Bay Area Air Quality Management District

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

~~Final~~Proposed

MAJOR FACILITY REVIEW PERMIT

Issued To:
Shoreline Amphitheatre
Facility #A2561

Facility Address:
One Amphitheatre Parkway
Mountain View, CA 94043

Mailing Address:
One Amphitheatre Parkway
Mountain View, CA 94043

Responsible Official	**Facility Contact**
~~David M. Mayeri, C.O.O.~~ Matt Prieshoff, Executive Director	~~Mike Kelly, Director of Operations~~Aaron Hawkins, Operations Manager
~~415-371-5500~~	650-~~967~~623-~~3000~~3042

Type of Facility: Landfill
Primary SIC: 4953
Product: Closed Solid Waste Landfill

BAAQMD ~~Permit~~ Engineering Division Contact:
Carol S. Allen

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

~~Signed by William C. Norton~~ _____ ~~October 6, 2003~~
~~William C. Norton~~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 on ~~5/2/01~~7/9/08);

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 ~~8/1/01~~7/19/06);

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 ~~5/17/00~~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 ~~5/17/00~~12/21/04);

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

BAAQMD Regulation 2, Rule 5 - Permits, New Source Review of Toxic Air Contaminants
(as adopted by the District Board on 6/16/05); ~~and~~

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

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

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

1. This Major Facility Review Permit was issued on ~~June 13, 2003~~ [enter issuance date] and expires on ~~May 31, 2008~~ [enter 5th anniversary of issuance date]. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than ~~November 30, 2007~~ [enter date 6 months prior to permit expiration date], and no earlier than ~~May 31, 2007~~ [enter date 12 months prior to expiration date]. **If a complete application for renewal has not been submitted in accordance with this deadline, the facility may not operate after [enter permit expiration date]** ~~May 31, 2008~~**.** If the permit renewal has not been issued by [enter permit expiration date], 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

I. Standard Conditions

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)

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 the filing 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, or 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 that 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's 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 or the potential to emit 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

I. Standard Conditions

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)

D. Inspection and Entry

Access to Facility: The permit holder shall provide reasonable access to the facility and equipment that 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 of creation 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. The first reporting period for this permit shall be June 13, 2003 to November 30, 2003. The report shall be submitted by December 31, 2003. Subsequent reports shall be for the following periods: December 1st through May 31st and June 1st through November 30th, 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

I. Standard Conditions

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 June 1st ~~to~~ through May 31st. The certification shall be submitted by June 30th 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 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 shall 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

I. Standard Conditions

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

1. 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

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	Landfill (includes a small area of the Vista Landfill) Landfill Gas Collection System	Closed Solid Waste Disposal Site Active		Max. Design Capacity = 542,000 yd^3 (414,400 m^3); Max. Cumulative Waste In Place = 366,000 tons; 35 horizontal collectors 26 vertical wells
S-3	Diesel Engine for Emergency Standby Generator	Onan	0615T2A	484 bhp, 930 in^3, 3.151 MM BTU/hour, 23.0 gallons/hour of diesel oil

Table II B - Abatement Devices

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
A-1	Carbon Adsorption System (operating alone)	S-1	BAAQMD 8-34-301.4b; and BAAQMD Condition # 876, Part 13, see also Table IV-A	Replace carbon upon detection of 108 ppmv of NMOC, as CH_4, at 3% O_2, dry, see also Table VII-A	Either 98% removal of NMOC or < 120 ppmv of NMOC, as CH_4, at 3% O_2, dry
A-2	Landfill Gas Flare, 3.6 MM BTU per hour (operating alone or downstream of A-1)	S-1	BAAQMD 8-34-301.3, see also Table IV-A	Minimum combustion zone temperature of: (a) ~~1450~~ 1400 °F (when A-2 is operating alone) or, (b) 1200 °F (when A-2 is downstream of A-1), see also Table VII-A	Either 98% destruction of NMOC or < 30 ppmv of NMOC, as CH_4, at 3% O_2, dry

II. Equipment

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 will 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 SIP requirements is on EPA Region 9's website. The address is ~~included at the end of this permit.~~: 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 rules and the versions of the rules 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 (~~5/2/01~~7/9/08)	N
SIP Regulation 1	General Provisions and Definitions (6/28/99)	Y
BAAQMD Regulation 2, Rule 1	Permits – General Requirements (~~8/1/01~~7/19/06)	N
SIP Regulation 2, Rule 1	Permits – General Requirements (1/26/99)	Y
BAAQMD 2-1-429	Federal Emissions Statement (12/21/04)	N

III. Generally Applicable Requirements

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
SIP 2-1-429	Federal Emissions Statement (4/3/95)	Y
BAAQMD Regulation 2, Rule 5	Permits – New Source Review of Toxic Air Contaminants (6/15/05)	N
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 ~~and Visible Emissions~~ - General Requirements (~~12/19/90~~12/5/07)	~~Y~~N
SIP Regulation 6	Particulate Matter (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 (~~6/15/94~~7/20/05)	~~Y~~N
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~~Y
~~SIP Regulation 8, Rule 3~~	~~Organic Compounds - Architectural Coatings (2/18/98)~~	~~Y~~
BAAQMD Regulation 8, Rule 4	Organic ~~c~~Compounds – General Solvent and Surface Coating Operations (10/16/02)	~~N~~Y
~~SIP Regulation 8, Rule 4~~	~~Organic compounds - General Solvent and Surface Coating Operations (12/23/97)~~	~~Y~~
BAAQMD Regulation 8, Rule 15	Organic Compounds – Emulsified and Liquid Asphalts (6/1/94)	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

III. Generally Applicable Requirements

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/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 (10/6/99)	N
BAAQMD Regulation 11, Rule 2	Hazardous Pollutants – Asbestos Demolition, Renovation and Manufacturing (10/7/98)	~~Y~~N
BAAQMD Regulation 11, Rule 14	Hazardous Pollutants – Asbestos Containing Serpentine (7/17/91)	~~Y~~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 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 (10/18/07)	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 (9/12/07)	N
40 CFR Part 61, Subpart A	National Emission Standards for Hazardous Air Pollutants – General Provisions (5/16/07)	Y
40 CFR Part 61, Subpart M	National Emission Standards for Hazardous Air Pollutants – National Emission Standard for Asbestos (6/19/95)	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 is on EPA Region 9's website. The address is: ~~included at the end of this of this permit.~~ 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 LANDFILL AND GAS COLLECTION SYSTEM,
A-1 CARBON ADSORPTION SYSTEM, AND
A-2 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 (~~5/2/01~~7/19/06)**		
1-523	Parametric Monitoring and Recordkeeping Procedures	N	
1-523.1	Reporting requirement for periods of inoperation > 24 hours	Y	
1-523.2	Limit on duration of inoperation	Y	
1-523.3	Reporting requirement for violations of any applicable limits	N	
1-523.4	Records of inoperation, tests, calibrations, adjustments, & maintenance	Y	
1-523.5	Maintenance and calibration	N	

IV. Source Specific Applicable Requirements

Table IV – A
Source-Specific Applicable Requirements
S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-1 CARBON ADSORPTION SYSTEM, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
SIP Regulation 1	**General Provisions and Definitions (6/28/99)**		
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
1-523.3	Reports of Violations	Y	
1-523.5	Maintenance and Calibration	Y	
BAAQMD Regulation 6, Rule 1	**Particulate Matter – General Requirements (12/5/07)**		
6-1-301	Ringelmann No. 1 Limitation (applies to A-2 Landfill Gas Flare only)	N	
6-1-305	Visible Particles (applies to A-2 Landfill Gas Flare only)	N	
6-1-310	Particle Weight Limitation (applies to A-2 Landfill Gas Flare only)	N	
6-1-401	Appearance of Emissions (applies to A-2 Landfill Gas Flare only)	N	
~~**BAAQMD**~~**SIP Regulation 6**	**Particulate Matter and Visible Emissions (~~12/19/1990~~**9/4/98**)**		
6-301	Ringelmann No. 1 Limitation (applies to A-2 Landfill Gas Flare only)	Y	
6-305	Visible Particles (applies to A-2 Landfill Gas Flare only)	Y	
6-310	Particle Weight Limitation (applies to A-2 Landfill Gas Flare only)	Y	
6-401	Appearance of Emissions (applies to A-2 Landfill Gas Flare only)	Y	
BAAQMD Regulation 8, Rule 34	**Organic Compounds – Solid Waste Disposal Sites (~~10/6/1999~~6/15/05)**		
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	
8-34-117	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	

IV. Source Specific Applicable Requirements

Table IV – A
Source-Specific Applicable Requirements
S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-1 CARBON ADSORPTION SYSTEM, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
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 (applies to A-2 Landfill Gas Flare only)	Y	
8-34-301.4	Limits for Other Emission Control Systems (applies to A-1 Carbon Adsorption System only)	Y	
8-34-303	Landfill Surface Requirements	Y	
8-34-304	Gas Collection System Installation Requirements	Y	
8-34-304.1	Based on Waste Age For Inactive or Closed Areas	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~~	
8-34-404	Less Than Continuous Operation Petition (applies to individual gas collection system components)	Y	Expires 6/1/09
8-34-405	Design Capacity Reports	Y	
8-34-408	Collection and Control System Design Plans	Y	
8-34-408.2	Sites With Existing Collection and Control Systems	Y	

IV. Source Specific Applicable Requirements

Table IV – A
Source-Specific Applicable Requirements
S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-1 CARBON ADSORPTION SYSTEM, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
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	
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 (applies to A-2 Landfill Gas Flare only)	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	

IV. Source Specific Applicable Requirements

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S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-1 CARBON ADSORPTION SYSTEM, AND A-2 LANDFILL GAS FLARE

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	
8-34-501.11	Records of Key Emission Control System Operating Parameters (applies to A-1 Carbon Adsorption System only)	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	
8-34-506.1	Criteria for Annual Monitoring: Closed Landfill	Y	
8-34-506.2	Criteria for Annual Monitoring: No Excess in 3 Quarters	Y	
8-34-506.3	Criteria for Annual Monitoring: Revert to Quarterly Monitoring if an Excess is Detected	Y	
8-34-507	Continuous Temperature Monitor and Recorder (applies to A-2 Landfill Gas Flare only)	Y	
8-34-508	Gas Flow Meter	Y	
8-34-509	Key Emission Control System Operating Parameter(s) (applies to A-1 Carbon Adsorption System only)	Y	
8-34-510	Cover Integrity Monitoring	Y	
BAAQMD Regulation 9, Rule 1	**Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/~~19~~95)**		
9-1-301	Limitations on Ground Level Concentrations (applies to A-2 Landfill Gas Flare only)	Y	
9-1-302	General Emission Limitations (applies to A-2 Landfill Gas Flare only)	Y	
BAAQMD Regulation 9, Rule 2	**Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/~~19~~99)**		
9-2-301	Limitations on Hydrogen Sulfide	N	
40 CFR Part 60, Subpart A	**Standards of Performance for New Stationary Sources – General Provisions (~~5/4/19986~~/13/07)**		

IV. Source Specific Applicable Requirements

Table IV – A
Source-Specific Applicable Requirements
S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-1 CARBON ADSORPTION SYSTEM, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
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	
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 Cc	**Standards of Performance for New Stationary Sources – Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills (2/24/~~19~~99)**		
60.36c(a)	Collection and Control Systems in Compliance by 30 months after Initial NMOC Emission Rate Report Shows NMOC Emissions ≥ 50 MG/year	Y	
40 CFR Part 62, Subpart F	**Approval and Promulgation of State Plans for Designated Facilities and Pollutants: California (~~9/20/2001~~6/9/03)**		
62.1100	Identification of Plan	Y	
62.1115	Identification of Sources	Y	

IV. Source Specific Applicable Requirements

Table IV – A
Source-Specific Applicable Requirements
S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-1 CARBON ADSORPTION SYSTEM, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
40 CFR Part 63, Subpart A	**National Emission Standards for Hazardous Air Pollutants: General Provisions (~~3/16/1994~~4/20/06)**		
63.4	Prohibited activities and circumvention	Y	~~1/16/04~~
63.5(b)	Requirements for existing, newly constructed, and reconstructed sources	Y	~~1/16/04~~
63.6(e)	Operation and maintenance requirements and SSM Plan	Y	~~1/16/04~~
63.6(f)	Compliance with non-opacity emission standards	Y	~~1/16/04~~
63.10(b)(2)(i-v)	Records for startup, shutdown, malfunction, and maintenance	Y	~~1/16/04~~
63.10(d)(5)	Startup, Shutdown, and Malfunction (SSM) Reports	Y	~~1/16/04~~
40 CFR Part 63, Subpart AAAA	**National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills (~~1/16/2003~~4/20/06)**		
63.1945	When do I have to comply with this subpart?	Y	
63.1945(b)	Compliance date for existing affected landfills	Y	~~1/16/04~~
63.1955	What requirements must I meet?	Y	~~1/16/04~~
63.1955(a)(2)	Comply with State Plan that implements 40 CFR Part 60, Subpart Cc	Y	~~1/16/04~~
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	~~1/16/04~~
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	~~1/16/04~~
63.1960	How is compliance determined?	Y	~~1/16/04~~
63.1965	What is a deviation?	Y	~~1/16/04~~
63.1975	How do I calculate the 3-hour block average used to demonstrate compliance?	Y	~~1/16/04~~
63.1980	What records and reports must I keep and submit?	Y	~~1/16/04~~

IV. Source Specific Applicable Requirements

Table IV – A
Source-Specific Applicable Requirements
S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-1 CARBON ADSORPTION SYSTEM, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
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	~~1/16/04~~
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	~~1/16/04~~
BAAQMD Condition # 876			
Part 1	Design capacity and waste acceptance rate limits (Regulation 2-1-301)	Y	
Part 2	Landfill gas collection system description (Regulations 2-1-301, ~~8-34-301.1,~~ 8-34-303, ~~8-34-304, and 8-34-305~~ and either 8-34-301.1 or 8-34-404)	Y	
Part 3	Landfill gas collection system operating requirements (Regulations 2-1-403, 8-34-301.1, 8-34-305, 8-34-404, 8-34-414, 8-34-501, and 8-34-505)	Y	
Part 4	Landfill gas control system requirements (Regulation 8-34-301)	Y	
Part 5	Heat input limits for A-2 Landfill Gas Flare (Cumulative Increase and Regulation 2-1-301)	Y	
Part 6	NOx emission limit for A-2 Landfill Gas Flare (Cumulative Increase)	Y	
Part 7	CO emission limit for A-2 Landfill Gas Flare (Cumulative Increase)	Y	
Part 8	Combustion zone temperature limits for A-2 Landfill Gas Flare (Regulations 8-34-301.3 and 8-34-301.4)	Y	
Part 9	Continuous temperature monitoring and recording requirements for A-2 Landfill Gas Flare (Regulation 8-34-507)	Y	
Part 10	Alarm and equipment requirements for A-2 Landfill Gas Flare (Regulation 8-34-301)	Y	
Part 11	Flow meter requirement for A-2 Landfill Gas Flare (Cumulative Increase and Regulations 8-34-301, 8-34-501.10, and 8-34-508)	Y	

IV. Source Specific Applicable Requirements

Table IV – A
Source-Specific Applicable Requirements
S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-1 CARBON ADSORPTION SYSTEM, AND A-2 LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
Part 12	Operating configuration and carbon requirements for A-1 Carbon Adsorption System (Regulation 2-1-301)	Y	
Part 13	Carbon replacement trigger level for A-1 Carbon Adsorption System (Regulation 8-34-301.4)	Y	
Part 14	Monitoring requirements for A-1 Carbon Adsorption System (Regulations 8-34-301.4 and 8-34-509)	Y	
Part 15	Landfill gas sulfur content limit ~~and monitoring requirements~~ (Regulation 9-1-302)	Y	
Part 16	Annual source test (Cumulative Increase and Regulations 8-34-301.3, 8-34-412, and 9-1-302)	Y	
Part 17	Annual landfill gas characterization test (AB-2588 Air Toxics Hot Spots Act and Regulations 8-34-412 and 9-1-302)	Y	
Part 18	Record keeping requirements (Cumulative Increase and Regulations 2-1-301, 2-6-501, 8-34-301, 8-34-303, 8-34-305, 8-34-412, 8-34-414, 8-34-415, 8-34-501, 8-34-503, 8-34-505, 8-34-506, and 9-1-302)	Y	
Part 19	Reporting periods and report submittal due dates for the Regulation 8, Rule 34 report (Regulation 8-34-411 and 40 CFR 63.1980(a))	Y	

IV. Source Specific Applicable Requirements

Table IV – B
Source-Specific Applicable Requirements
S-3 DIESEL ENGINE FOR EMERGENCY STANDBY GENERATOR

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)**		
6-1-303	Ringelmann No. 2 Limitation	N	
6-1-303.1	For Internal Combustion Engines Less Than 1500 in^3 Displacement, or For Standby Engines	N	
6-1-305	Visible Particles	N	
6-1-310	Particulate Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
~~BAAQMD~~SIP Regulation 6	**Particulate Matter and Visible Emissions (~~12/19/90~~9/4/98)**		
6-303	Ringelmann No. 2 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Regulation 9, Rule 1	**Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)**		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-304	Fuel Burning (Liquid and Solid Fuels)	Y	
BAAQMD Regulation 9, Rule 8	**Inorganic Gaseous Pollutants – Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines (~~8/1/2001~~7/25/07)**		
9-8-110	Exemptions	N	
9-8-110.1	For < 250 hp Engines	N	Expires 1/1/12
9-8-110.3	For Liquid Fuel Fired Engines	N	Expires 1/1/12
9-8-110.5	For Emergency Standby Engines	N	
9-8-330	Emergency Standby Engines, Hours of Operation	N	
9-8-330.1	For Emergency Use	N	
9-8-330.2	For Reliability-Related Activities	N	Expires 1/1/12

IV. Source Specific Applicable Requirements

Table IV – B
Source-Specific Applicable Requirements
S-3 DIESEL ENGINE FOR EMERGENCY STANDBY GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
9-8-330.3	For Reliability-Related Activities	N	1/1/12
9-8-502	Recordkeeping	N	
9-8-502.1	For Exempt Engines		
9-8-530	Emergency Standby and Low Usage Engines, Monitoring and Recordkeeping	N	
9-8-530.1	Hours of Operation (total)	N	
9-8-530.2	Hours of Operation (emergency)	N	
9-8-530.3	Nature of Each Emergency Condition	N	
CCR, Title 17, Section 93115	**Airborne Toxic Control Measure for Stationary Compression Ignition Engines (10/18/07)**		
§ 93115.5	Fuel and Fuel Additive Requirements for New and In-Use Stationary CI Engines That Have a Rated Brake Horsepower of Greater Than 50 (> 50 bhp)	N	
§ 93115.5(b)	For In-Use Emergency Standby CI Engines	N	
§ 93115.6	Emergency Standby Diesel-Fueled CI Engine (> 50 bhp) Operating Requirements and Emission Standards	N	
§ 93115.6(b)	For In-Use Emergency Standby Diesel-Fueled CI Engines	N	
§ 93115.6(b)(1)	Operating Restrictions for Rotating Outages	N	
§ 93115.6(b)(3)	Emission Standards and Operating Requirements	N	
§ 93115.6 (b)(3)(A)	Diesel PM Standard and Hours of Operating Limitations	N	
§ 93115.6 (b)(3)(A)(1)	General Requirements	N	
§ 93115.6 (b)(3)(A)(1)(a)	For Engines That Emit Greater Than 0.40 g/bhp-hr	N	
§ 93115.10	Record Keeping, Reporting, and Monitoring Requirements	N	
§ 93115.10(e)	Monitoring Equipment	N	
§ 93115.10 (e)(1)	Non-Resettable Hour Meter	N	
§ 93115.10(g)	Reporting Requirements for Emergency Standby Engines	N	
§ 93115.10 (g)(1)	Records and Monthly Summary	N	
§ 93115.10 (g)(2)	Records Retention and Availability	N	

IV. Source Specific Applicable Requirements

Table IV – B
Source-Specific Applicable Requirements
S-3 DIESEL ENGINE FOR EMERGENCY STANDBY GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Condition # 19912			
~~Part 1~~	~~Hours of Operation Limitations (Regulation 9-8-330)~~	~~N~~	
~~Part 2~~	~~Definition of Emergency Conditions (Regulation 9-8-231)~~	~~N~~	
~~Part 3~~	~~Definition of Reliability-Related Activities (Regulation 9-8-232)~~	~~N~~	
~~Part 4~~	~~Meter Requirements (Regulation 9-8-530)~~	~~N~~	
~~Part 5~~	~~Records (Regulations 9-1-304, 9-8-530)~~	~~Y~~	
Part 1	Operating Time Limitation for Reliability-Related Testing (CCR Title 17, Section 93115.6(b)(3)(A)(1)(a))	N	
Part 2	Operating Restrictions (CCR Title 17, Section 93115.6(b)(1 and 3) and Regulation 9-8-330)	N	
Part 3	Hour Meter Monitoring Requirement (CCR Title 17, Section 93115.10(e)(1) and Regulation 9-8-530)	N	
Part 4	Records (CCR Title 17, Section 93115.10(e and g) and Regulations 2-6-501, 9-1-304, and 9-8-530)	Y	

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 # 876
FOR: S-1, LANDFILL AND GAS COLLECTION SYSTEM;
~~FOR:~~ A-1, CARBON ADSORPTION SYSTEM; AND
~~FOR:~~ A-2, LANDFILL GAS FLARE;

1. The S-1 Landfill is closed. The Permit Holder shall apply for and receive a Change of Permit Conditions before accepting any solid waste for disposal at S-1. The total cumulative amount of all wastes placed in the landfill area controlled by the Permit Holder shall not exceed 366,000 tons. The maximum design capacity of the landfill (total volume of all wastes and cover materials placed in the landfill area controlled by the Permit Holder, excluding final cover) shall not exceed 542,000 cubic yards. (Basis: Regulation 2-1-301)

2. The Permit Holder shall apply for and receive ~~an Authority to Construct~~ a Change of Conditions before ~~modifying~~ altering the landfill gas collection system described in Part 2a below. Except for wells that are temporarily disconnected from vacuum in accordance with Part 3, ~~I~~increasing or decreasing the number of wells or collectors, changing the length of collectors, or changing the locations of wells or collectors are all considered to be ~~modifications~~ alterations that are subject to ~~the Authority to Construct~~ this requirement. (Basis: Regulations 2-1-301, 8-34-303, and either 8-34-301.1 or 8-34-404)
   a. The Permit Holder has been issued a Permit to Operate for a landfill gas collection system consisting of 61 collection components (35 horizontal collectors and 26 vertical wells). Well and collector locations, depths, and lengths are as described in detail in Permit Application #2486.

~~(Basis: Regulations 2-1-301, 8-34-301.1, 8-34-303, 8-34-304, and 8-34-305)~~

3. The landfill gas collection system components described ~~above~~ in Part 2a above shall be operated ~~continuously. Components shall not be disconnected or removed and isolation or adjustment valves shall not be closed, without prior written authorization from the APCO, unless the Permit Holder complies with all applicable provisions of Regulation 8, Rule 34, Sections 113, 117, and/or 118.~~ ~~(Basis: Regulation 8-34-301.1)~~ in accordance with the following requirements, unless the Permit Holder is complying with all applicable provisions of Regulations 8-34-113 or 8-34-117:

VI. Permit Conditions

Condition # 876

FOR: S-1, LANDFILL AND GAS COLLECTION SYSTEM; A-1, CARBON ADSORPTION SYSTEM; AND A-2, LANDFILL GAS FLARE;

a. The APCO has approved a less than continuous operation petition for this landfill gas collection system. This approval is effective from June 1, 2006 through June 1, 2009. Each landfill gas collection system component listed in Part 2a shall be operated (connected to vacuum) and not operated (disconnected from vacuum) in accordance with the provisions in Part 3(a)(i-iv). (Basis: Regulations 8-34-301.1 and 8-34-404)

   i. At least 20 landfill gas collection system components shall be operating continuously at any one time.

   ii. Whenever a gas collection system component has a wellhead oxygen concentration in excess of 15% O_2 by volume, the component may be temporarily disconnected from the vacuum system, provided the operator maintains compliance with Part 3a(i).

   iii. Non-operational gas collection system components shall be reconnected to the vacuum, if the methane concentration in the wellhead is greater than 20% CH_4 by volume.

   iv. Any non-operational gas collection system components may be reconnected to the vacuum system at any time.

b. During any time that a well is operating, the well shall comply with the requirements of Regulations 8-34-305, 305.1, and 305.2. The gauge pressure and landfill gas temperature requirements of Regulations 8-34-305.1 and 305.2 do not apply to wells that have been disconnected from vacuum in accordance with subpart 3a(ii). (Basis: Regulations 8-34-305, 8-34-305.1, and 8-34-305.2)

c. During any time that a well is operating, the well shall comply with the provisions listed below instead of the nitrogen or oxygen concentration limits in Regulations 8-34-305.3 or 305.4. The provisions listed below do not apply to wells that have been disconnected from vacuum in accordance with subpart 3a(ii). (Basis: Regulation 2-1-403)

   i. The oxygen concentration in each operational wellhead shall not exceed 15% O_2 by volume, except under the circumstances described in subparts 3c(ii or iii) below.

   ii. The oxygen concentration limit in subpart 3c(i) shall not apply to wells that contain less than 20% methane by volume, if the well is being operated in order to minimize public exposure to landfill gas during an event at Shoreline Amphitheatre, or if the component must be operated to ensure compliance with subpart 3a(i).

VI. Permit Conditions

Condition # 876

FOR: S-1, LANDFILL AND GAS COLLECTION SYSTEM; A-1, CARBON ADSORPTION SYSTEM; AND A-2, LANDFILL GAS FLARE;

iii. An excess of the subpart 3c(i) oxygen concentration limit shall not be deemed a violation if the operator has discovered the excess and complied with all requirements of the Regulation 8-34-414 wellhead repair schedule. While the Part 3a less than continuous operation petition is effective, temporarily disconnecting the component from the vacuum system is an acceptable corrective action pursuant to Regulation 8-34-414 for components that have more than 15% O_2 by volume at the wellhead.

d. The Permit Holder shall monitor all wellheads (both operational and non-operational wells) on a monthly basis in accordance with Regulations 8-34-404, 8-34-505, 8-34-604, and 8-34-608. (Basis: Regulations 8-34-404 and 8-34-505)

e. In accordance with Regulations 8-34-34-501.4, 8-34-501.5, 8-34-501.9, and 8-34-414, the Permit Holder shall record the following data in a District approved log. All records shall be retained on site or made available to District staff upon request for at least five years from the date of entry. (Basis: Regulations 8-34-414 and 8-34-501)

i. For each well disconnection event and each well reconnection event, record the well ID, the type of event (disconnection or reconnection), reason for the change in operational status, the date and time that the well became operational or non-operational, and the total number of operational wells.

ii. For each wellhead monitoring date, record the well ID, gauge pressure, temperature, methane and oxygen concentrations, and identify any deviations from an applicable wellhead limit.

iii. For all wellhead repair actions, describe all repair actions that were conducted or attempted, list the dates that repairs were initiated and completed, identify all re-monitoring dates and results, and list the compliance restoration date.

VI. Permit Conditions

Condition # 876

FOR: S-1, LANDFILL AND GAS COLLECTION SYSTEM; A-1, CARBON ADSORPTION SYSTEM; AND A-2, LANDFILL GAS FLARE;

4. All collected landfill gas shall be vented to the A-2 Landfill Gas Flare, which shall be properly operated and maintained. In the event of a shutdown of the A-2 Landfill Gas Flare, landfill gas shall be automatically diverted to the A-1 Carbon Adsorption System. Landfill gas flow shall be returned to the flare as soon as A-2 is operating properly. Raw or untreated landfill gas shall not be vented to the atmosphere, except for unavoidable landfill gas emissions that occur during collection system installation, maintenance, or repair (which is performed in compliance with Regulation 8, Rule 34, Sections 113, 117, and/or 118) and 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)

5. The heat input to the A-2 Landfill Gas Flare shall not exceed 86.4 million BTU per day nor 31,536 million BTU per year. (Basis: Cumulative Increase and Regulation 2-1-301)

6. Nitrogen oxide (NO_x) emissions from the A-2 Landfill Gas Flare shall not exceed 30 ppmv of NO_x, corrected to 15% oxygen, dry basis. (Basis: Cumulative Increase)

7. Carbon monoxide (CO) emissions from the A-2 Landfill Gas Flare shall not exceed 83 ppmv of CO, corrected to 15% oxygen, dry basis. (Basis: Cumulative Increase)

8. The Permit Holder for the A-2 Landfill Gas Flare shall comply with either subpart a or subpart b below. (Basis: Regulations 8-34-301.3 and 8-34-301.4)
   a. The combustion zone temperature of A-2 shall be maintained at a minimum of ~~1450~~ 1400 degrees F, averaged over any 3-hour period, during all times that landfill gas is vented directly to the A-2 Landfill Gas Flare. If a source test demonstrates compliance with all applicable requirements at a different temperature, the APCO may revise the minimum combustion zone temperature limit, in accordance with the procedures identified in Regulation 2-6-414 or 2-6-415, based on the following criteria. The minimum combustion zone temperature for a flare shall be equal to the average combustion zone temperature measured during the most recent complying source test minus 50 degrees F, provided that the minimum combustion zone temperature shall not be less than 1400 degrees F.

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FOR: S-1, LANDFILL AND GAS COLLECTION SYSTEM; A-1, CARBON ADSORPTION SYSTEM; AND A-2, LANDFILL GAS FLARE;

b. If the flare combustion zone temperature cannot be maintained at the minimum temperature required in part 8a above, the Permit Holder may demonstrate compliance with Regulations 8-34-301.3 and 8-34-301.4 by using the A-1 Carbon Adsorption System to pretreat the landfill gas and then venting the treated landfill gas to the A-2 Landfill Gas Flare to complete the NMOC destruction, provided that:

(i) the Permit Holder complies with all operating, monitoring, and record keeping requirements for the A-1 Carbon Adsorption System (Parts 12, 13, 14, 18b, 18d, and 18g) and

(ii) the combustion zone temperature of A-2 is maintained at a minimum of 1200 degrees F, averaged over any 3-hour period, during all times that landfill gas is vented to A-1 followed by A-2.

~~(Basis: Regulations 8-34-301.3 and 8-34-301.4)~~

9. The A-2 Landfill Gas Flare shall be equipped with a continuous temperature monitor and recorder. (Basis: Regulation 8-34-507)

10. The A-2 Landfill Gas Flare shall be equipped with both local and remote alarm systems and shall be capable of restarting automatically after a power failure. (Basis: Regulation 8-34-301)

11. The A-2 Landfill Gas Flare shall be equipped with a gas flow meter and recorder meeting the requirements of Regulation 8-34-508. (Basis: Cumulative Increase and Regulations 8-34-301, 8-34-501.10, and 8-34-508)

12. The A-1 Carbon Adsorption System shall be equipped with at least three carbon canisters. Two carbon canisters shall be operated in series, whenever landfill gas is vented to A-1. At least one canister containing fresh carbon shall be maintained on site as a backup for the operating canisters and/or for replacement of spent carbon. Each canister shall contain at least 135 pounds of activated carbon. (Basis: Regulation 2-1-301)

13. Upon detection of 108 ppmv or more of non-methane organic compounds (NMOC), expressed as methane and corrected to 3% oxygen, at the outlet of the final carbon canister, the Permit Holder shall replace the carbon canisters in A-1. The first carbon canister shall be replaced with either the final carbon canister or a fresh carbon canister. The final carbon canister shall be replaced with a fresh carbon canister. (Basis: Regulation 8-34-301.4)

VI. Permit Conditions

Condition # 876

FOR: S-1, LANDFILL AND GAS COLLECTION SYSTEM; A-1, CARBON ADSORPTION SYSTEM; AND A-2, LANDFILL GAS FLARE;

14. In order to demonstrate compliance with Regulation 8-34-301.4 and Parts 8b and 13 above, the Permit Holder shall monitor the exhaust from the final carbon canister of A-1 using a portable analyzer. The exhaust from A-1 shall be monitored at least once for every 16 hours that A-1 is operated. This monitoring frequency shall be increased to once every 8 operating hours, if the detected exhaust exceeds 90 ppmv of NMOC, expressed as methane and corrected to 3% oxygen. (Basis: Regulation 8-34-301.4 and 8-34-509)

15. If the ~~T~~total reduced sulfur compounds~~s~~ concentration in ~~the~~ collected landfill gas ~~shall be~~ is monitored as a surrogate for monitoring sulfur dioxide in the flare exhaust, ~~unless the Permit Holder has met the requirements of Part 15b below.~~ then ~~T~~the concentration of total reduced sulfur compounds in the collected landfill gas shall not exceed 1300 ppmv (dry). (Basis: Regulation 9-1-302)

~~a. In order to demonstrate compliance with this part, the Permit Holder shall measure the hydrogen sulfide concentration in collected landfill gas on a quarterly basis using a draeger tube. The landfill gas sample shall be taken from the main landfill gas header. The Permit Holder shall follow the manufacturer's recommended procedures for using the draeger tube and interpreting the results. The Permit Holder shall conduct the first draeger tube test no later than 3 months after the issue date of the MFR Permit and quarterly thereafter. The total reduced sulfur concentration of the landfill gas shall be calculated by multiplying 1.2 times the measured hydrogen sulfide concentration (TRS = 1.2 * H_2S).~~

~~b. After conducting at least 4 quarters of monitoring for hydrogen sulfide concentration pursuant to Part 15a above, the Permit Holder may discontinue the quarterly draeger tube monitoring, if all of the following criteria are satisfied:~~

~~i. each quarterly test indicates that the hydrogen sulfide concentration in the collected landfill gas is less than 400 ppmv of H_2S,~~

~~ii. the standard deviation of the measured hydrogen sulfide concentration (determined from at least 4 quarterly monitoring events) is less than 100 ppmv of H_2S, and~~

~~iii. the permit holder conducts the annual sulfur dioxide testing specified in Part 16g or the annual landfill gas sulfur compound testing specified in Part 17.~~

~~(Basis: Regulation 9-1-302)~~

VI. Permit Conditions

Condition # 876

FOR: S-1, LANDFILL AND GAS COLLECTION SYSTEM; A-1, CARBON ADSORPTION SYSTEM; AND A-2, LANDFILL GAS FLARE;

16. In order to demonstrate compliance with Parts 6, 7, and 8 above and Regulations ~~8, Rule 34, Sections 301.3 and 412~~ 8-34-301.3, 8-34-412, and 9-1-302, the Permit Holder shall ensure that a District approved source test is conducted annually on the A-2 Landfill Gas Flare. 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), total hydrocarbons (THC), methane (CH_4), and total non-methane organic compounds (NMOC) in the landfill gas;
    c. stack gas flow rate from the flare (dry basis);
    d. concentrations (dry basis) of NO_x, CO, THC, CH_4, NMOC, and O_2 in the flare stack gas;
    e. NMOC destruction efficiency achieved by the flare;
    f. average combustion zone temperature in the flare during the test period; and
    g. concentration (dry basis) of SO_2 in the flare stack gas, unless the Permit Holder is meeting the requirements of Part 15~~a or~~ and tests for all sulfur compounds listed in EPA's AP-42 Table 2.4-1 pursuant to Part 17.

    Each annual source test shall be conducted ~~no earlier than 9 months and~~ no later than 12 months after the previous annual source test. The Source Test Section of the District shall be contacted to obtain approval of the source test procedures at least 14 days in advance of each source test. The Source Test Section 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 45 days of the test date. (Basis: Cumulative Increase and Regulations 8-34-301.3, 8-34-412, and 9-1-302)

VI. Permit Conditions

Condition # 876

FOR: S-1, LANDFILL AND GAS COLLECTION SYSTEM; A-1, CARBON ADSORPTION SYSTEM; AND A-2, LANDFILL GAS FLARE;

17. The Permit Holder shall conduct a characterization of the landfill gas concurrent with the annual source test required by Part 16 above. The landfill gas sample shall be drawn from the main landfill gas header. In addition to the compounds listed in Part 16b, the landfill gas shall be analyzed for all the organic and sulfur compounds listed in the most recent version of EPA's AP-42 Table 2.4-1. Sulfur compound testing is not required, if the Permit Holder is satisfying Part 16g by conducting annual SO_2 testing at the flare exhaust. All concentrations shall be reported on a dry basis. The test report shall be submitted to the Compliance and Enforcement Division within 45 days of the test date. After conducting three annual landfill gas characterization tests, the Permit Holder may request – by submitting a permit application for a Change of Conditions – to remove specific compounds from the list of compounds requiring testing. The District will consider eliminating future test requirements for a compound, if the compound has not been detected and the District determines that the compounds will have no significant impacts on the cancer risk or hazard index determinations for the site. (Basis: AB-2588 Air Toxics Hot Spots Act, and Regulations 8-34-412 and 9-1-302)

18. In order to demonstrate compliance with the above conditions, the Permit Holder shall~~:~~ maintain the following records. All records shall be maintained on site in an APCO approved logbook or shall be made readily available to District staff upon request for a period of 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 2-1-301, 2-6-501, 8-34-301, 8-34-303, 8-34-305, 8-34-412, 8-34-414, 8-34-415, 8-34-501, 8-34-503, 8-34-505, 8-34-506, and 9-1-302)
    a. Maintain an accurate map of the landfill that 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 2a.
    b. Record the date and time for each startup event and each shutdown event for the A-1 Carbon Adsorption System and the A-2 Landfill Gas Flare, and identify any time periods when the A-1 Carbon Adsorption System is vented to the A-2 Landfill Gas Flare.
    c. Identify the maximum daily landfill gas collection rate for each month and summarize the total landfill gas collection rate on a monthly basis.

VI. Permit Conditions

Condition # 876

FOR: S-1, LANDFILL AND GAS COLLECTION SYSTEM; A-1, CARBON ADSORPTION SYSTEM; AND A-2, LANDFILL GAS FLARE;

d. Record the operating time for the A-1 Carbon Adsorption System on a daily basis and summarize the total operating time for A-1 on a monthly basis.

e. Summarize the total operating time for the A-2 Landfill Gas Flare on a monthly basis.

f. Calculate and record, on a monthly basis, the maximum daily and total monthly heat input to the flare to demonstrate compliance with Part 5. The heat input shall be calculated using: (i) the landfill gas flow rate recorded pursuant to Parts 11 and 18c, (ii) the average methane concentration in the landfill gas measured during the most recent source test (assume the methane content is 45% until the first source test results are available), and (iii) a high heating value for methane of 1013 BTU/ft^3 at 60 degrees F.

g. For each monitoring event at the A-1 Carbon Adsorption System, record: (i) the date and time that the exhaust concentration was measured, (ii) the operating time for A-1 since the exhaust concentration was last measured, (iii) the measured NMOC exhaust concentration, and (iv) the corrected NMOC exhaust concentration (expressed as methane at 3% oxygen). Show any calculations used to correct the measured NMOC concentration.

h. For each landfill gas sulfur monitoring event, record: (i) the date and time that the landfill gas sulfur content was measured and (ii) the total reduced sulfur content that was measured ~~using the draeger tube~~.

i. Maintain records of all test dates and test results performed to maintain compliance with Parts 16 and 17 above, Regulations 8-34-301, 8-34-303, 8-34-305, 8-34-412, 8-34-414, and 8-34-415, or any other applicable rule or regulation.

~~All records shall be maintained on site in an APCO approved logbook or shall be made readily available to District staff upon request for a period of 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 2-1-301, 2-6-501, 8-34-301, 8-34-303, 8-34-305, 8-34-412, 8-34-414, 8-34-415, 8-34-501, 8-34-503, 8-34-505, 8-34-506, and 9-1-302)~~

VI. Permit Conditions

Condition # 876

FOR: S-1, LANDFILL AND GAS COLLECTION SYSTEM; A-1, CARBON ADSORPTION SYSTEM; AND A-2, LANDFILL GAS FLARE;

19. The annual report required by BAAQMD Regulation 8-34-411 shall be submitted in two semi-annual increments. The reporting period for the first increment of the Regulation 8-34-411 annual report that is submitted subsequent to the issuance of the MFR Permit for this site shall be from December 1, 2002 through November 30, 2003. This first increment report shall be submitted by December 31, 2003. The reporting periods and report submittal due dates for all subsequent increments of the Regulation 8-34-411 report shall be synchronized with the reporting periods and report submittal due dates for the semi-annual MFR Permit monitoring reports that are required by Section I.F. of the MFR Permit for this site. A single report may be submitted to satisfy the requirements of Section I.F, Regulation 8-34-411, and 40 CFR Part 63.1980(a), provided that all items required by each applicable reporting requirement are included in the single report. (Basis: Regulation 8-34-411 and 40 CFR Part 63.1980(a))

VI. Permit Conditions

Condition # 19912
FOR: S-3, DIESEL ENGINE FOR EMERGENCY STANDBY GENERATOR

*1. ~~Hours of Operation: The emergency standby engine shall only be operated to mitigate emergency conditions or for reliability-related activities. Operation while mitigating emergency conditions is unlimited. Operation for reliability-related activities is limited to 100 hours per any calendar year. (Basis: Regulation 9-8-330)~~The owner/operator shall not exceed 20 hours per year per engine for reliability-related testing. (Basis: CCR Title 17, Section 93115.6(b)(3)(A)(1)(a))

*2. ~~"Emergency Conditions" is defined as any of the following:~~The owner/operator shall operate each emergency standby engine only for the following purposes: to mitigate emergency conditions, for emission testing to demonstrate compliance with a District, State or Federal emission limit, or for reliability-related activities (maintenance and other testing, but excluding emission testing). Operating while mitigating emergency conditions or while emission testing to show compliance with District, State or Federal emission limits is not limited. (Basis: CCR Title 17, Section 93115.6(b)(1 and 3) and Regulation 9-8-330)

~~a. Loss of regular natural gas supply.~~
~~b. Failure of regular electric power supply.~~
~~c. Flood mitigation.~~
~~d. Sewage overflow mitigation.~~
~~e. Fire.~~
~~f. Failure of a primary motor, but only for such time as needed to repair or replace the primary motor.~~
~~(Basis: Regulation 9-8-231)~~

~~*3. "Reliability-related activities" is defined as any of the following:~~
~~a. Operation of an emergency standby engine to test its ability to perform for an emergency use, or~~
~~b. Operation of an emergency standby engine during maintenance of a primary motor.~~
~~(Basis: Regulation 9-8-232)~~

~~*4. The emergency standby engine shall be equipped with either:~~
~~a. a non-resettable totalizing meter that measures and records the hours of operation for the engine, or~~
~~b. a non-resettable fuel usage meter.~~
~~(Basis: Regulation 9-8-530)~~

VI. Permit Conditions

Condition # 19912
FOR: S-3, DIESEL ENGINE FOR EMERGENCY STANDBY GENERATOR

*3. The owner/operator shall operate each emergency standby engine only when a non-resettable totalizing meter (with a minimum display capability of 9,999 hours) that measures the hours of operation for the engine is installed, operated and properly maintained. (Basis: CCR Title 17, Section 93115.10(e)(1) and Regulation 9-8-530)

~~5. Records: The Permit Holder shall maintain the following records in an APCO-approved log:~~
~~*a. Monthly records of the total hours of operation for this engine.~~
~~*b. Monthly records of any hours of operation for emergency conditions.~~
~~*c. For each emergency, describe the nature of the emergency condition.~~
~~d. Records of the vendor-certified sulfur content for all fuels burned in this engine.~~
~~All records shall be kept on site for at least five years from the date of entry and shall be made available for District inspection upon request. These record keeping requirements do not replace the record keeping requirements contained in any applicable rules or regulations.~~
~~(Basis: Regulation 9-1-304 and 9-8-530)~~

4. Records: The owner/operator shall maintain the following monthly records in a District-approved log for at least 60 months from the date of entry. Log entries shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request. (Basis: CCR Title 17, Section 93115.10(e and g) and Regulations 2-6-501, 9-1-304, and 9-8-530)
   a. Hours of operation for reliability-related activities (maintenance and testing).
   b. Hours of operation for emission testing to show compliance with emission limits.
   c. Hours of operation (emergency).
   d. For each emergency, the nature of the emergency condition.
   e. Fuel usage for the engine.
   f. Records of the vendor-certified sulfur content for all fuels burned in this engine.

VII. APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS

This section has been included 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 column 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 AND GAS COLLECTION SYSTEM,
A-1 CARBON ADSORPTION SYSTEM, AND
A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	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	P/E	Records
Gas Flow	BAAQMD 8-34-301 and 301.1	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)

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-1 CARBON ADSORPTION SYSTEM, AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Gas Flow	BAAQMD Condition # 876, Parts ~~2,~~ 3~~,~~ and 4	Y		Landfill gas collection system shall operate continuously and all collected gases shall be vented to a properly operating control system	BAAQMD Condition # 876, Parts 10, 11, and 18b-e and BAAQMD Regulation 8-34-501.1 and 8-34-501.2	C & P/D	Gas Flow Meter, Flare Alarms, and Records of Landfill Gas Flow Rates, Collection and Control Systems Downtime, and Collection System Components
Collection and Control Systems Shutdown Time	BAAQMD 8-34-113.2	Y		≤ 240 hours/year and ≤ 5 consecutive days	BAAQMD Condition # 876, Part~~s~~ 18(b, ~~18~~d, and ~~18~~e) and BAAQMD 8-34-501.1	P/D	Operating Records
Periods of Inopera-tion for Para-metric Monitors	BAAQMD 1-523.2	Y		≤ 15 consecutive days~~/~~ per incident and ≤ 30 calendar days~~/~~ per 12 month period	BAAQMD 1-523.4	P/D	Operating Records for All Parametric Monitors

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-1 CARBON ADSORPTION SYSTEM, AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	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 and BAAQMD Condition # 876, Part 3b	Y		< 0 psig (applies to each well or collector connected to vacuum)	BAAQMD 8-34-414, 501.9 and 505.1 and BAAQMD Condition # 876, Part 18i	P/M	Monthly Inspection and Records
Temper-ature of Gas at Wellhead	BAAQMD 8-34-305.2 and BAAQMD Condition # 876, Part 3b	Y		< 55 ^{o}C (131 ^{o}F) (applies to each well or collector connected to vacuum)	BAAQMD 8-34-414, 501.9 and 505.2 and BAAQMD Condition # 876, Part 18i	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 and BAAQMD Condition # 876, Part 18i~~	~~P/M~~	~~Monthly Inspection and Records~~
Gas Concen-trations at Wellhead	BAAQMD Condition # 876, Part 3c(i)	Y		O_2 < 15% by volume (applies to all wells and collectors connected to vacuum, except as described in Part 3c(ii-iii))	BAAQMD Condition # 876, Parts 3d-e and 18i	P/M	Monthly Inspection and Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-1 CARBON ADSORPTION SYSTEM, AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Collection System Compo-nent Operating Require-ments	BAAQMD 8-34-404 and BAAQMD Condition # 876, Part 3a (i & iii)	Y		> 20 wells and collectors operating continuously at any one time and re-connect wells and collectors to vacuum when wellhead CH_4 > 20% by volume	BAAQMD Condition # 876, Parts 3d-e and 18i	P/M	Monthly Inspection and 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 and BAAQMD Condition # 876, Part 18i	P/Q	Quarterly Inspection of collection and control system components with Portable Analyzer and Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-1 CARBON ADSORPTION SYSTEM, AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	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 (surface leak limit)	BAAQMD 8-34-415, 416, 501.6, 506 and 510 and BAAQMD Condition # 876, Part 18i	P/M, Q, ~~and~~ & E	Monthly Visual Inspection of Cover, Quarterly Inspection with Portable Analyzer of Surface, Various Reinspec-tion Times for Leaking Areas, and Records
Non-Methane Organic Com-pounds (NMOC)	BAAQMD 8-34-301.3	Y		≥ 98% removal by weight OR < 30 ppmv, dry basis @ 3% O_2, expressed as methane (applies to A-2 Landfill Gas Flare only)	BAAQMD 8-34-412 and 8-34-501.4 and BAAQMD Condition # 876, Parts 16 and 18i	P/A	Source Tests and Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-1 CARBON ADSORPTION SYSTEM, AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NMOC	BAAQMD 8-34-301.4	Y		≥ 98% removal by weight OR < 120 ppmv, dry basis @ 3% O_2, expressed as methane (applies to A-1 Carbon Adsorption System only)	BAAQMD 8-34-501.11 and 8-34-509 and BAAQMD Condition # 876, Parts 14 and 18g	P/E (at least once for every 16 hours of A-1 operation; after conc. is > 90 ppm, at least once for every 8 hours of A-1 operation)	Periodic Monitoring of A-1 Exhaust with a Portable Analyzer and Records
NMOC	BAAQMD Condition # 876, Part 13	Y		Replace carbon when exhaust concentration exceeds 108 ppmv, dry basis @ 3% O_2, expressed as methane (applies to A-1 Carbon Adsorption System only)	BAAQMD Condition # 876, Parts 14 and 18g	P/E (at least once for every 16 hours of A-1 operation; after conc. is > 90 ppm, at least once for every 8 hours of A-1 operation)	Periodic Monitoring of A-1 Exhaust with a Portable Analyzer and Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-1 CARBON ADSORPTION SYSTEM, AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Temperature of Combustion Zone (CT)	BAAQMD Condition # 876, Part 8a	Y		CT ≥ ~~1450~~1400 °F, averaged over any 3-hour period (applies to A-2 Landfill Gas Flare when A-2 is operated alone)	BAAQMD 8-34-501.3 and 507 ~~and SIP 8-34-501.3~~ and BAAQMD Condition # 876, Part 9	C	Temperature Sensor and Recorder (continuous)
Temperature of Combustion Zone (CT)	BAAQMD Condition # 876, Part 8b	Y		CT ≥ 1200 °F, averaged over any 3-hour period (applies to A-2 Landfill Gas Flare when A-2 is down stream of A-1)	BAAQMD 8-34-501.3 and 507 ~~and SIP 8-34-501.3~~ and BAAQMD Condition # 876, Part 9	C	Temperature Sensor and Recorder (continuous)
Opacity	BAAQMD 6-1-301	Y		Ringelmann No. 1 for < 3 minutes/hour (applies to A-1 Carbon Adsorption System and A-2 Landfill Gas Flare)	None	N	N/A
FP	BAAQMD 6-1-310	Y		≤ 0.15 grains/dscf (applies to A-1 Carbon Adsorption System and A-2 Landfill Gas Flare)	None	N	N/A

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-1 CARBON ADSORPTION SYSTEM, AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO_2	BAAQMD 9-1-301	Y		Property Line Ground Level Limits: ≤ 0.5 ppm for 3 minutes and ≤ 0.25 ppm for 60 min. and ≤0.05 ppm for 24 hours (applies to A-2 Landfill Gas Flare only)	None	N	N/A
SO_2	BAAQMD Regulation 9-1-302	Y		≤ 300 ppm (dry basis) (applies to A-2 Landfill Gas Flare only)	BAAQMD Condition # 876, Parts ~~15, or~~ 16g~~,~~ or 17 and 18h-i	P/~~Q or~~ A	~~Quarterly Hydrogen Sulfide Analysis of Landfill Gas, or~~ Annual TRS Analysis of Landfill Gas~~,~~ or Annual SO2 Test at Flare~~,~~ and Records
Total Sulfur Content in Landfill Gas	BAAQMD Condition # 876, Part 15	Y		≤ 1300 ppmv, expressed as H_2S	BAAQMD Condition # 876, Parts ~~15 or~~ 17 and 18h-i	P/~~Q or~~ A	~~Quarterly Hydrogen Sulfide or~~ Annual TRS Analysis of Landfill Gas and Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-1 CARBON ADSORPTION SYSTEM, AND A-2 LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
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	None	N	N/A
Amount of Waste Accepted	BAAQMD Condition # 876, Part 1	Y		0 tons/day and ≤ 366,000 tons (cumulative amount of all wastes) and ≤ 542,000 yd^3 (cumulative amount of all wastes and cover materials)	BAAQMD Regulation 8-34-501.7	P/A	Records
Heat Input	BAAQMD Condition # 876, Part 5	Y		≤ 86.4 MM BTU per day and ≤ 31,536 MM BTU per year (applies to A-2 Landfill Gas Flare only)	BAAQMD Condition # 876, Parts 11, and 18(c, ~~18~~e, ~~and~~ ~~18~~f)	P/C, M	Gas Flow Meter and Records
NO_x	BAAQMD Condition # 876, Part 6	Y		≤ 30 ppmv of NO_x, corrected to 15% O_2, dry (applies to A-2 Landfill Gas Flare only)	BAAQMD Condition # 876, Parts 16d and 18i	P/A	Source Tests and Records
CO	BAAQMD Condition # 876, Part 7	Y		≤ 83 ppmv of CO, corrected to 15% O_2, dry (applies to A-2 Landfill Gas Flare only)	BAAQMD Condition # 876, Parts 16d and 18i	P/A	Source Tests and Records
Startup Shutdown or Mal-function Pro-cedures	40 CFR 63.6(e)	Y	~~1/16/04~~	Minimize Emissions by Implementing SSM Plan	40 CFR 63.1980(a-b)	P/E	Records (all occurrences, duration of each, corrective actions)

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S-3 DIESEL ENGINE FOR EMERGENCY STANDBY GENERATOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD Regulation 6-1-303	Y		Ringelmann No. 2 for < 3 minutes/hour	None	N	N/A
FP	BAAQMD Regulation 6-1-310	Y		≤ 0.15 grains/dscf	None	N	N/A
SO_2	BAAQMD Regulation 9-1-301	Y		Property Line Ground Level Limits: ≤ 0.5 ppm for 3 minutes and ≤ 0.25 ppm for 60 min. and ≤0.05 ppm for 24 hours	None	N	N/A
~~SO_2~~ Liquid Fuel Sulfur Content	BAAQMD Regulation 9-1-304	Y		Fuel Sulfur Limit: ≤ 0.5% S, by weight	BAAQMD Condition # 19912, Part ~~5d~~4f	P/~~M~~E	Vendor Certification
Liquid Fuel Sulfur Content	CCR Title 17, Section 93115.5 (b) and CCR Title 13, Section 2281(a) (1-5)	N		Standby Engines must use CARB Diesel Fuel or other CARB Approved Alternative Fuel, which has Fuel Sulfur Limits of: < 500 ppmw of S (< 0.05% S, by weight) or < 15 ppmw of S (for fuel sold after 6/1/06)	BAAQMD Condition #19912, Part 4f	P/E	Vendor Certification

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S-3 DIESEL ENGINE FOR EMERGENCY STANDBY GENERATOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Operating Hours	~~BAAQMD Regulation 9-8-330.2 and~~ BAAQMD Condition # 19912, Part 1 and CCR Title 17, Section 93115.6(b)(3)(A)(1)(a)	N		Operating Hours for Reliability-Related Activities: ≤ ~~100~~20 hours in a calendar year	BAAQMD Regulation 9-8-502.1 and 9-8-530 and BAAQMD Condition # 19912, Parts ~~4~~3 and ~~5~~4a-~~c~~d and CCR Title 17, Section 93115.10 (e)(1) & (g)(1)	P/C, M	Hour Meter ~~to record either operating hours or fuel usage~~ and ~~r~~Records

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 included in Section VII, Applicable ~~Emission~~ Limits & Compliance Monitoring Requirements, of this permit.

Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD 6-1-301	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions; or EPA Reference Method 9, Visual Determination of the Opacity of Emissions from Stationary Sources
BAAQMD 6-1-303	Ringelmann No. 2 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions; or EPA Reference Method 9, Visual Determination of the Opacity of Emissions from Stationary Sources
BAAQMD 6-1-310	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulate; or EPA Reference Method 5, Determination of Particulate Matter Emissions from Stationary Sources
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~~

VIII. Test Methods

Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
~~BAAQMD 8-34-305.4~~	~~Wellhead Oxygen~~	~~EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources~~
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 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 9-1-304	Liquid Fuel Sulfur Content	Manual of Procedures, Volume III, Method 10, Determination of Sulfur in Fuel Oil
BAAQMD 9-2-301	Limitations on Hydrogen Sulfide	Manual of Procedures, Volume VI, Part 1, Ground Level Monitoring for Hydrogen Sulfide and Sulfur Dioxide
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
CCR, Title 13, Section 2281 (a)(1 and 2)	Liquid Fuel Sulfur Content Limit	ASTM D2622-94 or CARB Approved Equivalent
BAAQMD Condition # 876, Parts 3a(ii) & 3c(i)	Wellhead Oxygen (O_2)	EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources

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Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD Condition # 876, Parts 3a(iii) & 3c(ii)	Wellhead Methane (CH_4)	EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources
BAAQMD Condition # 876, Part 5	Heat Input Limits for Flare	APCO approved gas flow meter and APCO approved calculation procedure described in BAAQMD Condition # 876, Part 18f
BAAQMD Condition # 876, Part 6	NO_x Emission Limit for Flare	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling; or EPA Reference Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
BAAQMD Condition # 876, Part 7	CO Emission Limit for Flare	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling; or EPA Reference Method 10, Determination of Carbon Monoxide Emissions from Stationary Sources
BAAQMD Condition # 876, Part 8	Combustion Zone Temperature Limits for Flare	APCO Approved Device
BAAQMD Condition # 876, Part 13	Carbon Replacement Trigger Level (NMOC concentration in A-1 exhaust)	APCO Approved Portable Analyzer and EPA Reference Method 21, Determination of Volatile Organic Compound Leaks and EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources
BAAQMD Condition # 876, Part 15	Landfill Gas Sulfur Content Limit	~~Draeger Tube measuring H_2S: used in accordance with manufacturer's recommended procedures~~Manual of Procedures, Volume III, Method 5 Determination of Total Mercaptans in Effluents and Method 25 Determination of Hydrogen Sulfide in Effluents, or Method 44 Determination of Reduced Sulfur Gases and Sulfur Dioxide in Effluent Samples by Gas Chromatographic Methods

IX. PERMIT SHIELD

Not applicable

X. REVISION HISTORY

~~**Initial Proposal: March 18, 2003**~~

Title V Permit Issuance (Application # 2617): June 13, 2003

Minor Revision (Application # 7437): October 7, 2003

- Revise CO emission limit for A-2 Landfill Gas Flare in Condition # 876, Part 7 and Table VII-A

Renewal (Application # 17057): [Insert Approval Date]

- Correct Responsible Official, Facility Contact, and Executive Officer information on the Title Page.
- Remove Section XII from the Table of Contents.
- Correct and update regulatory amendment dates in Section I.
- Add and revise text in Sections I, III, IV, VII, and VIII to conform to current standard text, and remove Section XII to conform to current standard MFR permit format.
- Revise the minimum combustion zone temperature limit for the A-2 Flare in Tables II-B and VII-A and in Condition # 876, Part 8a.
- Update regulatory amendment dates, remove obsolete SIP citations, and add additional applicable requirements to Table III.
- Update regulatory amendment dates and descriptions and delete unnecessary future effective dates in Tables IV-A, IV-B, VII-A, VII-B, and VIII.
- Remove the Regulation 8-34-305 wellhead N_2 and O_2 limits from Tables IV-A, VII-A, and VIII and replace them with the alternative wellhead standards in Condition # 876, Part 3c.
- Add Less Than Continuous Operation Provisions to Tables IV-A and VII-A and to Condition # 876, Part 3a.
- In Table IV-A, correct bases for Condition # 876, Parts 2 and 3.
- Add new applicable provisions of BAAQMD Regulation 9, Rule 8 to Tables IV-B and VII-B for the S-3 Diesel Engine.
- Add the applicable provisions of the CARB ATCM for Stationary Compression Ignition Engines to Tables IV-B and VII-B for S-3.
- Replace the existing text of Condition # 19912 with

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standard condition language from template Condition # 22820 to ensure compliance with the applicable CARB ATCM requirements. Add the new condition descriptions and bases (with corrected regulatory citations) to Table IV-B.

- In Section VI, Condition # 876, Part 2, update standard condition text and reference less than continuous operating requirements.
- In Condition # 876, Part 3 and Table VII-A, add less than continuous operating provisions for individual gas collection system components, describe well disconnection and re-connection requirements, add alternative wellhead limits, clarify applicable wellhead standards, and add associated monitoring and record keeping requirements.
- In Condition # 876, Part 15, reduce the frequency of the total reduced sulfur content monitoring requirement for landfill gas from quarterly to annual, based on test data that shows that the LFG sulfur content is very low. Remove the Draeger Tube monitoring requirements from Part 15 and from Tables VII-A and VIII, and clarify the applicable annual monitoring procedures.
- Clarify sulfur dioxide testing requirements in Condition # 876, Part 16.
- Make editorial corrections to Condition # 876, Part 18.
- In Section VI, Condition # 19912, Part 1, remove the obsolete 100 hour/year limit for reliability-related testing at a standby emergency generator and replace it with the applicable CARB ATCM limit of 20 hours/year.
- In Condition # 19912, remove the obsolete definitions in Parts 2 and 3 and replace them in Part 2 with operating restrictions that are consistent with the CARB ATCM.
- Remove the optional meters and fuel records in Condition # 19912, Part 4, and add the CARB ATCM required hour meter to Part 3.
- Replace the record keeping requirements in Condition # 19912, Part 5 with those in Part 4. The new records are consistent with the CARB ATCM, Regulation 9, Rule 8, and contain the vendor fuel sulfur content certification necessary for this permit.
- Add symbols (< and >) to Tables VII-A and VII-B to clarify applicable limits.
- Add the CARB diesel fuel sulfur content limits to Table

VIII. Test Methods

VII-B and the diesel fuel sulfur content test method to Table VIII.

- Add several missing EPA reference methods to Table VIII.
- In Table VIII, add the applicable test methods for the new alternative wellhead limits.
- In Section X, remove the proposal date for the draft initial MFR permit, add the application numbers for each revision, and include a description of these renewal permit revisions.
- In Section XI, add numerous terms to the glossary.
- Remove Section XII.

XI. GLOSSARY

ACT
Federal Clean Air Act

AP-42
An EPA Document "Compilation of Air Pollution Emission Factors" that is used to estimate emissions from numerous source types. It is available electronically from EPA's web site at: http://www.epa.gov/ttn/chief/ap42/index.html

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

API
American Petroleum Institute

ARB
Air Resources Board

ASTM
American Society for Testing and Materials

ATC
Authority to Construct

ATCM
Airborne Toxic Control Measure

BAAQMD
Bay Area Air Quality Management District

BACT
Best Available Control Technology

BARCT
Best Available Retrofit Control Technology

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

C1
An organic chemical compound with one carbon atom, for example: methane

C3
An organic chemical compound with three carbon atoms, for example: propane

XI. Glossary

C5
An organic chemical compound with five carbon atoms, for example: pentane

C6
An organic chemical compound with six carbon atoms, for example: hexane

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)

CCR
California Code of Regulations

CEC
California Energy Commission

CEQA
California Environmental Quality Act

CEM
A "continuous emissions monitor" is a monitoring device that provides a continuous direct measurement of some pollutant (e.g. NO_x 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

CI
Compression Ignition

CIWMB
California Integrated Waste Management Board

XI. Glossary

CO
Carbon Monoxide

CO2 or CO_2
Carbon Dioxide

CT
Combustion Zone Temperature

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

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, 4.53 E6 equals (4.53) x (10^6) = (4.53) x (10 x 10 x 10 x 10 x 10 x 10) = 4,530,000. Scientific notation is used to express large or small numbers without writing out long strings of zeros.

EG
Emission Guidelines

EO
Executive Order

EPA
The federal Environmental Protection Agency.

ETP
Effluent Treatment Plant

Excluded
Not subject to any District regulations.

XI. Glossary

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 (MACT), and Part 72 (Permits Regulation, Acid Rain), 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

GDF
Gasoline Dispensing Facility

GLM
Ground Level Monitor

grains
1/7000 of a pound

H2S or H_2S
Hydrogen Sulfide

H2SO4 or H_2SO_4
Sulfuric Acid

H&SC
Health and Safety Code

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 40 CFR Part 63.

Hg
Mercury

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.

LFG
Landfill gas

XI. Glossary

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.

Long ton
2200 pounds

Major Facility
A facility with potential emissions of: (1) at least 100 tons per year of regulated air pollutants, (2) at least 10 tons per year of any single hazardous air pollutant, and/or (3) at least 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity of hazardous air pollutants 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 Federal Clean Air Act and implemented by District Regulation 2, Rule 6.

MIN or Min.
Minimum

MOP
The District's Manual of Procedures.

MSDS
Material Safety Data Sheet

MSW
Municipal solid waste

MTBE
methyl tertiary-butyl ether

MW
Molecular weight

N2 or N_2
Nitrogen

NA
Not Applicable

XI. Glossary

NAAQS
National Ambient Air Quality Standards

NESHAPS
National Emission Standards for Hazardous Air Pollutants. See in 40 CFR Parts 61 and 63.

NMHC
Non-methane Hydrocarbons (Same as NMOC)

NMOC
Non-methane Organic Compounds (Same as NMHC)

NO2 or NO_2
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 Federal Clean Air Act, and implemented by 40 CFR Part 60 and District Regulation 10.

NSR
New Source Review. A federal program for pre-construction review and permitting of new and modified sources of pollutants for which criteria have been established in accordance with Section 108 of the Federal Clean Air Act. Mandated by Title I of the Federal Clean Air Act and implemented by 40 CFR Parts 51 and 52 and District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

O2 or O_2
Oxygen

Offset Requirement
A New Source Review requirement to provide federally enforceable emission offsets for the emissions from a new or modified source. 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 is not exempted by 40 CFR 72 from Titles IV and V of the Clean Air Act.

POC
Precursor Organic Compounds

XI. Glossary

PM
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 those 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.

PV or P/V Valve
Pressure/Vacuum Valve

Regulated Organic Liquid
"Regulated organic liquids" are those liquids which require permits, or which are subject to some regulation, when processed at a liquid-handling operation. For example, for refinery marine terminals, regulated organic liquids are defined as "organic liquids" in Regulation 8, Rule 44.

RMP
Risk Management Plan

RWQCB
Regional Water Quality Control Board

S
Sulfur

SCR
A "selective catalytic reduction" unit is an abatement device that reduces NO_x concentrations in the exhaust stream of a combustion device. SCRs utilize a catalyst, which operates within a specific temperature range, and injected ammonia to promote the conversion of NO_x compounds to nitrogen gas.

Short ton
2000 pounds

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 Act.

XI. Glossary

SO2 or SO_2
Sulfur dioxide

SO3 or SO_3
Sulfur trioxide

SSM
Startup, Shutdown, or Malfunction

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 (as identified by CARB)

THC
Total Hydrocarbons includes all (NMHC + Mplus methane) (same as TOC).

therm
100,000 British Thermal Units

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 includes all (NMOC +plus Mmethane, (Ssame 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 SO_2 that will be present in the combusted fuel gas, since sulfur compounds are converted to SO_2 by the combustion process.

TSP
Total Suspended Particulate

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TVP
True Vapor Pressure

VMT
Vehicle Miles Traveled

VOC
Volatile Organic Compounds

Symbols:

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

Units of Measure:

atm	=	atmospheres
bbl	=	barrel of liquid (42 gallons)
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
in	=	inches
kW	=	kilowatts
lb	=	pound
lbmol	=	pound-mole
~~in~~	=	~~inches~~
m^2	=	square meter
m^3	=	cubic meters
Mg	=	mega grams
min	=	minute
mm	=	~~million~~millimeter
MM	=	million
MM BTU	=	million BTU

XI. Glossary

M cf	=	one thousand cubic feet
MM cf	=	one million cubic feet
~~Mg~~	~~=~~	~~mega grams~~
MW	=	megawatts
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
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

~~XII.APPLICABLE STATE IMPLEMENTATION PLAN~~

~~The Bay Area Air Quality Management District's portion of the State Implementation Plan can be found at EPA Region 9's website. The address is:~~

~~http://yosemite1.epa.gov/r9/r9sips.nsf/California?ReadForm&Start=1&Count=30&Expand=3.1~~