soil or the organic concentration above the soil is below the “contaminated” level (as defined in Regulation 8, Rule 40, Sections 205, 207, and 211).

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Condition # 4044
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ii. The Permit Holder has no documentation to prove that soil is not contaminated, but source of the soil is known and there is no reason to suspect that the soil might contain organic compounds.

b. Any soil received at the facility that is known or suspected to contain volatile organic compounds (VOCs) shall be handled as if the soil were contaminated, unless the Permit Holder receives test results proving that the soil is not contaminated. To prove that the soil is not contaminated, the Permit Holder shall collect soil samples in accordance with Regulation 8-40-601 within 24 hours of receipt of the soil by the facility. The organic content of the collected soil samples shall be determined in accordance with Regulation 8-40-602.

i. If these test results indicate that the soil is still contaminated or if the soil was not sampled within 24 hours of receipt by the facility, the Permit Holder must continue to handle the soil in accordance with the procedures subparts c-k below, until the soil has completed treatment or has been placed in a final disposal location and adequately covered. Storing soil in a temporary stockpile or pit is not considered treatment. Co-mingling, blending, or mixing of soil lots is not considered treatment.

ii. If these test results indicate that the soil – as received at the facility – has an organic content of 50 ppmw or less, then the soil may be considered to be not contaminated and need not be handled in accordance with the procedures listed in subparts c-k below.

c. Any contaminated soil received at the facility shall be clearly identified as contaminated soil, shall be handled in accordance with subparts d-k below, and shall be segregated from non-contaminated soil. Contaminated soil lots may not be co-mingled, blended, or otherwise mixed with non-contaminated soil lots prior to treatment, reuse, or disposal. Mixing soil lots in an attempt to reduce the overall concentration of the contaminated soil or to circumvent any requirements or limits is strictly prohibited.

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d. On-site handling of contaminated soil shall be limited to no more than 2 on-site transfers per soil lot. For instance, unloading soil from off-site transport vehicles into a temporary storage pile would be considered 1 transfer. Moving soil from a temporary storage to a staging area would be considered 1 transfer. Moving soil from a temporary storage pile to a final disposal site would be considered 1 transfer. Moving soil from a staging area to a final disposal site would be considered 1 transfer. Therefore, unloading soil from off-site transport into a temporary storage pile and then moving the soil from that temporary storage pile to the final disposal site would be allowed. Unloading soil from off-site transport into a staging area and then moving the soil from that staging area to the final disposal site would be allowed. However, unloading soil from off-site transport to a temporary storage pile, moving this soil to a staging area, and then moving the soil again to a final disposal site would be 3 on-site transfers and would not be allowed.

e. If the contaminated soil has an organic content of less than 500 ppmw, the contaminated soil shall be treated, deposited in a final disposal site, or transported off-site for treatment within 90 days of receipt at the facility.

f. If the contaminated soil has an organic content 500 ppmw or more, the contaminated soil shall be treated, deposited in a final disposal site, or transported off-site for treatment within 45 days of receipt at the facility.

g. All active storage piles shall meet the requirements of Regulation 8-40-304 by using water sprays, vapor suppressants or approved coverings to minimize emissions. The exposed surface area of any active storage pile (including the active face at a landfill) shall be limited to 6000 ft^2. The types of storage piles that may become subject to these provisions include (but are not limited to) truck unloading areas, staging areas, temporary stockpiles, soil on conveyors, bulldozers or trucks, the active face of a landfill, or other permanent storage pile at the final disposal location.

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For S-1 Sonoma County Central Landfill, S-22 Waste and Cover Material, S-23 Mobile Surface Equipment, A-3 Landfill Gas Flare, and A-8 Water Sprays

h. All inactive storage piles shall meet the requirements of Regulation 8-40-305 including the requirement to cover contaminated soil during periods of inactivity longer than one hour. The types of storage piles that may become subject to these provisions include (but are not limited to) soil on trucks or other on-site equipment, staging areas, temporary stockpiles, and the permanent storage pile at the final disposal location. District approved coverings for inactive storage piles include continuous heavy-duty plastic sheeting (in good condition, joined at the seams, and securely anchored) or encapsulating vapor suppressants (with re-treatment as necessary to prevent emissions).

i. For landfills, Permit Holders must:

   i. Keep contaminated soil covered with continuous heavy-duty plastic sheeting (in good condition, joined at the seams, and securely anchored) whenever soil is to be stored in temporary stockpiles or during on-site transport in trucks. Soil in trucks shall not be left uncovered for more than 1 hour.

   ii. Establish a tipping area for contaminated soils near the active face that is isolated from the tipping area for other wastes.

   iii. Spray contaminated soil with water or vapor suppressant immediately after dumping the soil from a truck at the tipping area.

   iv. Ensure that all contaminated soil is transferred from the tipping area to the active face immediately after spraying with water or vapor suppressant.

   v. Ensure that contaminated soil in the tipping area is not disturbed by subsequent trucks. Trucks shall not drive over contaminated soil in the tipping area or track contaminated soil out of the tipping area on their wheels.

   vi. Spray contaminated soil on the active face with water or vapor suppressant (to keep the soil visibly moist) until the soil can be covered with an approved covering.

   vii. Limit the area of exposed soil on the active face to no more than 6000 ft^2.

   viii. Ensure that contaminated soil that has been spread on the active face is completely covered on all sides with one of the following approved coverings: at least 6 inches of clean compacted soil, at least 12 inches of compacted garbage, or at least 12 inches of compacted green waste.

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For S-1 Sonoma County Central Landfill, S-22 Waste and Cover Material, S-23 Mobile Surface Equipment, A-3 Landfill Gas Flare, and A-8 Water Sprays

ix. Ensure that covering of soil on the active face is completed within one hour of the time that the soil was first dumped from a truck at the tipping area.

j. Contaminated soil shall not be used as daily, intermediate, or final cover material for landfill waste operations unless the requirements of Regulation 8, Rule 40, Sections 116 or 117 have been satisfied.

k. Contaminated soil is considered to be a decomposable solid waste pursuant to Regulation 8, Rule 34. All contaminated soil disposed of at a site shall be included in any calculations of the amount of decomposable waste in place that are necessary for annual reporting requirements or for determining the applicability of 8-34-111 or 8-34-304.

l. The Permit Holder shall keep the following records for each lot of soil received, in order to demonstrate on-going compliance with the applicable provisions of Regulation 8, Rule 40.

i. For all soil received by the facility (including soil with no known contamination), record the arrival date at the facility, the soil lot number, the amount of soil in the lot, the organic content or organic concentration of the lot (if known), the type of contamination (if any), and keep copies of any test data or other information that documents whether the soil is contaminated (as defined in 8-40-205) or not contaminated, with what, and by how much.

ii. If the soil is tested for organic content after receipt by the facility, record the sampling date, test results, and the date that these results were received.

iii. For all on-site handling of contaminated soil, use a checklist or other approved method to demonstrate that appropriate procedures were followed during all on-site handling activities. One checklist shall be completed for each day and for each soil lot (if multiple lots are handled per day).

iv. For soil aerated in accordance with 8-40-116 or 117 record the soil lot number, the amount of soil in the lot, the organic content, the final placement date, the final placement location, and describe how the soil was handled or used on-site.

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v. For final disposal at a landfill, record on a daily basis the soil lot number, the amount of soil placed in the landfill, the disposal date, and the disposal location.

All records shall be retained for at least 5 years from the date of entry and shall be made available for District inspection upon request.
(basis: Regulation 8-40-301, 8-40-304 and 8-40-305)

21. The Permit Holder shall limit the quantity of soil (that contains VOCs) disposed of per day so that no more than 15 pounds of total carbon could be emitted to the atmosphere per day. In order to demonstrate compliance with this condition, the Permit Holder shall maintain the following records in a District approved log.
    a. Record on a daily basis the amount of soil (that contains VOCs) disposed of in the landfill and used as cover material in the landfill. This total amount (in units of pounds per day) is Q in the equation in subpart c. below.
    b. Record on a daily basis the VOC content of all soils disposed of or used as cover material. This VOC Content (C in the equation below) should be expressed as parts per million by weight as total carbon (or C_1).
    c. Calculate and record on a daily basis the VOC Emission Rate (E) using the following equation:
    $E = Q * C / 1E6$

    All records shall be maintained on site or shall be made readily available to District staff upon request for at least 5 years from the date of entry.
    (basis: Regulation 8-2-301)

VI. Permit Conditions

Condition # 19933
For S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, S-14 Lean Burn Internal Combustion Engines and Generator Sets

Note: S-13 and S-14 are permitted to combust either landfill gas or compost biogas. While fueled by biogas or on inactive status (no landfill gas combusted during the annual reporting period), S-13 and S-14 are not subject to the provisions of these conditions. While fueled by biogas they are subject to Permit Condition #24894.

1. All collected landfill gas shall be vented to properly operating abatement equipment including the Internal Combustion Engines (S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, and S-14) and/or the Landfill Gas Flare (A-3). Under no circumstances shall raw landfill gas be vented to the atmosphere. This limitation does not apply to unavoidable landfill gas emissions that occur during control system installation, maintenance, or repair that is performed in compliance with Regulation 8, Rule 34, Sections 113, 116, 117, or 118 or to inadvertent component or surface leaks that do not exceed the limits specified in 8-34-301.2 or 8-34-303. (basis: Regulation 8-34-301)

2. The A-3 Landfill Gas Flare shall be operated as necessary to combust excess gas whenever the flow of landfill gas exceeds the capacity of the IC engines in service. (basis: Regulation 8-34-301)

3. The Internal Combustion Engines (S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, and S-14) shall be fired exclusively on landfill gas. If required, natural gas can be used as a supplemental fuel, but it shall not reduce or replace landfill gas available for use in these engines. Natural gas shall not be used as supplemental fuel when the A-3 Flare is operating concurrently with these engines. (basis: Offsets and Cumulative Increase)

4. District approved flowmeters, to measure landfill gas flow into the engines, shall be installed prior to any operation and maintained in good working condition. (basis: Regulation 2-1-403)

5. Nitrogen Oxide (NO_x) emissions, calculated as NO_2, from each Internal Combustion Engine (S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, and S-14) shall not exceed0.80 grams per brake horsepower hour (g/bhp-hr). (basis: BACT, Offsets, and Cumulative Increase)

6. Carbon Monoxide (CO) emissions from each Internal Combustion Engine (S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13 and S-14) shall not exceed 2.1 g/bhp-hr. (basis: BACT)

VI. Permit Conditions

Condition # 19933
For S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, S-14 Lean Burn Internal Combustion Engines and Generator Sets

7. Each Internal Combustion Engine (S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13 and S-14) shall comply with either the destruction efficiency requirements or the non-methane organic compound (NMOC) outlet concentration limit specified in Regulation 8-34-301.4. (basis: BACT, Offsets, and Regulation 8-34-301.4)

8. In order to demonstrate compliance with Parts #5, #6, and #7 above, Regulation 8, Rule 34, Sections 114 and 301.4, Regulation 9, Rule 8, Sections 302.1 and 302.3 the Permit Holder shall ensure that a District approved source test is conducted annually on each Internal Combustion Engine (S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, and S-14). As a minimum, the annual source tests shall determine the following:
   a. landfill gas flow rate to each engine (dry basis);
   b. concentrations (dry basis) of carbon dioxide (CO_2), nitrogen (N_2), oxygen (O_2), CH_4, NMOC, and total hydrocarbons (THC) in the landfill gas;
   c. exhaust gas flow rate from each engine (dry basis);
   d. concentrations (dry basis) of NO_x, CO, CH_4, NMOC, THC, and O_2 in the exhaust gas from each engine;
   e. the CH_4, NMOC, and THC destruction efficiencies achieved by each engine; and
   f. the average exhaust temperature measured for each engine during the test period.

   Source tests for each engine shall be conducted no sooner than 9 months and no later than 12 months after the previous source test. The Source Test Section of the District shall be contacted to obtain their approval of the source test procedures at least 14 days in advance of each source test. They shall be notified of the scheduled test date at least 7 days in advance of each source test. The source test report shall be submitted to the Compliance and Enforcement Division within 60 days of the test date.
   (basis: BACT, Offsets, Regulations 8-34-114, 8-34-301.4, 8-34-412, 9-8-302.1, and 9-8-302.3)

VI. Permit Conditions

Condition # 19933
For S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, S-14 Lean Burn Internal Combustion Engines and Generator Sets

9. The Permit Holder shall maintain the following records in a District approved logbook:
   a. On a daily basis, record the operating times for each engine.
   b. On a daily basis, calculate and record the amount of landfill gas burned in each engine.
   c. On any day that natural gas is burned in an engine, record the amount of natural gas burned in each engine.
   d. On a monthly basis, summarize all daily records for each engine.
   e. On a monthly basis, calculate and record the maximum daily and total monthly heat input rate (in BTU) to each engine based on the average methane concentration in the landfill gas (as measure during the most recent source test), a high heating value for methane of 1013 BTU/scf, a high heating value for natural gas of 1050 BTU/scf, and the amounts of landfill gas and natural gas burned in each engine (recorded pursuant to subparts b. and c. above).
   f. On an annual basis: record the fuel-to-air-ratio setting for each engine during the source test required in Part #8.

   All records shall be maintained on site or shall be made readily available to District staff upon request for at least 5 years from the date of entry. These record keeping requirements do not replace the record keeping requirements contained in any applicable rules or regulations.
   (basis: Regulation 2-1-403, Cumulative Increase, and Offsets)

10. The heat input to each Internal Combustion Engine (S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, and S-14) shall not exceed 252.6 million BTU per day nor 92,199 million BTU per year based on the higher heating value (HHV) of the fuel. (basis: Regulation 2-1-301)

VI. Permit Conditions

Condition # 19933
For S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, S-14 Lean Burn Internal Combustion Engines and Generator Sets

11. In order to demonstrate ongoing NMOC destruction through proper combustion in the Internal Combustion Engines (S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, and S-14), the permit holder shall operate each engine at the fuel-to-air ratio established during the most recent complying source test. In addition, the exhaust oxygen concentration for each engine shall be maintained within a range of 6.4 to 8.3 percent as established in Permit Application #9277. In order to demonstrate compliance with this requirement, the exhaust gas oxygen content for each engine shall be measured and recorded in a District approved log on at least a monthly basis. Monthly oxygen measurements shall be made with a LAND Instruments Lancom III portable flue gas analyzer or District approved equivalent. If this device is not the same device used to measure oxygen content during the annual performance test required by part 8 above, it shall be calibrated to achieve a one to one correlation to the device used during the performance test. If the same device is used for both the annual performance test and for monthly monitoring its calibration shall be maintained to achieve a one to one correlation with its condition at the time of the performance test.

    If the fuel-to-air ratio is not set as established during the most recent complying source test or if the oxygen content measured during a monthly inspection is outside the established range, it shall be considered a reportable exceedance and shall be included in the semi-annual monitoring report required by Section I.F. of the Title V permit. A fuel-to-air ratio exceedance shall be corrected upon discovery. If an exceedance of the oxygen content range occurs, the engine operating parameters shall be adjusted until the measured oxygen concentration is within the established range. For each occurrence of an exhaust gas oxygen concentration outside of the established range, monitoring of that engine shall be repeated every seven days until compliance has been established on two consecutive tests where no adjustments to the engine operating parameters were made. All equipment calibration and monitoring records shall be maintained on site or shall be made readily available to District staff upon request for at least 5 years from the date of entry. (Basis: Regulations 8-34-301.4, 8-34-501.4 and 8-34-509)

VI. Permit Conditions

Condition # 23087
For S-15 Landfill Gas Compression Plant – Pilot Scale

1. The Landfill Gas Compression Plant S-15 shall be designed and operated as a closed loop system, with all waste gases vented to a landfill gas control device that meets the applicable requirements of Regulation 8-34-301. (basis: Cumulative Increase, Regulation 8-34-301)

Condition # 24894
For S-13, S-14 Lean Burn Internal Combustion Engines and Generator Sets - Fueled by Compost Biogas

1. The Internal Combustion Engines S-13 and S-14 are permitted to be fueled either by landfill gas or compost generated biogas fuel. However, these conditions apply only to biogas fueling. When fueled by landfill gas, S-13 and S-14 are subject to the requirements of BAAQMD Permit Condition #19933. (Basis: Regulation 2-1-403)

2. The total fuel heat input to each of the Internal Combustion Engines S-13 and S-14 shall not exceed 92,199 million BTUs (MMBTU) during any rolling consecutive 12-month period, based on the higher heating value (HHV) of the fuel. Note: This is a maximum total fuel consumption limit regardless of the fuel type. (Basis: Cumulative Increase)

3. S-13 and S-14 shall be equipped with District approved flow meters, to measure fuel gas flow into the engines. (basis: Regulation 2-1-403)

4. Nitrogen Oxide (NOx) emissions, calculated as NO2, from each of the Internal Combustion Engines S-13 and S-14 shall not exceed 0.80 grams per brake horsepower hour (g/bhp-hr). (basis: BACT, Offsets, and Cumulative Increase)

5. Carbon Monoxide (CO) emissions from each of the Internal Combustion Engines S-13 and S-14 shall not exceed 2.1 g/bhp-hr. (basis: BACT)

6. Non-methane organic compounds (NMOC) emissions from each of the Internal Combustion Engines S-13 and S-14 shall not exceed 120 ppmv, expressed methane, dry basis, corrected to 3% O2. (Basis: Cumulative Increase)

VI. Permit Conditions

7. In order to demonstrate compliance with Part 2 above, the Permit Holder shall ensure that each of the Internal Combustion Engines S-13 and S-14 is equipped with a non-resettable fuel usage meter to record gas flow in standard cubic feet (scf) to each engine. The monthly heat input to each engine is the product of the monthly landfill gas flow (scf) and the average fuel heat content (MMBTU, expressed as HHV) measured during the period. Measurements of fuel heat content shall be made with a District approved device and recorded on at least a weekly basis. (Basis: Cumulative Increase, Offsets, Toxics Risk Assessment)

8. In order to demonstrate compliance with Parts #4 through #7 above, and Regulation 9, Rule 8, Sections 302.1 and 302.3 the Permit Holder shall ensure that a District approved source test is conducted annually on each Internal Combustion Engine S-13 and S-14. As a minimum, the annual source tests shall determine the following:
   a. biogas gas flow rate to each engine;
   b. concentrations (dry basis) of carbon dioxide (CO2), nitrogen (N2), oxygen (O2), CH4, NMOC, and total hydrocarbons (THC) in the fuel gas;
   c. exhaust gas flow rate from each engine (dry basis);
   d. concentrations (dry basis) of NOx, CO, CH4, NMOC, THC, and O2 in the exhaust gas from each engine; and
   e. fuel heat content in MMBTU (HHV)

   Source tests for each engine shall be conducted no sooner than 9 months and no later than 12 months after the previous source test. The Source Test Section of the District shall be contacted to obtain their approval of the source test procedures at least 14 days in advance of each source test. They shall be notified of the scheduled test date at least 7 days in advance of each source test. The source test report shall be submitted to the Compliance and Enforcement Division within 60 days of the test date. (basis: BACT, Cumulative Increase, Regulations 9-8-302.1, and 9-8-302.3)

9. In order to demonstrate compliance with the above requirements, the Permit Holder shall maintain the following records in a District approved log for S-13 and S-14.
   a. daily fuel consumption, summarized on a monthly basis
   b. daily hours of operation, summarized on a monthly basis
   c. weekly fuel heat value measurements in BTU/scf
   d. monthly fuel heat input in MMBTU
   e. all results of initial and annual source testing required in Part 8.

VI. Permit Conditions

All records shall be maintained on site or shall be made readily available to District staff upon request for at least 5 years from the date of entry. These record keeping requirements do not replace the record keeping requirements contained in any applicable rules or regulations. (basis: Cumulative Increase, Regulation 2-6-501)

VII. APPLICABLE LIMITS AND COMPLIANCE MONITORING REQUIREMENTS

This section has been included only to summarize the applicable emission limits contained in Section IV, Source-Specific Applicable Requirements, of this permit. The following tables show the relationship between each emission limit and the associated compliance monitoring provisions, if any. The monitoring frequency indicates whether periodic (P) or continuous (C) monitoring is required. For periodic monitoring, the frequency of the monitoring has also been shown, using the following codes: annual (A), quarterly (Q), monthly (M), weekly (W), daily (D), or on an event basis (E). No monitoring (N) has been required if the current applicable rule or regulation does not require monitoring, and the operation is unlikely to deviate from the applicable emission limit based upon the nature of the operation.

This section is only a summary of the limits and monitoring requirements. In the case of a conflict with any requirement in Sections I-VI, the preceding sections take precedence over Section VII.

Table VII-A
Applicable Limits and Compliance Monitoring Requirements
S-1 - Landfill with Gas Collection System
S-15 – Landfill Gas Compression Plant
S-22: WASTE AND COVER MATERIAL
S-23: MOBILE SURFACE EQUIPMENT
A-3 – Landfill Gas Flare

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Collection System Installa-tion Dates	BAAQMD 8-34-304.1	Y		For Inactive/Closed Areas: collection system components must be installed and operating by 2 years + 60 days after initial waste placement	BAAQMD 8-34-501.7 and 501.8 and BAAQMD Condition # 4044, Parts 19d, f, g, h	P/E	Records
Collection System Installa-tion Dates	BAAQMD 8-34-304.2 and BAAQMD Condition # 4044, Part 4	Y		For Active Areas: Collection system components must be installed and operating by 5 years + 60 days after initial waste placement	BAAQMD 8-34-501.7 and 501.8 and BAAQMD Condition # 4044, Parts 19d, f, g, h	P/E	Records

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Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Collection System Installa-tion Dates	BAAQMD 8-34-304.3 and BAAQMD Condition # 4044, Part 4	Y		For Any Uncontrolled Areas or Cells: collection system components must be installed and operating within 60 days after the uncontrolled area or cell accumulates 1,000,000 tons of decomposable waste	BAAQMD 8-34-501.7 and 501.8 and BAAQMD Condition # 4044, Parts 19e-h	P/E	Records
Collection System Installa-tion Dates	40 CFR 60.753 (a)(2) and 60.755 (b)(2)	Y		For Inactive/Closed Areas: collection system components must be installed and operating by 2 years + 60 days after initial waste placement	40 CFR 60.758(a), (d)(1) and (d)(2), and 60.759(a)(3) and BAAQMD Condition # 4044, Parts 19d, f, g	P/E	Records
Collection System Installa-tion Dates	40 CFR 60.753 (a)(1) and 60.755 (b)(1)	Y		For Active Areas: Collection system components must be installed and operating by 5 years + 60 days after initial waste placement	40 CFR 60.758(a), (d)(1) and (d)(2) and BAAQMD Condition # 4044, Parts 19d, f, g	P/E	Records

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Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Gas Flow	BAAQMD 8-34-301 and 301.1; BAAQMD Condition # 4044, Parts 4a, 5, 8, and 9; BAAQMD Condition #19933, Parts 1 & 2	Y		Landfill gas collection system shall operate continuously and all collected gases shall be vented to a properly operating control system	BAAQMD Condition #4044, Part 11 and Condition #19933, Part 4	C	Gas Flow Meter
Gas Flow	BAAQMD 8-34-301 and 301.1; BAAQMD Condition # 4044, Parts 4a, 5, 8, and 9; BAAQMD Condition #19933, Parts 1 & 2	Y		Landfill gas collection system shall operate continuously and all collected gases shall be vented to a properly operating control system	BAAQMD 8-34-501.10 and 508	C	Gas Flow Meter and Recorder (every 15 minutes);

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Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Gas Flow	40 CFR 60.753(a) and (e)	Y		Operate a Collection System in each area or cell and vent all collected gases to a properly operating control system	40 CFR 60.756(b)(2) (i or ii) and 60.758(c)(2)	C or P/M	Gas Flow Meter and Recorder (every 15 minutes) or Monthly Inspection of Bypass Valve and Lock and Records
Collection and Control Systems Shutdown Time	BAAQMD 8-34-113.2	Y		240 hours/year nor 5 consecutive days	BAAQMD 8-34-501.1 and BAAQMD Condition # 4044, Part 19i	P/D	Operating Records
Collection System Startup Shutdown or Malfunc-tion	40 CFR 60.755(e)	Y		5 days per event for collection system or 1 hour for control system	40 CFR 60.7(b), 60.757(f)(2) and (f)(4)	P/D	Operating Records (all occurrences and duration of each)
Periods of Inopera-tion for Para-metric Monitors	BAAQMD 1-523.2	Y		15 consecutive days/incident and 30 calendar days/12 month period	BAAQMD 1-523.4	P/D	Operating Records for All Parametric Monitors

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A-3 – Landfill Gas Flare

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Contin-uous Monitors	40 CFR 60.13(e)	Y		Requires Continuous Operation except for breakdowns, repairs, calibration, and required span adjustments	40 CFR 60.7(b)	P/D	Operating Records for All Continuous Monitors
Wellhead Pressure	BAAQMD 8-34-305.1	Y		< 0 psiq	BAAQMD 8-34-414, 501.9 and 505.1	P/M	Monthly Inspection and Records
Wellhead Pressure	40 CFR 60.753(b)	Y		< 0 psig	40 CFR 60.755(a)(3), 60.756(a)(1), and 60.758(c) and (e)	P/M	Monthly Inspection and Records
Temper-ature of Gas at Wellhead	BAAQMD 8-34-305.2	Y		< 55 ^{o}C	BAAQMD 8-34-414, 501.9 and 505.2	P/M	Monthly Inspection and Records
Temper-ature of Gas at Wellhead	40 CFR 60.753(c)	Y		< 55 ^{o}C	40 CFR 60.755(a)(5), 60.756(a)(3), and 60.758(c) and (e)	P/M	Monthly Inspection and Records
Gas Concen-trations at Wellhead	BAAQMD 8-34-305.3 or 305.4	Y		N_2 < 20% **OR** O_2 < 5%	BAAQMD 8-34-414, 501.9 and 505.3 or 505.4	P/M	Monthly Inspection and Records

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Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Gas Concen-trations at Wellhead	40 CFR 60.753(c)	Y		N_2 < 20% **OR** O_2 < 5%	40 CFR 60.755(a)(5), 60.756(a)(2), and 60.758(c) and (e)	P/M	Monthly Inspection and Records
Well Shutdown Limits	BAAQMD 8-34-116.2	Y		No more than 5 wells at a time or 10% of total collection system, whichever is less	BAAQMD 8-34-116.5 and 501.1	P/D	Records
Well Shutdown Limits	BAAQMD 8-34-116.3	Y		24 hours per well	BAAQMD 8-34-116.5 and 501.1	P/D	Records
Well Shutdown Limits	BAAQMD 8-34-117.4	Y		No more than 5 wells at a time or 10% of total collection system, whichever is less	BAAQMD 8-34-117.6 and 501.1	P/D	Records
Well Shutdown Limits	BAAQMD 8-34-117.5	Y		24 hours per well	BAAQMD 8-34-117.6 and 501.1	P/D	Records
TOC (Total Organic Com-pounds Plus Methane)	BAAQMD 8-34-301.2	Y		1000 ppmv as methane (component leak limit)	BAAQMD 8-34-501.6 and 503	P/Q	Quarterly Inspection of collection and control system components with OVA and Records

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Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
TOC	BAAQMD 8-34-303	Y		500 ppmv as methane at 2 inches above surface	BAAQMD 8-34-415, 416, 501.6, 506 and 510	P/M, Q, and E	Monthly Visual Inspection of Cover, Quarterly Inspection with OVA of Surface, Various Reinspec-tion Times for Leaking Areas, and Records
TOC	40 CFR 60.753(d)	Y		<500 ppmv as methane at 5-10 cm from surface	40 CFR 60.755(c)(1), (4) and (5), 60.756(f), and 60.758(c) and (e)	P/M, Q and E	Monthly Visual Inspection of Cover, Quarterly Inspection with OVA of Surface, Various Reinspec-tion Times for Leaking Areas, and Records

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Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Non-Methane Organic Com-pounds (NMOC)	BAAQMD 8-34-301.3	Y		98% removal by weight OR < 30 ppmv dry @ 3% O_2, expressed as methane	BAAQMD 8-34-412 and BAAQMD Condition # 4044, Parts 17 and 19m	P/A	Initial and Annual Source Tests
NMOC	40 CFR 60.752(b)(2)(iii)(B)	Y		98% removal by weight OR < 20 ppmv dry @ 3% O_2, expressed as hexane	40 CFR 60.8 and 60.752(b)(2)(iii)(B) and 60.758 (b)(2)(ii)	P	Initial Source Test and Records
NOx	BAAQMD Condition # 4044, Part 11	Y		0.05 lb/MMBTU (as NO_2)	BAAQMD Condition # 4044, Part 17	P/A	Annual Source Test
CO	BAAQMD Condition # 4044, Part 12	Y		0.20 lb/MMBTU	BAAQMD Condition # 4044, Part 17	P/A	Annual Source Test
Temper-ature of Combus-tion Zone (CT)	BAAQMD Condition # 4044, Part 10	N		CT $\geq$ 1400 °F	BAAQMD 8-34-501.3 and 507 and BAAQMD Condition # 4044, Parts 16 and 19l	C	Temperature Sensor and Recorder (continuous)

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Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Temper-ature of Combus-tion Zone (CT)	40 CFR 60.758 (c)(1)(i)	Y		CT (3-hour average) $\geq$ (CT_{PF} – 28 ^{o}C), where CT_{PF} is the average combustion temperature during the most recent complying performance test	40 CFR 60.756(b)(1) and 60.758 (b)(2)(i)	C	Temperature Sensor and Recorder (measured every 15 minutes and averaged over performance test time period and 3-hours)
Total Carbon	BAAQMD 8-2-301	Y		15 pounds/day or 300 ppm, dry basis only for aeration of or use as cover soil of soil containing $\leq$ 50 ppmw of volatile organic compounds	BAAQMD Condition # 4044, Part 21a-c	P/E	Records
Amount of Contami-nated Soil Aerated or Used as Cover	BAAQMD 8-40-116.1	Y		1 cubic yard per project	BAAQMD Condition # 4044, Part 20l	P/E	Records

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Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Amount of Contami-nated Soil Aerated or Used as Cover	BAAQMD 8-40-116.2	Y		8 cubic yards per project, provided organic content ≤ 500 ppmw and limited to 1 exempt project per 3 month period	BAAQMD 8-40-116.2 and BAAQMD Condition # 4044, Part 20l	P/E	Records
Amount of Contami-nated Soil Aerated or Used as Cover	BAAQMD 8-40-301	Y		Prohibited for Soil with Organic Content >50 ppmw unless exempt per BAAQMD 8-40-116, 117, or 118	BAAQMD Condition # 4044, Part 20l	P/E	Records
Amount of Acci-dental Spillage	8-40-117	Y		Soil Contaminated by Accidental Spillage of ≤ 5 gallons of Liquid Organic Compounds		N	
Total Aeration Project Emissions	BAAQMD 8-40-118	Y		150 pounds per project and toxic air contaminant emissions per year <BAAQMD Table 2-1-316 limits	BAAQMD Condition # 4044, Part 20l	P/E	Records
Contami-nated Soil Handling	BAAQMD Condtion # 4044, Part 20d	N		Limited to 2 on-site transfers per lot of contaminated soil	BAAQMD Condition # 4044, Part 20l	P/E	Records

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A-3 – Landfill Gas Flare

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Contami-nated Soil On-Site Storage Time	BAAQMD Condtion # 4044, Part 20e-f	N		If organic content is: < 500 ppmw, storage time ≤ 90 days ≥ 500 ppmw, storage time ≤ 45 days	BAAQMD Condition # 4044, Part 20l	P/E	Records
Opacity	BAAQMD 6-301	Y		Ringelmann No. 1 for 3 minutes in any hour	BAAQMD Condition # 4044, Part 19n-o	P/E	Records of Dust Suppressant and Water Application
Opacity	BAAQMD 6-301	Y		Ringelmann No. 1 for 3 minutes in any hour (applies to FlareA-3)		N	
FP	BAAQMD 6-310	Y		0.15 grains/dscf (applies to FlareA-3)		N	
Opacity	BAAQMD Condition # 4044, Part 2	Y		Ringelmann No. 0.5	BAAQMD Condition # 4044, Part 19n-o	P/E	Records of Dust Suppressant and Water Application
Amount of Waste Accepted	BAAQMD Condition # 4044, Part 1	Y		≤ 2500 tons/day (except for temporary situations approved by the LEA) and ≤ 897,500 tons/year	BAAQMD Condition # 4044, Part 19a-c	P/D	Records

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A-3 – Landfill Gas Flare

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Total Amount of Waste and Cover Materials	BAAQMD Condition # 4044, Part 1	Y		≤ 32.65 E6 yd^3 and ≤ 19.59 E6 tons	BAAQMD Condition # 4044, Part 19c	P/M	Records
SO_2	BAAQMD 9-1-301	Y		Property Line Ground Level Limits ≤ 0.5 ppm for 3 minutes and ≤ 0.25 ppm for 60 minutes and ≤0.05 ppm for 24 hours		N	
SO_2	BAAQMD 9-1-302	Y		≤ 300 ppm (dry)	BAAQMD Condition # 4044, Parts 18 and 19m	P/A	Sulfur Analysis of landfill gas
H_2S	BAAQMD 9-2-301	N		Property Line ground level limits ≤ 0.06 ppm Averaged over 3 minutes and ≤ 0.03 ppm Averaged over 60 minutes		N	
Total Sulfur Content in Landfill Gas	BAAQMD Condition # 4044, Part 7	Y		≤ 1300 ppmv	BAAQMD Condition # 4044, Parts 18 and 19m	P/A	Sulfur Analysis of landfill gas
Toxic Air Contam-inants in Collected Landfill Gas	BAAQMD Condition # 4044, Part 6	N		Benzene ≤ 2.5 ppmv Trichloroethylene ≤ 3.0 ppmv Perchloroethylene ≤ 3.0 ppmv MethyleneChloride≤20.0ppmv Vinyl Chloride ≤ 2.5 ppmv	BAAQMD Condition # 4044, Part 18	P/A	Annual Source Test

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A-3 – Landfill Gas Flare

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Periods of Inopera-tion for Para-metric Monitors	BAAQMD 1-523.2	Y		15 consecutive days/incident and 30 calendar days/12 month period	BAAQMD 1-523.4	P/D	Operating Records for All Parametric Monitors
Contin-uous Monitors	40 CFR 60.13(e)	Y		Requires Continuous Operation except for breakdowns, repairs, calibration, and required span adjustments	40 CFR 60.7(b)	P/D	Operating Records for All Continuous Monitors
Heat Input	BAAQMD Condition #4044, Part 13	Y		≤ 547,680 MM BTU per year	BAAQMD Condition #4044, Part 13	P /M/A	Monthly and Annual Records

Table VII-B
Applicable Limits and Compliance Monitoring Requirements
S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, S-14 Lean Burn Internal Combustion Engines and Generator Sets

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
TSP	BAAQMD 6-301	Y		Ringelmann No. 1		N	
TSP	BAAQMD 6-310	Y		0.15 grains/dscf		N	

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Table VII-B
Applicable Limits and Compliance Monitoring Requirements
S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, S-14 Lean Burn Internal Combustion Engines and Generator Sets

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
TOC (Total Organic Com-pounds Plus Methane)	BAAQMD 8-34-301.2	Y		1000 ppmv as methane (component leak limit)	BAAQMD 8-34-501.6 and 8-34-503	P/Q	Quarterly Inspection and Records
Non-Methane Organic Com-pounds (NMOC)	BAAQMD 8-34-301.4	Y		98% removal by weight OR < 120 ppmv dry @ 3% O_2, expressed as methane	BAAQMD 8-34-412 and 8-34-501.4 and BAAQMD Condition #19933, Part 8	P/A	Initial and Annual Source Tests and Records
NMOC	BAAQMD Condition # 24894, Part 6	Y		< 120 ppmv dry @ 3% O_2, expressed as methane (S-13, S-14: when fired by biogas fuel)	BAAQMD Condition #24894, Part 8	P/A	Annual Source Test
POC	BAAQMD Condition # 19933, Part 7	Y		98% removal by weight OR < 120 ppmv dry @ 3% O_2, expressed as methane	BAAQMD Condition #19933, Part 8	P/A	Annual Source Test
SO_2	BAAQMD 9-1-301	Y		Property Line Ground Level Limits: $\leq$ 0.5 ppm for 3 minutes, $\leq$ 0.25 ppm for 60 minutes & $\leq$ 0.05 ppm for 24 hours		N	
SO_2	BAAQMD 9-1-302	Y		300 ppm (dry)	BAAQMD Condition # 4044, Parts 15 and 17m	P/A	Sulfur Analysis of landfill gas

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Table VII-B
Applicable Limits and Compliance Monitoring Requirements
S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, S-14 Lean Burn Internal Combustion Engines and Generator Sets

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
H_2S	BAAQMD 9-2-301	N		Property Line ground level limits $\leq$ 0.06 ppm Averaged over 3 minutes and $\leq$ 0.03 ppm Averaged over 60 minutes		N	
Total Sulfur Content in Landfill Gas	BAAQMD Condition # 4044, Part 7	Y		$\leq$ 1300 ppmv	BAAQMD Condition # 4044, Parts 15 and 17m	P/A	Sulfur Analysis of landfill gas
NO_x	BAAQMD 9-8-301.2	Y		Fossil Fuel Gas, Lean-Burn 140 ppmv dry @ 15% O_2		N	
NO_x	BAAQMD 9-8-302.1	Y		Waste Fuel Gas, Lean-Burn 140 ppmv dry @ 15% O_2	BAAQMD Condition #19933, Part 8	P/A	Annual Source Test
NO_x	BAAQMD Condition # 19933, Part 5	Y		0.80 grams per brake horsepower hour (g/bhp-hr)	BAAQMD Condition #19933, Part 8	P/A	Annual Source Test
NO_x	BAAQMD Condition # 24894, Part 4	Y		0.80 grams per brake horsepower hour (g/bhp-hr) (S-13, S-14: when fired by biogas fuel)	BAAQMD Condition #24894, Part 8	P/A	Annual Source Test
CO	BAAQMD 9-8-301.3	Y		Fossil Fuel Gas: 2000 ppmv dry @ 15% O_2		N	
CO	BAAQMD 9-8-302.3	Y		Waste Fuel Gas: 2000 ppmv dry @ 15% O_2	BAAQMD Condition #19933, Part 8	P/A	Annual Source Test
CO	BAAQMD Condition #19933, Part 6	Y		2.1 g/bhp-hr	BAAQMD Condition #19933, Part 8	P/A	Annual Source Test

VII. Applicable Limits and Compliance Monitoring Requirements

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Applicable Limits and Compliance Monitoring Requirements
S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, S-14 Lean Burn Internal Combustion Engines and Generator Sets

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
CO	BAAQMD Condition # 24894, Part 5	Y		2.1 grams per brake horsepower hour (g/bhp-hr) (S-13, S-14: when fired by biogas fuel)	BAAQMD Condition #24894, Part 8	P/A	Annual Source Test
Heat Input	BAAQMD Condition # 19933, Part 10	Y		Limits for each engine: $\leq$ 252.6 MM BTU/day And $\leq$ 92,199 MM BTU/year	BAAQMD Condition #19933, Part 9a-e	P/D	Records
Emission Control System Shutdown Time	BAAQMD 8-34-113.2	N		240 hours/year	BAAQMD 8-34-501.2 and BAAQMD Condition #19933, Part 9a	P/D	Records
Engine Exhaust Oxygen Content	BAAQMD 8-34-301.4	Y		98% removal by weight OR < 120 ppmv dry @ 3% O_2, expressed as methane (as demonstrated by proper exhaust oxygen content range)	BAAQMD Condition #19933, Part 11 and BAAQMD 8-34-509	P/M	Monthly Exhaust Oxygen Monitoring and Records
Natural Gas Usage	BAAQMD Condition # 19933, Part 3	Y		Prohibited when flare is operating and unless it is needed as supplemental fuel	BAAQMD Condition #19933, Part 9a-c	P/D	Records
Gas Flow	BAAQMD 8-34-301 and 301.1; BAAQMD Condition # 19933, Parts 1 & 2	Y		Vent all collected gases to a properly operating control system and operate control system continuously.	BAAQMD Condition #19933, Part 4	C	Gas Flow Meter (per engine)

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII-B
Applicable Limits and Compliance Monitoring Requirements
S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, S-14 Lean Burn Internal Combustion Engines and Generator Sets

Type of limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Gas Flow	BAAQMD 8-34-301 and 301.1; BAAQMD Condition # 19933, Parts 1 & 2	Y		Vent all collected gases to a properly operating control system and operate control system continuously.	BAAQMD 8-34-501.10 and 508	C	Gas Flow Meter and Recorder (every 15 minutes);
Periods of Inopera-tion for Para-metric Monitors	BAAQMD 1-523.2	Y		15 consecutive days/incident and 30 calendar days/12 month period	BAAQMD 1-523.4	P/D	Records of occurrence and duration

VIII. TEST METHODS

The test methods associated with the emission limit of a District regulation are generally found in Section 600 et seq. of the regulation. The following table indicates only the test methods associated with the emission limits referenced in Section VII, Applicable Emission Limits & Compliance Monitoring Requirements, of this permit.

Table VIII

Applicable Requirement	Description of Requirement	Acceptable Test Methods
SIP 6-301	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions
SIP 6-310	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulate
BAAQMD 8-2-301	Miscellaneous Operations	Manual of Procedures, Volume IV, ST-7, Organic Compounds; or EPA Reference Method 25 or 25A
BAAQMD 8-34-114	Energy Recovery Device and Emission Control System	Manual of Procedures, Volume IV, ST-7, Organic Compounds and ST-14, Oxygen, Continuous Sampling; or EPA Reference Method 18, 25, 25A, or 25C
BAAQMD 8-34-301.2	Collection and Control System Leak Limitations	EPA Reference Method 21, Determination of Volatile Organic Compound Leaks
BAAQMD 8-34-301.3	Limits for Flares	Manual of Procedures, Volume IV, ST-7, Organic Compounds and ST-14, Oxygen, Continuous Sampling; or EPA Reference Method 18, 25, 25A, or 25C
BAAQMD 8-34-301.4	Limits for Other Emission Control Systems	Manual of Procedures, Volume IV, ST-7, Organic Compounds and ST-14, Oxygen, Continuous Sampling; or EPA Reference Method 18, 25, 25A, or 25C
BAAQMD 8-34-303	Landfill Surface Requirements	EPA Reference Method 21, Determination of Volatile Organic Compound Leaks
BAAQMD 8-34-305.1	Wellhead Gauge Pressure	APCO Approved Device
BAAQMD 8-34-305.2	Wellhead Temperature	APCO Approved Device
BAAQMD 8-34-305.3	Wellhead Nitrogen	EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources
BAAQMD 8-34-305.4	Wellhead Oxygen	EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources

VIII. Test Methods

Table VIII

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD 8-34-412	Compliance Demonstration Test	EPA Reference Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography, Method 25, Determination of Total Gaseous Nonmethane Organic Emissions as Carbon, Method 25A, Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer, or Method 25C, Determination of Nonmethane Organic Compounds (NMOC) in MSW Landfill Gases
BAAQMD 8-40-116.2	Organic Content Limit for Small Volume Exemption	BAAQMD 8-40-601 and EPA Reference Methods 8015B and 8021B
BAAQMD 8-40-301	Limits on Uncontrolled Aeration of Contaminated Soil	BAAQMD 8-40-601 and EPA Reference Methods 8015B and 8021B; or EPA Reference Method 21
BAAQMD 9-1-301	Limitations on Ground Level Concentrations (SO_2)	Manual of Procedures, Volume VI, Part 1, Ground Level Monitoring for Hydrogen Sulfide and Sulfur Dioxide
BAAQMD 9-1-302	General Emission Limitation (SO_2)	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling, or ST-19B, Total Sulfur Oxides, Integrated Sample
BAAQMD 9-2-301	Limitations on Hydrogen Sulfide	Manual of Procedures, Volume VI, Part 1, Ground Level Monitoring for Hydrogen Sulfide and Sulfur Dioxide
BAAQMD 9-8-301.2	Fossil Derived Fuel Gas, NOx Limits for Lean Burn Engines	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-8-301.3	Fossil Derived Fuel Gas, CO Limits	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-8-302.1	Waste Derived Fuel Gas NOx Limits for Lean Burn Engines	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-8-302.3	Waste Derived Fuel Gas CO Limits	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling

VIII. Test Methods

Table VIII

Applicable Requirement	Description of Requirement	Acceptable Test Methods
40 CFR 60.8	Performance Tests	EPA Reference Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography, Method 25, Determination of Total Gaseous Nonmethane Organic Emissions as Carbon, Method 25A, Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer, or Method 25C, Determination of Nonmethane Organic Compounds (NMOC) in MSW Landfill Gases
40 CFR 60.752 (b)(2)(iii)(B)	NMOC Outlet Concentration and Destruction Efficiency Limits	EPA Reference Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography, Method 25, Determination of Total Gaseous Nonmethane Organic Emissions as Carbon, Method 25A, Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer, or Method 25C, Determination of Nonmethane Organic Compounds (NMOC) in MSW Landfill Gases
40 CFR 60.753(b)	Wellhead Pressure	APCO Approved Device
40 CFR 60.753(c)	Temperature, N_2, and O_2 concentration in wellhead gas	EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources
40 CFR 60.753(d)	Methane Limit at Landfill Surface	EPA Reference Method 21, Determination of Volatile Organic Compound Leaks
BAAQMD Condition # 4044		
Part 2	Ringelmann No. 0.5 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions
Part 7	Total Sulfur Content in Landfill Gas	APCO Approved Method
Part 10	Combustion Temperature	APCO Approved Continuous Temperature Monitor
Part 11	NOx Limit	Manual of Procedures, Volume IV, Oxides of Nitrogen, Continuous Sampling, and ST-14, Oxygen, Continuous Sampling; or EPA Reference Method 20
Part 12	CO Limit	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling, and ST-14, Oxygen, Continuous Sampling; or EPA Reference Method 10
Part 13	Flare Heat Input Limits	APCO approved calculation procedure described in BAAQMD Condition # 4044, Part 20
Part 18	Toxic Air Contaminants in Landfill Gas	GC Analysis for all compounds listed in AP-42 Chapter 2.4 (excluding acetone, carbon monoxide, and mercury)

VIII. Test Methods

Table VIII

Applicable Requirement	Description of Requirement	Acceptable Test Methods
Part 20	Handling Procedures for Soil Containing Volatile Organic Compounds	EPA Reference Methods 8015B, 8021B, or any method determined to be equivalent by the US EPA and approved by the APCO
Part 21	Total Carbon Emission Limit for Use or Disposal of Soil Containing VOCs	VOC Content as determined by EPA Reference Methods 8015B, 8021B (or any method determined to be equivalent by the US EPA and approved by the APCO) and converted to Total Carbon as defined in BAAQMD Regulation 8-2-202. Total Carbon Emissions determined by APCO approved equation described in BAAQMD Condition #4044, Part 19.c.
BAAQMD Condition # 19933		
Part 5	NO_x Limit	Manual of Procedures, Volume IV, Oxides of Nitrogen, Continuous Sampling, and ST-14, Oxygen, Continuous Sampling; or EPA Reference Method 20
Part 6	CO Limit	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling, and ST-14, Oxygen, Continuous Sampling; or EPA Reference Method 10
Part 7	NMOC Limit	Manual of Procedures, Volume IV, ST-14, Oxygen, Continuous Sampling, and either Manual of Procedures, Volume IV, ST-7, Organic Compounds OR EPA Reference Method 18, 25, 25A, or 25C
Part 10	Internal Combustion Engine Heat Input Limits	APCO approved calculation procedure described in BAAQMD Condition #19933, Part 9e
Part 11	Engine Exhaust Oxygen Concentration	APCO Approved Devices and Location
BAAQMD Condition # 24894		
Part 4	NO_x Limit	Manual of Procedures, Volume IV, Oxides of Nitrogen, Continuous Sampling, and ST-14, Oxygen, Continuous Sampling; or EPA Reference Method 20
Part 5	CO Limit	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling, and ST-14, Oxygen, Continuous Sampling; or EPA Reference Method 10

VIII. Test Methods

Table VIII

Applicable Requirement	Description of Requirement	Acceptable Test Methods
Part 6	NMOC Limit	Manual of Procedures, Volume IV, ST-14, Oxygen, Continuous Sampling, and either Manual of Procedures, Volume IV, ST-7, Organic Compounds OR EPA Reference Method 18, 25, 25A, or 25C

IX. REVISION HISTORY

Initial Title V Permit (Application 25840): February 27, 2001

Significant Revision (Applications 4970, 6532): March 29, 2004

- Change the Responsible Official from Edward J. Walker to David D. Knight.
- Update Mailing Address on the Title Page.
- Increase the permitted capacity of the Landfill S-1.
- Annotate the maximum design capacity of the landfill to clarify that final cover materials are excluded.
- Annotate the the daily waste acceptance rate limit to allow for temporary exceptions during LEA approved emergency situations.
- Update the number of gas collection wells.
- Add S-13 and S-14, Lean Burn Internal Combustion Engine Generator Sets.
- Revise and update standard text in permit.
- Update Generally Applicable Requirements.
- Update Federally Enforceable Requirements and remove future effective dates that have past in the Applicable Requirements for the Landfill S-1 (Tables IV-A and VII-A).
- Add the Applicable Requirements for Landfill Gas Flare A-2 to those for the Landfill in Table IV-A and delete the existing separate Applicable Requirements table for the Flare (Table IV-D).
- Transfer the requirements of Regulation 11, Rules 1, 3, and 14 from Tables IV-A, VII-A, and VIII to Table III, Generally Applicable Requirements.
- Add the future Applicable Requirements of the NESHAP for Municipal Solid Waste Landfills (40 CFR 63, Subpart AAAA) to Table IV-A.
- Group the Applicable Requirements for all of the Lean Burn Internal Combustion Engine Generator Sets into a single table (Table IV-B) and delete the existing Applicable Requirements table for IC Engines S-9 through S-12 (Table IV-C).
- Update Federally Enforceable Requirements and remove expired requirements and future effective dates that have past in the Applicable Requirements for the IC Engines (Tables IV-B and VII-B).
- Replaced the Regulation 8, Rule 34 “enclosed combustor” temperature monitoring requirements (Regulations 8-34-507 and 8-34-501.3) for the IC Engines S-9 through S-12 with Regulations 8-34-509 and 8-34-501.11 (key emission control system operating parameters).
- Modify the permit conditions for the Landfill S-1 (Condition #4044) to account for the East Canyon expansion and new well construction.
- Remove part 20 from Permit Condition #4044 and Tables IV-A, VII-A, and VIII, because Docket #2656 has been terminated.
- Add the new IC Engines S-13 and S-14 to Permit Condition #19933 (formerly #6117) and remove outdated text.
- Modify the emissions limits in Permit Condition #19933 as approved in Permit Application #6178.
- Add an exhaust gas temperature monitoring requirement for the IC engines to Permit Condition #19933 to outline how compliance with Regulation 8-34-509 “Key Emission Control System Operating Parameters” will be demonstrated.

IX. Revision History

- Extend the time for submitting annual source test results for the Flare and IC Engines to 60 days after the test date.
- Remove acetone, carbon monoxide and mercury from list of compounds to be included in the annual landfill gas characterization test.
- Remove wind speed monitoring requirement from Permit Condition #4044 part 17.p.
- Combine the Applicable Limits and Compliance Monitoring Requirements for the A-2 Flare with those for the S-1 Landfill in Table VII-A and delete the existing Flare requirements in Table VII-D.
- Combine the Applicable Limits and Compliance Monitoring Requirements for all Landfill Gas Fired IC Engines into Table VII-B and delete Table VII-C.
- Correct erroneous opacity monitoring requirements for the Flare A-2 in Table VII-A.
- Remove outdated SIP requirements from Table VIII, Test Methods.
- Add Section IX Revision History.
- Add terms to Section X Glossary.

Significant Revision (Application 9277): October 3, 2005

- Update the dates of adoption and approval of rules in Standard Condition 1.A
- Add "application shield" language to Standard Condition I.B.
- Add Standard Condition I.B.11, (which requires the responsible official to certify all documents submitted) to conform to the most recent version of Regulation 2, Rule 6.
- Add Standard Condition I.E.1, that requires the permit holder to provide any information, records, and reports requested or specified by the APCO. The condition was inadvertently omitted in the initial permit.
- Modify Standard Condition I.H to conform to the current standard.
- Add Standard Condition I.J to clarify that the capacity limits prescribed in Table II-A are enforceable limits.
- Update standard text to clarify that the capacity limits prescribed in Table II-A are enforceable limits.
- Update the number of gas collection wells and collectors to account for recent construction activities.
- Add language to Section III to clarify that this section contains requirements that may apply to temporary sources.
- Modify Section III to say that SIP standards are now found on EPA's website and are not included as part of the permit. The updated website address has been added.
- Update Table III to remove outdated SIP requirements and add rules and requirements as necessary to conform to the current District standard.
- Update the dates of adoption or approval of the rules and their "federal enforceability" status in Table III.
- Modify Section IV to state that SIP standards are now found on EPA's website and are not included as part of the permit. The updated website address has been added.
- Update Table IV-B to account for the changes to the IC engine parameter monitoring. Because the engines will be using alternative monitoring parameters, it was determined that most of 40 CFR 60.758(b) does not apply.

IX. Revision History

- Update the number of gas collection wells and collectors in Condition #4044, Part 4 to account for recent construction activities.
- Ammend Parts 9 and 11 of Condition #19933 to reflect the alternative IC engine monitoring standard requested by Sonoma County.
- Update standard text in Section VII for clarity and to state that Sections I-VI take precedence if there is a conflict with the VII Tables.
- Update Table VII-B to account for the changes to IC engine parameter monitoring.
- Update Table VIII to account for the proposed changes to parameter monitoring.
- Delete Section XI "State Implementation Plan". The address for EPA's website is now found in Sections III and IV.

Minor Revision (Application 9276): May 18, 2006

- Add Standard Condition I.B.12 to clarify that the permit holder is responsible for compliance, and certification of compliance, with all conditions of the permit, regardless whether it acts through employees, agents, contractors, or subcontractors.
- Raise the maximum heat input capacity for each of IC Engines S-4, S-5, S-6, S-7, S-9, S-10, S-11, S-12, S-13, and S-14 from 8.61 to 10.5 MMBTU/hr to correct systematic errors regarding fuel consumption that occurred during the permitting of the engines.
- Update the website address for SIP requirements.
- Delete SIP Regulation 1-523.5 "Maintenance and Calibration" will from Tables IV-A and IV-B. BAAQMD Regulation 1-523.5 is now SIP approved and federally enforceable.

Title V Renewal (Application 13090): April 23, 2007

- Update the applicable dates in Standard Conditions I.B, I.F, and I.G to reflect the renewal issuance date.
- Update Landfill Gas Collection System components in Table II-A to reflect recent construction activities.
- Modify Table III to reflect new and updated versions of Generally Applicable Requirements.
- Revise Table IV-A to reflect changes made to Permit Condition #4044, Parts 15 and 16.
- Remove all references to 40 CFR 60, Subpart WWW from the applicable requirements for the IC Engine/Generators in Table IV-B per the US EPA's determination that these requirements do not apply.
- Modify Permit Condition #4044, Part 4 to reflect recent gas collection sysyem construction activities.
- Modify Permit Condition #4044, Part 9 to clarify that the flare is to be used to combust excess landfill gas whenever the capacity of in service IC engines is exceeded, regardless of the number of engines operating.
- Update text of Permit Condition #4044, Part 14 relating to the timing of annual source testing to account for the fact that annual source testing of the landfill gas flare is now ongoing.
- Modify Permit Condition #4044, Part 15 to explicitly exclude carbon monoxide and mercury from annual landfill gas characterization testing because the District does not list it as a toxic air contaminant. Total sulfur will be added to the list of compounds evaluated during the annual gas characterization test.

IX. Revision History

- Delete Permit Condition #4044, Part 16. The sulfur testing requirement has been moved to Part 15.
- Modify Permit Condition #19933 to remove all references to 40 CFR 60 Subpart WWW per the US EPA's determination that these requirements do not apply.
- Modify Permit Condition #19933, Part 4 to remove the requirement for automatic valves on the landfill gas fired IC engines. There is no basis for this requirement.
- Update Permit Condition #19933, Part 11 to remove the 90 day delayed applicability of the condition because this time has now expired.
- Correct the total amount of waste and cover materials in Table VII-A to correspond to the permitted limit given in Condition #4044, Part 1.
- Update Table VII-A to change the landfill gas total sulfur content monitoring frequency from weekly to annual.
- Update Table VII-B to remove all references to 40 CFR 60, Subpart WWW based on the decision of the US EPA that these requirements to not apply to energy recovery devices being fired by "treated" landfill gas.
- Update Table VII-B to change the landfill gas total sulfur content monitoring frequency from weekly to annual.

Minor Revision (Application 13631): August 28, 2007

- Change the Responsible Official from David D. Knight to Phillip M. Demery.
- Replace existing Flare A-2 with new, larger capacity Flare A-3 in Tables II-B, IV-A, and VII-A.
- Make the following changes to permit conditions:
  <u>Condition #4044</u>
  - Replace all references to the existing Flare A-2 with A-3.
  - Add a NOx emission limit of 0.05 lb/MMBTU for A-3 (Part 11).
  - Add a CO emission limit of 0.20 lb/MMBTU for A-3 (Part 12).
  - Add an annual landfill gas throughput limit of 547,680 MMBTU/yr for A-3 (Part 13).
  - Add annual source test requirement for NOx and CO from the Flare A-3. (Part 17.e.).
  - Delete the previous landfill gas throughput limits for the Flare A-2 (previously Part 20).
  - Renumber conditions to account for the proposed changes.

  <u>Condition #19933</u>
  - Replace all references to the existing Flare A-2 with A-3.
- Update Table VII-A to add new NOx, CO, and Heat Input limits for the Flare A-3. Renumber permit condition references as necessary.
- Update Table VIII to add test methods for Flare A-3 NOx and CO limits. Renumber permit condition references as necessary.

Minor Revision (Application 14592): April 18, 2008

- Add Landfill Gas Compression Plant S-15 to Tables II-A, IV-A, and VII-A.
- Add Permit Condition #23087 (for S-15) to Section VI "Permit Conditions" and condition reference to Table IV-A.

IX. Revision History

- Modify Permit Condition #4044, Part 4 to include gas collection system changes pursuant to Application #16497.
- Replace Permit Condition #4044, Part 5 with a new part that includes the alternative wellhead standards and operating requirements pursuant to application #16582.
- Correct reporting period dates in "Standard Conditions", Section I-F.
- Correct inconsistencies relating to Permit Condition 4044 in Tables IV-A and VII-A.
- Correct minor errors in Permit Condition #4044.

Title V Renewal (Application 23816): May 20, 2013

- Incorporate source number changes into this permit that were implemented pursuant to the BAAQMD annual permit renewal process. The active landfill, Source S-1, was split into three sources (S-1, S-22, and S-23) that represent different processes and activities that occur at active landfills. The new source numbers were added to Tables II-A, IV-A, VII-A, IX-A and Condition # 4044.
- Clarify applicable waste acceptance limits.
- Update landfill gas collection system blower descriptions and well count.
- Add Biogas as a fuel for IC Engines S-13 and S-14.
- Correct and update regulatory references and amendment dates throughout the permit.
- Modify existing Permit Condition #19933 and add new Permit Condition #24894 pursuant to BAAQMD Application #22950.
- Add the emissions limits and monitoring requirements associated with Condition #24984 (biogas fuel) to Table VII-B for IC Engines S-13 and S-14.
- Add test methods for NOx, CO, and NMOC limits referenced by Condition #24894 in Table VIII.
- Update Glossary, Section X.

X. GLOSSARY

ACT
Federal Clean Air Act

APCO
Air Pollution Control Officer: Head of Bay Area Air Quality Management District

ARB
Air Resources Board

BAAQMD
Bay Area Air Quality Management District

BACT
Best Available Control Technology

Basis
The underlying authority which allows the District to impose requirements.

CAA
The federal Clean Air Act

CAAQS
California Ambient Air Quality Standards

CAPCOA
California Air Pollution Control Officers Association

CARB
California Air Resources Board (same as ARB)

CEQA
California Environmental Quality Act

CEM
A "continuous emission monitor" is a monitoring device that provides a continuous direct measurement of some pollutant (e.g. NOx concentration) in an exhaust stream.

CFR
The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

CH4 or CH_4
Methane

X. Glossary

CO
Carbon Monoxide

CO_2
Carbon Dioxide

Cumulative Increase
The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Used to determine whether threshold-based requirements are triggered.

District
The Bay Area Air Quality Management District

EG
Emission Guidelines

E6, E9, E12
Very large or very small number values are commonly expressed in a form called scientific notation, which consists of a decimal part multiplied by 10 raised to some power. For example, 4.53E6 equals (4.53) x (10^6) = (4.53) x (10x10x10x10x10x10) = 4,530,000. Scientific notation is used to express large or small numbers without writing out long strings of zeros.

EPA
The federal Environmental Protection Agency.

Excluded
Not subject to any District Regulations.

Federally Enforceable, FE
All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60, (NSPS), Part 61, (NESHAPS), Part 63 (HAP), and Part 72 (Permits Regulation, Acid Rain), and also including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

FP
Filterable Particulate as measured by BAAQMD Method ST-15, Particulate.

FR
Federal Register

X. Glossary

Grains
1/7000 of a pound

H2S or H_2S
Hydrogen Sulfide

HAP
Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by both 40 CFR Part 63, and District Regulation 2, Rule 5.

HHV
Higher Heating Value. The quantity of heat evolved as determined by a calorimeter where the combustion products are cooled to 60 °F and all water vapor is condensed to liquid.

H&SC
Health and Safety Code

LFG
Landfill gas

LHV
Lower Heating Value. Similar to the higher heating value (see HHV) except that the water produced by the combustion is not condensed but retained as vapor at 60 °F.

Major Facility
A facility with potential emissions of regulated air pollutants greater than or equal to 100 tons per year, greater than or equal to 10 tons per year of any single hazardous air pollutant, and/or greater than or equal to 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity as determined by the EPA administrator.

MAX or Max.
Maximum

MFR
Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Act and implemented by District Regulation 2, Rule 6.

MIN or Min.
Minimum

MOP
The District's Manual of Procedures.

X. Glossary

MSW
Municipal solid waste

MW
Molecular weight

N2 or N_2
Nitrogen

NA
Not Applicable

NAAQS
National Ambient Air Quality Standards

NESHAPS
National Emission Standards for Hazardous Air Pollutants. Contained in 40 CFR Part 61.

NMHC
Non-methane Hydrocarbons (same as NMOC).

NMOC
Non-methane Organic Compounds (same as NMHC).

NO2
Nitrogen Dioxide

NOx or NO_x
Oxides of nitrogen.

NSPS
Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Act, and implemented by both 40 CFR Part 60 and District Regulation 10.

NSR
New Source Review. A federal program for preconstruction review and permitting of new and modified sources of air pollutants for which the District is classified "non-attainment". Mandated by Title I of the Clean Air Act and implemented by 40 CFR Parts 51 and 52 as well as District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

O2 or O_2
Oxygen

X. Glossary

Offset Requirement
A New Source Review requirement to provide federally enforceable emission offsets at a specified ratio for the emissions from a new or modified source and any pre-existing cumulative increase minus any onsite contemporaneous emission reduction credits. Applies to emissions of POC, NOx, PM10, and SO2.

Phase II Acid Rain Facility
A facility that generates electricity for sale through fossil-fuel combustion and by virtue of certain other characteristics (defined in Regulation 2, Rule 6) is subject to Titles IV and V of the Clean Air Act.

POC
Precursor Organic Compounds

PM
Total Particulate Matter

PM10 or PM_{10}
Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

PSD
Prevention of Significant Deterioration. A federal program for permitting new and modified sources of air pollutants for which the District is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

RMP
Risk Management Plan

S
Sulfur

SIP
State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the Federal Clean Air Act.

SO2 or SO_2
Sulfur dioxide

SSM
Startup, Shutdown, or Malfunction

X. Glossary

SSM Plan
A plan, which states the procedures that will be followed during a startup, shutdown, or malfunction, that is prepared in accordance with the general NESHAP provisions (40 CFR Part 63, Subpart A) and maintained on site at the facility.

TAC
Toxic Air Contaminant

TBACT
Best Available Control Technology for Toxics

THC
Total Hydrocarbons include all NMHC plus methane (same as TOC).

Title V
Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

TOC
Total Organic Compounds include all NMOC plus methane (same as THC).

TPH
Total Petroleum Hydrocarbons

TRMP
Toxic Risk Management Policy.

TRS
Total Reduced Sulfur, which is a measure of the amount of sulfur-containing compounds in a gas stream, typically a fuel gas stream, including, but not limited to, hydrogen sulfide. The TRS content of a fuel gas determines the concentration of SO2 that will be present in the combusted fuel gas, since sulfur compounds are converted to SO2 by the combustion process.

TSP
Total Suspended Particulate

TVP
True Vapor Pressure

VOC
Volatile Organic Compounds

X. Glossary

Symbols:

<	=	less than
>	=	greater than
≤	=	less than or equal to
≥	=	greater than or equal to

Units of Measure:

atm	=	atmospheres
bhp	=	brake-horsepower
btu	=	British Thermal Unit
BTU	=	British Thermal Unit
°C	=	degrees Centigrade
cfm	=	cubic feet per minute
dscf	=	dry standard cubic feet
°F	=	degrees Fahrenheit
ft^3	=	cubic feet
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
gr	=	grains
hp	=	horsepower
hr	=	hour
lb	=	pound
lbmol	=	pound-mole
in	=	inches
m^2	=	square meter
m^3	=	cubic meters
min	=	minute
mm	=	millimeter
MM	=	million
MMBTU	=	million BTU
MW	=	megawatts
MMcf	=	million cubic feet
Mg	=	mega grams
ppb	=	parts per billion
ppbv	=	parts per billion, by volume
ppm	=	parts per million
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge

X. Glossary

scf	=	standard cubic feet
scfm	=	standard cubic feet per minute
sdcf	=	standard dry cubic feet
sdcfm	=	standard dry cubic feet per minute
yd	=	yard
yd^3	=	cubic yards
yr	=	year