# Bay Area Air Quality Management District

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

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## ~~Final~~Proposed

# MAJOR FACILITY REVIEW PERMIT

**Issued To:**

## City of Mountain View (Shoreline)
## Facility #A2740

**Facility Address:**
2600 Shoreline Boulevard
Mountain View, CA 94043

**Mailing Address:**
P. O. Box 7540
Mountain View, CA 94039

| **Responsible Official** | **Facility Contact** |
|---|---|
| Kevin C. Duggan | John T. Welbourn |
| City Manager | Environmental Engineering Manager |
| 650-903-6301 | 650-903-6219 |

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

BAAQMD Engineering Division Contact:
Carol S. Allen

**ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT**

~~Signed by Jack P. Broadbent~~ _____ ~~June 17, 2004~~ _____
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);

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);

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);

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);

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

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

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

1. This Major Facility Review Permit was issued on July 28, 2003 and expires on June 30, 2008. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than December 31, 2007 and no earlier than June 30, 2007. **If a complete application for renewal has not been submitted in accordance with this deadline, the facility may not operate after June 30, 2008.** If the permit renewal has not been issued by June 30, 2008, but a complete application for renewal has been submitted in accordance with the above deadlines, the existing permit will continue in force until the District takes final action on the renewal application. (Regulation 2-6-307, 404.2, 407 & 409.6; MOP Volume II, Part 3, §4.2)

2. The permit holder shall comply with all conditions of this permit. The permit consists of this document and all appendices. Any non-compliance with the terms and conditions of this permit will constitute a violation of the law and will be grounds for enforcement action; permit termination, revocation and re-issuance, or modification; or denial of a permit renewal application. (Regulation 2-6-307; MOP Volume II, Part 3, §4.11)

# I. Standard Conditions

3. In the event any enforcement action is brought as a result of a violation of any term or condition of this permit, the fact that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with such term or condition shall not be a defense to such enforcement action. (MOP Volume II, Part 3, §4.11)
4. This permit may be modified, revoked, reopened and reissued, or terminated for cause. (Regulation 2-6-307, 409.8, 415; MOP Volume II, Part 3, §4.11)
5. The filing of a request by the facility for a permit modification, revocation and re-issuance, or termination, or 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 be signed by a responsible official for the facility. (MOP Volume II, Part 3, §4.11)

# I. Standard Conditions

### 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 July 28, 2003 to December 31, 2003. The report shall be submitted by January 31, 2004. Subsequent reports shall be for the following periods: January 1st through June 30th and July 1st through December 31st, and are due on the last day of the month after the end of the reporting period. All instances of non-compliance shall be clearly identified in these reports. The reports shall be certified by the responsible official as true, accurate, and complete. In addition, all instances of non-compliance with the permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions. The reports shall be sent to the following address:

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

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

# I. Standard Conditions

### 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 July 1st to June 30th. The certification shall be submitted by July 31st 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 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

# I. Standard Conditions

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 the 544-acre Landfill, Crittenden Landfill and the major portion of the Vista Landfill)<br><br>Landfill Gas Collection System | Closed Solid Waste Disposal Site<br><br>Active | | Maximum Design Capacity: 18,852,000 $yd^3$ (14,413,400 $m^3$); Maximum Cumulative Waste In Place: 12,725,000 tons;<br>7 horizontal collectors<br>264 vertical wells |
| S-11 | Diesel Engine for Emergency Standby Generator | Cummins | 6CTA8.3 G-2 | 207 bhp, 506 $in^3$, 10.6 gallons/hour of diesel oil, 1.453 MM BTU/hour |
| S-12 | Microturbine, landfill gas fired ~~(not installed yet)~~ | Ingersoll-Rand | 70LM | 71 kW nominal, 92 kW maximum at 0 °F, 1.27 MM BTU/hour |
| S-13 | Microturbine, landfill gas fired ~~(not installed yet)~~ | Ingersoll-Rand | 70LM | 71 kW nominal, 92 kW maximum at 0 °F, 1.27 MM BTU/hour |
| S-14 | Diesel Engine for Emergency Standby Generator | Kohler | D300 12.1A65 | 469 bhp, 740 $in^3$, 19.8 gallons/hour of diesel oil, 2.772 MM BTU/hour |

# II. Equipment

## Table II B - Abatement Devices

| A-# | Description | Source(s) Controlled | Applicable Requirement | Operating Parameters | Limit or Efficiency |
|---|---|---|---|---|---|
| A-3 | Landfill Gas Flare (33 MM BTU/hour) | S-1 | BAAQMD 8-34-301.3, see also Table IV-A | Minimum combustion zone temperature of: 1400 °F (3-hour average), see also Table VII-A | Either 98% destruction of NMOC or < 30 ppmv of NMOC, as $CH_4$, at 3% $O_2$, dry |
| A-4 | Landfill Gas Flare (48 MM BTU/hour) | S-1 | BAAQMD 8-34-301.3, see also Table IV-A | Minimum combustion zone temperature of: 1400 °F (3-hour average), see also Table VII-A | Either 98% destruction of NMOC or < 30 ppmv of NMOC, as $CH_4$, at 3% $O_2$, dry |
| A-5 | Landfill Gas Flare (48 MM BTU/hour) | S-1 | BAAQMD 8-34-301.3, see also Table IV-A | Minimum combustion zone temperature of: 1400 °F (3-hour average), see also Table VII-A | Either 98% destruction of NMOC or < 30 ppmv of NMOC, as $CH_4$, at 3% $O_2$, dry |

# 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.

**NOTE:**

There are differences between the current BAAQMD rules and the versions of the rules in the SIP. All sources must comply with <u>both</u> 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) | N |
| SIP Regulation 1 | General Provisions and Definitions (6/28/99) | Y |
| BAAQMD Regulation 2, Rule 1 | General Requirements (8/1/01) | N |
| BAAQMD 2-1-429 | Federal Emissions Statement (6/7/95) | Y |
| SIP Regulation 2, Rule 1 | General Requirements (1/26/99) | Y |
| BAAQMD Regulation 5 | Open Burning (3/6/02) | N |
| SIP Regulation 5 | Open Burning (9/4/98) | Y |
| BAAQMD Regulation 6 | Particulate Matter and Visible Emissions (12/19/90) | Y |

# III. Generally Applicable Requirements

## Table III
## Generally Applicable Requirements

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) |
|---|---|---|
| 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) | Y |
| BAAQMD Regulation 8, Rule 3 | Organic Compounds - Architectural Coatings (11/21/01) | N |
| SIP Regulation 8, Rule 3 | Organic Compounds - Architectural Coatings (2/18/98) | Y |
| BAAQMD Regulation 8, Rule 4 | Organic Compounds - General Solvent and Surface Coating Operations (10/16/02) | N |
| SIP Regulation 8, Rule 4 | Organic Compounds - General Solvent and Surface Coating Operations (12/23/97) | Y |
| BAAQMD Regulation 8, Rule 16 | Organic Compounds - Solvent Cleaning Operations (10/16/02) | N |
| SIP Regulation 8, Rule 16 | Organic Compounds - Solvent Cleaning Operations (12/9/94) | Y |
| BAAQMD Regulation 8, Rule 40 | Organic Compounds – Aeration of Contaminated Soil and Removal of Underground Storage Tanks (12/15/99) | Y |
| BAAQMD 8-40-116 | Exemption, Small Volume | Y |
| BAAQMD 8-40-117 | Exemption, Accidental Spills | Y |
| BAAQMD Regulation 8, Rule 49 | Organic Compounds - Aerosol Paint Products (12/20/95) | N |
| SIP Regulation 8, Rule 49 | Organic Compounds - Aerosol Paint Products (3/22/95) | Y |
| BAAQMD Regulation 8, Rule 51 | Organic Compounds - Adhesive and Sealant Products (7/17/02) | N |
| SIP Regulation 8, Rule 51 | Organic Compounds - Adhesive and Sealant Products (2/26/02) | Y |
| BAAQMD Regulation 11, Rule 2 | Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing (10/7/98) | N |
| BAAQMD Regulation 11, Rule 14 | Hazardous Pollutants - Asbestos Containing Serpentine (7/17/91) | N |
| BAAQMD Regulation 12, Rule 4 | Miscellaneous Standards of Performance - Sandblasting (7/11/90) | N |
| SIP Regulation 12, Rule 4 | Miscellaneous Standards of Performance - Sandblasting (9/2/81) | Y |
| California Health and Safety Code Section 44300 et seq. | Air Toxics “Hot Spots” Information and Assessment Act of 1987 | N |

# III. Generally Applicable Requirements

**Table III**
**Generally Applicable Requirements**

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) |
|---|---|---|
| 40 CFR Part 61, Subpart M | National Emission Standards for Hazardous Air Pollutants – National Emission Standard for Asbestos (6/19/95) | Y |
| EPA Regulation 40 CFR 82 | Protection of Stratospheric Ozone (2/21/95) | |
| Subpart F, 40 CFR 82.156 | Leak Repair | Y |
| Subpart F, 40 CFR 82.161 | Certification of Technicians | Y |
| Subpart F, 40 CFR 82.166 | Records of Refrigerant | 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 permit. 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-3 LANDFILL GAS FLARE,**
**A-4 LANDFILL GAS FLARE, AND**
**A-5 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 (5/2/2001)** | | |
| 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 | |
| **SIP Regulation 1** | **General Provisions and Definitions (6/28/1999)** | | |
| 1-523 | Parametric Monitoring and Recordkeeping Procedures | Y[1] | |

# IV. Source-Specific Applicable Requirements

## Table IV – A
## Source-Specific Applicable Requirements
## S-1 LANDFILL AND GAS COLLECTION SYSTEM,
## A-3 LANDFILL GAS FLARE,
## A-4 LANDFILL GAS FLARE, AND
## A-5 LANDFILL GAS FLARE

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) | Future Effective Date |
|---|---|---|---|
| 1-523.3 | Reports of Violations | Y[1] | |
| 1-523.5 | Maintenance and Calibration | Y[1] | |
| **BAAQMD Regulation 6** | **Particulate Matter and Visible Emissions (12/19/1990)** | | |
| 6-301 | Ringelmann No. 1 Limitation (applies to A-3, A-4, and A-5 Flares only) | Y | |
| 6-305 | Visible Particles (applies to A-3, A-4, and A-5 Flares only) | Y | |
| 6-310 | Particle Weight Limitation (applies to A-3, A-4, and A-5 Flares only) | Y | |
| 6-401 | Appearance of Emissions (applies to A-3, A-4, and A-5 Flares only) | Y | |
| **BAAQMD Regulation 8, Rule 34** | **Organic Compounds – Solid Waste Disposal Sites (~~10/6/1999~~6/15/2005)** | | |
| 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 | |
| 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 | |

# IV. Source-Specific Applicable Requirements

## Table IV – A
## Source-Specific Applicable Requirements
## S-1 LANDFILL AND GAS COLLECTION SYSTEM,
## A-3 LANDFILL GAS FLARE,
## A-4 LANDFILL GAS FLARE, AND
## A-5 LANDFILL GAS FLARE

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) | Future Effective Date |
|---|---|---|---|
| 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-3, A-4, and A-5 Flares 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 (except as specified in Condition # 16065, Part 5) | Y | |
| 8-34-305.3 | Nitrogen < 20% or (except as specified in Condition # 16065, Part 5) | Y | |
| 8-34-305.4 | Oxygen < 5% (except as specified in Condition # 16065, Part 5) | Y | |
| 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 | |
| 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 | |

# IV. Source-Specific Applicable Requirements

## Table IV – A
## Source-Specific Applicable Requirements
## S-1 LANDFILL AND GAS COLLECTION SYSTEM,
## A-3 LANDFILL GAS FLARE,
## A-4 LANDFILL GAS FLARE, AND
## A-5 LANDFILL GAS FLARE

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) | Future Effective Date |
|---|---|---|---|
| 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-3, A-4, and A-5 Flares 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 | |
| 8-34-501.10 | Gas Flow Rate Records for All Emission Control Systems | Y | |
| 8-34-501.12 | Records Retention for 5 Years | Y | |
| 8-34-503 | Landfill Gas Collection and Emission Control System Leak Testing | Y | |
| 8-34-504 | Portable Hydrocarbon Detector | Y | |
| 8-34-505 | Well Head Monitoring | Y | |
| 8-34-506 | Landfill Surface Monitoring | Y | |
| 8-34-506.1 | Criteria for Annual Monitoring: Closed Landfill | Y | |
| 8-34-506.2 | Criteria for Annual Monitoring: No Excess in 3 Quarters | Y | |

# IV. Source-Specific Applicable Requirements

## Table IV – A
## Source-Specific Applicable Requirements
## S-1 LANDFILL AND GAS COLLECTION SYSTEM,
## A-3 LANDFILL GAS FLARE,
## A-4 LANDFILL GAS FLARE, AND
## A-5 LANDFILL GAS FLARE

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) | Future Effective Date |
|---|---|---|---|
| 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-3, A-4, and A-5 Flares only) | Y | |
| 8-34-508 | Gas Flow Meter | Y | |
| 8-34-510 | Cover Integrity Monitoring | Y | |
| **BAAQMD Regulation 9, Rule 1** | **Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/1995)** | | |
| 9-1-301 | Limitations on Ground Level Concentrations (applies to A-3, A-4, and A-5 Flares only) | Y | |
| 9-1-302 | General Emission Limitations (applies to A-3, A-4, and A-5 Flares only) | Y | |
| **BAAQMD Regulation 9, Rule 2** | **Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/1999)** | | |
| 9-2-301 | Limitations on Hydrogen Sulfide | N | |
| **40 CFR Part 60, Subpart A** | **Standards of Performance for New Stationary Sources – General Provisions (5/4/1998)** | | |
| 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 | |

# IV. Source-Specific Applicable Requirements

## Table IV – A
## Source-Specific Applicable Requirements
## S-1 LANDFILL AND GAS COLLECTION SYSTEM,
## A-3 LANDFILL GAS FLARE,
## A-4 LANDFILL GAS FLARE, AND
## A-5 LANDFILL GAS FLARE

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) | Future Effective Date |
|---|---|---|---|
| 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 (2/24/1999)** | | |
| 60.36c(a) | Collection and Control Systems in Compliance by 30 months after Initial NMOC Emission Rate Report Shows NMOC Emissions $\geq$ 50 MG/year | Y | |
| **40 CFR Part 62** | **Approval and Promulgation of State Plans for Designated Facilities and Pollutants (9/20/2001)** | | |
| 62.1115 | Identification of Sources | Y | |
| **40 CFR Part 63, Subpart A** | **National Emission Standards for Hazardous Air Pollutants: General Provisions (3/16/1994)** | | |
| 63.4 | Prohibited activities and circumvention | Y | |
| 63.5(b) | Requirements for existing, newly constructed, and reconstructed sources | Y | |
| 63.6(e) | Operation and maintenance requirements and SSM Plan | Y | |
| 63.6(f) | Compliance with non-opacity emission standards | Y | |
| 63.10(b)(2)(i-v) | Records for startup, shutdown, malfunction, and maintenance | Y | |
| 63.10(d)(5) | Startup, Shutdown, and Malfunction (SSM) Reports | Y | |
| **40 CFR Part 63, Subpart AAAA** | **National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills (1/16/2003)** | | |

# IV. Source-Specific Applicable Requirements

## Table IV – A
## Source-Specific Applicable Requirements
## S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-3 LANDFILL GAS FLARE, A-4 LANDFILL GAS FLARE, AND A-5 LANDFILL GAS FLARE

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) | Future Effective Date |
|---|---|---|---|
| 63.1945 | When do I have to comply with this subpart? | Y | |
| 63.1945(b) | Compliance date for existing affected landfills | Y | |
| 63.1955 | What requirements must I meet? | Y | |
| 63.1955(a)(2) | Comply with State Plan that implements 40 CFR Part 60, Subpart Cc | Y | |
| 63.1955(b) | Comply with 63.1960-63.1985, if a collection and control system is required by 40 CFR Part 60, Subpart WWW or a State Plan implementing 40 CFR Part 60, Subpart Cc | Y | |
| 63.1955(c) | Comply with all approved alternatives to standards for collection and control systems plus all SSM requirements and 6 month compliance reporting requirements | Y | |
| 63.1960 | How is compliance determined? | Y | |
| 63.1965 | What is a deviation? | Y | |
| 63.1975 | How do I calculate the 3-hour block average used to demonstrate compliance? | Y | |
| 63.1980 | What records and reports must I keep and submit? | Y | |
| 63.1980(a) | Comply with all record keeping and reporting requirements in 40 CFR Part 60, Subpart WWW or the State Plan implementing 40 CFR Part 60, Subpart Cc, except that the annual report required by 40 CFR 60.757(f) must be submitted every 6 months | Y | |
| 63.1980(b) | Comply with all record keeping and reporting requirements in 40 CFR Part 60, Subpart A and 40 CFR Part 63, Subpart A, including SSM Plans and Reports | Y | |
| **BAAQMD Condition # 16065** | | | |
| Part 1 | Design capacity and waste acceptance limits (Regulation 2-1-301) | Y | |
| Part 2 | Landfill gas control system requirements (Regulation 8-34-301) | Y | |
| Part 3 | Landfill gas collection system operating requirements (Regulation 8-34-301.1) | Y | |

# IV. Source-Specific Applicable Requirements

## Table IV – A
## Source-Specific Applicable Requirements
## S-1 LANDFILL AND GAS COLLECTION SYSTEM,
## A-3 LANDFILL GAS FLARE,
## A-4 LANDFILL GAS FLARE, AND
## A-5 LANDFILL GAS FLARE

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) | Future Effective Date |
|---|---|---|---|
| Part 4 | Landfill gas collection system description (Regulations 2-1-301, 8-34-301.1, 8-34-303, 8-34-304, and 8-34-305) | Y | |
| Part 5 | Alternative well head requirements limits for specific wells (Regulation 8-34-305) | Y | |
| Part 6 | Alarm and equipment requirements for flares (Regulation 8-34-301) | Y | |
| Part 7 | Combustion zone temperature limits for flares (Toxic Risk Management Policy and Regulations 8-34-301.3) | Y | |
| Part 8 | Landfill gas flow rate limit for flares (Cumulative Increase) | Y | |
| Part 9 | NOx emission limits for flares (Cumulative Increase) | Y | |
| Part 10 | CO emission limits for flares (Cumulative Increase and RACT) | Y | |
| Part 11 | Vinyl chloride emission limit for flares (Toxic Risk Management Policy) | N | |
| Part 12 | Landfill gas sulfur content limit and monitoring requirements (Regulation 9-1-302) | Y | |
| Part 13 | Annual source test requirements (Cumulative Increase, Toxic Risk Management Policy, and Regulations 8-34-301.3 and 8-34-412) | Y | |
| Part 14 | Annual landfill gas characterization analyses (Toxic Risk Management Policy and Regulation 8-34-412) | Y | |
| Part 15 | 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 16 | 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-11 DIESEL ENGINE FOR EMERGENCY STANDBY GENERATOR

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) | Future Effective Date |
|---|---|---|---|
| **BAAQMD Regulation 6** | **Particulate Matter and Visible Emissions (12/19/1990)** | | |
| 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 (3/15/1995)** | | |
| 9-1-301 | Limitations on Ground Level Concentrations | Y | |
| 9-1-304 | 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)** | | |
| 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 | |
| 9-8-530 | Emergency Standby 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 | |
| **BAAQMD Condition # 19210** | | | |
| 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 and 9-8-530) | Y | |

# IV. Source-Specific Applicable Requirements

## Table IV – C
## Source-Specific Applicable Requirements
## S-12 MICROTURBINE AND S-13 MICROTURBINE

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) | Future Effective Date |
|---|---|---|---|
| **BAAQMD Regulation 1** | **General Provisions and Definitions (5/2/2001)** | | ~~Upon Initial Startup of S-12 or S-13~~ |
| 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 | |
| **SIP Regulation 1** | **General Provisions and Definitions (6/28/1999)** | | ~~Upon Initial Startup of S-12 or S-13~~ |
| 1-523 | Parametric Monitoring and Recordkeeping Procedures | Y[1] | |
| 1-523.3 | Reports of Violations | Y[1] | |
| 1-523.5 | Maintenance and Calibration | Y[1] | |
| **BAAQMD Regulation 6** | **Particulate Matter and Visible Emissions (12/19/1990)** | | ~~Upon Initial Startup of S-12 or S-13~~ |
| 6-301 | Ringelmann No. 1 Limitation | Y | |
| 6-305 | Visible Particles | Y | |
| 6-310 | Particulate Weight Limitation | Y | |
| 6-401 | Appearance of Emissions | Y | |
| **BAAQMD Regulation 8, Rule 34** | **Organic Compounds - Solid Waste Disposal Sites (~~10/6/99~~6/15/2005)** | | ~~Upon Initial Startup of S-12 or S-13~~ |
| 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 | 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 | |

# IV. Source-Specific Applicable Requirements

## Table IV – C
## Source-Specific Applicable Requirements
## S-12 MICROTURBINE AND S-13 MICROTURBINE

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) | Future Effective Date |
|---|---|---|---|
| 8-34-301.4 | Limits for Other Emission Control Systems | Y | |
| 8-34-411 | Annual Report | Y | |
| 8-34-412 | Compliance Demonstration Tests | Y | |
| 8-34-413 | Performance Test Report | Y | |
| 8-34-501 | Operating Records | Y | |
| ~~8-34-501.2~~ | ~~Emission Control System Downtime~~ | ~~Y~~ | |
| 8-34-501.4 | Testing | Y | |
| 8-34-501.6 | Leak Discovery and Repair Records | Y | |
| 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 Parameter Monitoring | Y | |
| 8-34-501.12 | Records Retention for 5 Years | Y | |
| 8-34-503 | Landfill Gas Collection and Emission Control System Leak Testing | Y | |
| 8-34-504 | Portable Hydrocarbon Detector | Y | |
| 8-34-508 | Gas Flow Meter | Y | |
| 8-34-509 | Key Emission Control System Operating Parameter(s) | Y | |
| **BAAQMD Regulation 9, Rule 1** | **Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/1995)** | | ~~Upon Initial Startup of S-12 or S-13~~ |
| 9-1-301 | Limitations on Ground Level Concentrations | Y | |
| 9-1-302 | General Emission Limitations | Y | |
| **BAAQMD Regulation 9, Rule 2** | **Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/1999)** | | ~~Upon Initial Startup of S-12 or S-13~~ |
| 9-2-301 | Limitations on Hydrogen Sulfide | N | |
| **40 CFR Part 60, Subpart A** | **Standards of Performance for New Stationary Sources – General Provisions (5/4/1998)** | | ~~Upon Initial Startup of S-12 or S-13~~ |
| 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 | |

# IV. Source-Specific Applicable Requirements

## Table IV – C
## Source-Specific Applicable Requirements
## S-12 MICROTURBINE AND S-13 MICROTURBINE

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) | Future Effective Date |
|---|---|---|---|
| 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 (2/24/1999)** | | ~~Upon Initial Startup of S-12 or S-13~~ |
| 60.36c(a) | Collection and Control Systems in Compliance by 30 months after Initial NMOC Emission Rate Report Shows NMOC Emissions $\geq$ 50 MG/year | Y | |
| **40 CFR Part 62** | **Approval and Promulgation of State Plans for Designated Facilities and Pollutants (9/20/2001)** | | ~~Upon Initial Startup of S-12 or S-13~~ |
| 62.1115 | Identification of Sources | Y | |
| **40 CFR Part 63, Subpart A** | **National Emission Standards for Hazardous Air Pollutants: General Provisions (3/16/1994)** | | ~~Upon Initial Startup of S-12 or S-13~~ |
| 63.4 | Prohibited activities and circumvention | Y | |
| 63.5(b) | Requirements for existing, newly constructed, and reconstructed sources | Y | |
| 63.6(e) | Operation and maintenance requirements and SSM Plan | Y | |
| 63.6(f) | Compliance with non-opacity emission standards | Y | |
| 63.10(b)(2)(i-v) | Records for startup, shutdown, malfunction, and maintenance | Y | |
| 63.10(d)(5) | Startup, Shutdown, and Malfunction (SSM) Reports | Y | |

# IV. Source-Specific Applicable Requirements

## Table IV – C
## Source-Specific Applicable Requirements
## S-12 MICROTURBINE AND S-13 MICROTURBINE

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) | Future Effective Date |
|---|---|---|---|
| **40 CFR Part 63, Subpart AAAA** | **National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills (1/16/2003)** | | ~~Upon Initial Startup of S-12 or S-13~~ |
| 63.1945 | When do I have to comply with this subpart? | Y | |
| 63.1945(b) | Compliance date for existing affected landfills | Y | |
| 63.1955 | What requirements must I meet? | Y | |
| 63.1955(a)(2) | Comply with State Plan that implements 40 CFR Part 60, Subpart Cc | Y | |
| 63.1955(b) | Comply with 63.1960-63.1985, if a collection and control system is required by 40 CFR Part 60, Subpart WWW or a State Plan implementing 40 CFR Part 60, Subpart Cc | Y | |
| 63.1955(c) | Comply with all approved alternatives to standards for collection and control systems plus all SSM requirements and 6 month compliance reporting requirements | Y | |
| 63.1960 | How is compliance determined? | Y | |
| 63.1965 | What is a deviation? | Y | |
| 63.1975 | How do I calculate the 3-hour block average used to demonstrate compliance? | Y | |
| 63.1980 | What records and reports must I keep and submit? | Y | |
| 63.1980(a) | Comply with all record keeping and reporting requirements in 40 CFR Part 60, Subpart WWW or the State Plan implementing 40 CFR Part 60, Subpart Cc, except that the annual report required by 40 CFR 60.757(f) must be submitted every 6 months | Y | |
| 63.1980(b) | Comply with all record keeping and reporting requirements in 40 CFR Part 60, Subpart A and 40 CFR Part 63, Subpart A, including SSM Plans and Reports | Y | |
| **BAAQMD Condition # 20297** | | | ~~Upon Initial Startup of S-12 or S-13~~ |
| Part 1 | Landfill Gas Flow Rate Limit and Monitoring Requirements (Cumulative Increase, Offsets, and 2-1-301) | Y | |
| Part 2 | NOx Emissions Limit (Offsets) | Y | |
| Part 3 | CO Emissions Limit (Cumulative Increase) | Y | |
| Part 4 | NMOC Emissions Limit (Offsets and Regulation 8-34-301.4) | Y | |

# IV. Source-Specific Applicable Requirements

## Table IV – C
## Source-Specific Applicable Requirements
## S-12 MICROTURBINE AND S-13 MICROTURBINE

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) | Future Effective Date |
|---|---|---|---|
| Part 5 | Temperature Monitoring Device Requirement (Regulation 8-34-509) | Y | |
| Part 6 | Source Testing Requirements (Cumulative Increase, Offsets, and Regulations 8-34-301.4 and 8-34-412) | Y | |
| Part 7 | Temperature Limit and Monitoring Requirements (Regulation 8-34-509) | Y | |
| Part 8 | Records (Regulations 2-6-501, 8-34-301.4, 8-34-412, 8-34-501.11, and 8-34-501.12) | Y | |

# IV. Source-Specific Applicable Requirements

## Table IV – D
## Source-Specific Applicable Requirements
## S-14 DIESEL ENGINE FOR EMERGENCY STANDBY GENERATOR

| Applicable Requirement | Regulation Title or Description of Requirement | Federally Enforceable (Y/N) | Future Effective Date |
|---|---|---|---|
| **BAAQMD Regulation 6** | **Particulate Matter and Visible Emissions (12/19/1990)** | | |
| 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 (3/15/1995)** | | |
| 9-1-301 | Limitations on Ground Level Concentrations | Y | |
| 9-1-304 | 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)** | | |
| 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 | |
| 9-8-530 | Emergency Standby 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 | |
| **BAAQMD Condition # 21195** | | | |
| Part 1 | Fuel Oil Sulfur Limit (Cumulative Increase and TBACT) | Y | |
| Part 2 | Hours of Operation Limitations (Cumulative Increase, Offsets, Toxic Risk Management Policy, and Regulation 9-8-330) | Y | |
| Part 3 | Meter Requirements (Cumulative Increase, Offsets, Toxic Risk Management Policy, and Regulation 9-8-530) | Y | |
| Part 4 | Records (Cumulative Increase, Offsets, Toxic Risk Management Policy, and Regulations 9-1-304 and 9-8-530) | Y | |

# V. SCHEDULE OF COMPLIANCE

## A. Standard 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.

## B. Custom Schedule of Compliance

During landfill gas collection system shutdown events that are necessary to complete the installation and initial commissioning of the ALZA landfill gas treatment and compression station and the process control systems for this station, the on-site flares, and three off-site landfill gas fired IC engines, the permit holder will be out of compliance with the Regulation 8-34-301.1 and Condition # 16065, Part 3 requirements to continuously operate a landfill gas collection system at the S-1 Shoreline Landfills. In addition, the Permit Holder may be out of compliance with Regulations 8-34-301.2, 303, and 305 and Condition # 16065, Parts 2 and 5c during or immediately after these shutdown events. In order to reduce the duration of these non-compliant periods, to monitor the non-compliance, and to return this facility to a state of full compliance as soon as possible, the District is imposing the following Schedule of Compliance.

1. Downtime for the landfill gas collection and control system during the variance period (July 26, 2005 through July 25, 2006) is limited to 120 hours of actual downtime and 12 hours maximum downtime per day. In addition, the Permit Holder for the S-1 Shoreline Landfills is limited to 180 hours of non-compliant time beyond the 120 hours of shutdown time and 18 hours maximum of non-compliant time per shutdown event. (Basis: Docket # 3498)

2. The Permit Holder shall notify the District no later than two business days before each planned downtime event and within 24 hours after the discovery of any unplanned event. Notification may be made by fax to Director of Compliance and Enforcement at (415) 928-0338. (Basis: Docket # 3498)

3. The Permit Holder shall keep logs of any downtime events consistent with the requirements of Regulations 8-34-501.1 and 501.2. The logs must be clear about the reason(s) for the shutdown, including a short description of the work completed that necessitated the shutdown. The Permit Holder must provide enough information to verify that the shutdown was due to work authorized under the variance. In addition, the Permit Holder must record the date and time when vacuum was restored to the landfill gas system. The logs should also show calculated excess emissions. Records documenting well field monitoring must include a listing of wells and areas monitored, pressure readings at each wellhead monitored, and emission values in parts per million by volume of any surface or

## VI. Permit Conditions

component leaks detected in accordance with Regulation 8, Rule 34 and the facility's MFR Permit. (Basis: Docket # 3498)

4. For every planned shutdown event of more than two hours, the Permit Holder shall monitor for pressure, surface emissions, and component leaks at landfill gas extraction wellheads in accordance with the provisions of this paragraph. Monitoring is to commence immediately after the landfill gas system goes back online. For purposes of monitoring, the landfill will be divided into the following six areas: Crittenden, Vista, From Nine, Back Nine, and 6A Northeast. In each area, the Permit Holder must test 15% of the wellheads for pressure and for surface/component leaks around the well casings or vaults. Different wells should be tested in each area after each event. The Permit Holder will follow the test procedures set out in site specific permit conditions, including Condition # 16065, Part 5c of the facility's MFR permit. If there are any exceedances, the Permit Holder shall return to the wellhead within two business days or sooner and conduct remonitoring. If an exceedance still exists after the remonitoring, the Permit Holder shall revert to the standard Regulation 8, Rule 34 regime of corrective action and remonitoring for that location. (Basis: Docket # 3498)

5. The Permit Holder shall utilize the analytical data, monitoring results, and downtime records to calculate the actual volatile organic compound and toxic air contaminant emissions that occurred during the variance period. These calculations shall be submitted to the District and the Hearing Board within ten working days after the end of the variance period or within ten working days after the project is complete, whichever occurs first. (Basis: Docket # 3498)

6. This Schedule of Compliance shall apply from [date of issuance] through and including July 25, 2006. Landfill gas collection system shutdowns - for the purposes of installing or commissioning of the ALZA treatment/compression station and associated process control equipment - are not authorized on or after July 26, 2006. (Basis: Docket # 3498)

# VI. PERMIT CONDITIONS

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

**Condition # 16065**

**FOR: S-1 LANDFILL AND GAS COLLECTION SYSTEM; A-3 LANDFILL GAS FLARE; A-4 LANDFILL GAS FLARE; AND A-5 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 areas controlled by the Permit Holder shall not exceed 12,725,000 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 18,852,000 cubic yards. (Basis: Regulation 2-1-301)

2. All landfill gas collected by the Landfill Gas Collection Systems for S-1 shall be: abated by the Landfill Gas Flares (A-3, A-4, or A-5); abated by the Microturbines (S-12 or S-13); or sold to ALZA Corporation for off-site combustion in one or more of the following devices: S-29 IC Engine-Genset at Facility # A5081, S-2 IC Engine-Genset at Facility # B3816, or S-4 IC Engine-Genset at Facility # B3817. ~~Upon installation of the S-12 or S-13 Microturbines, landfill gas may be vented to S-12 or S-13 in addition to A-3, A-4, or A-5.~~ The Permit Holder may use any combination of the landfill gas control devices listed above, provided that sufficient landfill gas is collected and controlled to prevent violations of the Regulation 8-34-303 surface leak limit and provided that all of the following operating requirements are satisfied.
   a. To ensure adequate landfill gas control capacity, the microturbines must be operated concurrently with other control devices such as at least one flare or the three off-site engines.
   b. 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)

3. The landfill gas collection system described below in Part 4a shall be operated continuously, as defined in Regulation 8-34-219. Wells and adjustment valves shall not be disconnected, removed, or completely closed, without prior written authorization from the District, unless the Permit Holder Complies with all applicable provisions of Regulation 8, Rule 34, Sections 113, 117, and 118. (Basis: Regulation 8-34-301.1)

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**Condition # 16065**

**FOR: S-1 LANDFILL AND GAS COLLECTION SYSTEM; A-3 LANDFILL GAS FLARE; A-4 LANDFILL GAS FLARE; AND A-5 LANDFILL GAS FLARE;**

4. The Permit Holder shall apply for and receive an Authority to Construct before modifying the landfill gas collection system described in Part 4a below. 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 that are subject to the Authority to Construct requirement.

   a. The Permit Holder has been issued a Permit to Operate for the landfill gas collection system components listed below. Well and collector locations, depths, and lengths are as described in detail in Permit Application # 1009.

| Area Description | Required Components |
|---|---|
| 544 Acre Site | 140 vertical wells |
| 544 Acre Site | 6 horizontal collectors |
| Vista Site | 88 vertical wells |
| Vista Site | 1 horizontal collector |
| Crittenden Site | 36 vertical wells |

   (Basis: Regulations 8-34-301.1, 8-34-303, 8-34-304, and 8-34-305)

5. The gas collection system operating requirements listed below shall replace the well head requirements identified in Regulation 8-34-305.2 through 8-34-305.4 for the specified wells and collectors. All wells and collectors remain subject to the Regulation 8-34-305.1 requirement to maintain vacuum on each well head. In addition, part 5c clarifies the applicable limits for vaults containing gas collection system components. (Basis: Regulations 8-34-301.2, 8-34-303, and 8-34-305)

   a. The Regulation 8-34-305.2 temperature limit shall not apply to the wells listed below. The landfill gas temperature in each of the wells listed below shall not exceed 140 degrees F.

   Vista Landfill: VE-6, VE-9, VF-3, VF-11, VG-3, VG-3A, VG-4, VH-4, VH-5, VH-10, VJ-3, and VJ-4 (12 wells)

   544-Acre Landfill: NEA-08 (1 vertical well)

   b. The Regulation 8-34-305.3 nitrogen concentration limit and the Regulation 8-34-305.4 oxygen concentration limit shall not apply to the wells listed below, provided that the oxygen concentration in the landfill gas at the main header does not exceed 5% $O_2$ by volume (dry basis) and the methane concentration in the landfill gas at the main header is not less than 35% $CH_4$ by volume (dry basis). The permit holder shall monitor the landfill gas from the main header for oxygen and methane on a monthly to

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demonstrate compliance with this part.

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**Condition # 16065**

**FOR: S-1 LANDFILL AND GAS COLLECTION SYSTEM; A-3 LANDFILL GAS FLARE; A-4 LANDFILL GAS FLARE; AND A-5 LANDFILL GAS FLARE;**

| | |
|---|---|
| Crittenden Landfill: | CRA-1, CRA-2R, CRA-3, CRA-4, CRA-5R, CRA-6, CRA-7, CRA-8, CRA-9, CRA-10, CRA-13, CRB-1, CRB-2, CRB-3, CRB-4, CRB-5, CRB-6, CRB-7R, CRB-8, CRD-1, CRD-3, CRD-5, CRD-8, CRD-9, CRD-10, and CRD-11 (26 vertical wells) |
| Vista Landfill: | VA-HZ, VA-1, VA-01A, VA-2, VA-3, VA-3A, VA-4, VB-1, VB-2R, VB-3A, VB-4, VB-5R, VB-5A, VB-6, VB-7, VB-8, VC-1, VC-2, VC-3, VC-5, VC-6, VC-7, VC-8, VE-1, VE-4R, VE-5, VE-6, VE-7, VE-8, VE-9, VE-10, VF-1, VF-2, VF-4, VF-5R, VF-7, VF-8R, VH-3, VJ-2R, VJ-3R, VJ-4A, VJ-4R, VJ-5R, VJ-6, VJ-7R, VJ-8, VJ-9R, VJ-10, VJ-11R, VK-3, VK-4, VK-5 (1 horizontal collector and 51 vertical wells) |
| 544-Acre Landfill: | WA-1, WA-5, WA-6, WA-8, WA-9, WA-13, WA-14, WA-16, WA-18, WA-19, WA-20, WA-21, WA-22, WA-25, WA-26, WA-27, WA-28, WA-29, WB-1, WB-2, WB-3, WB-4, WB-5, WB-5A, WB-6, WB-6A, WB-7, WB-7A, WB-8, WB-9, WB-10, WB-11, WB-12, WB12-A, WB-16, WB-17, WD-3, WN-1, WN-2, WN-3R, WN-4, WN-4A, WN-5, WN-6, WN-7, WN-8, WN-9, WN-10, WN-11, WN-12, WN-13 (51 vertical wells)<br>A-16, B-2, B-3, B-20, B-24, B-28, Y-01, Y-02, Y-03, Y-04, Y-05, Y-06, LE-1, LE-2, LE-3, LE-4, FHZ-1, FHZ-2, FHZ-3, FHZ-4, FHZ-5, and MPHZ (6 horizontal collectors and 16 vertical wells)<br>NEA-01, NEA-02, NEA-03, NEA-04, NEA-05, NEA-06, NEA-07, NEA-08, NEA-09, NEA-11, NEA-13, NEA-15, NEA-16, NEB-01, NEB-02, NEB-03, NEB-04, NEB-05, NEB-06, NEB-08, NEB-10, NEB-11, NEB-12, NEB-13, NEC-01, NEC-02, NEC-03, NEE-02, NEE-03, NEE-04, NEE-05, and NEE-06 (32 vertical wells) |

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**Condition # 16065**

**FOR: S-1 LANDFILL AND GAS COLLECTION SYSTEM; A-3 LANDFILL GAS FLARE; A-4 LANDFILL GAS FLARE; AND A-5 LANDFILL GAS FLARE;**

c. This subpart applies to vaults containing gas collection system equipment, where the top of the vault is located at or near the surface of the landfill. The vault shall be monitored at both 1 cm from the vault (for comparison to the component leak limit of Regulation 8-34-301.2) and 2 inches above the vault (for comparison to the surface leak limit of Regulation 8-34-303).

i. If during an inspection the District's monitored readings show compliance with both the component leak limit and the surface leak limit, the vault and components within shall be deemed to be in compliance with Regulations 8-34-301.2 and 8-34-303. No further testing is necessary.

ii. If the District's monitored readings show an excess of either the component leak limit or the surface leak limit, the operator shall comply with the Regulation 8-34-415 Repair Schedule for Landfill Surface Leak Excesses, until the source of the leak can be identified. The vault shall be opened and allowed to air out for at least 10 minutes. The collection system components within the vault shall be re-monitored at 1 cm from the components and the landfill surface surrounding the vault shall be re-monitored at 2 inches above the surface.

iii. If the re-monitoring (after airing the vault for 10 minutes) shows no component leaks and no surface leaks, the vault and components within shall be deemed to be in compliance with Regulations 8-34-301.2 and 8-34-303.

iv. If the re-monitoring shows a component leak, or the operator's further evaluation determines that the source of the emissions excess was a collection system component, then a violation of 8-34-301.2 shall be deemed to have occurred; and the operator shall take all necessary corrective action and shall comply with all applicable reporting requirements.

v. If the re-monitoring shows a surface leak but not a component leak, the operator shall continue to comply with all applicable provisions of the Regulation 8-34-415 Repair Schedule for Landfill Surface Leak Excesses.

6. Each flare shall be equipped with auto restart capability and both local and remote alarm systems. (Basis: 8-34-301.1)

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**Condition # 16065**

**FOR: S-1 LANDFILL AND GAS COLLECTION SYSTEM; A-3 LANDFILL GAS FLARE; A-4 LANDFILL GAS FLARE; AND A-5 LANDFILL GAS FLARE;**

7. The combustion zone temperature of each flare (A-3, A-4, and A-5) shall be maintained at a minimum of 1400 degrees F, averaged over any three-hour period. If a source test demonstrates compliance with all applicable requirements at a different temperature, the APCO will revise the minimum combustion zone temperature limit in accordance with the procedures identified in Regulations 2-6-414 or 2-6-415 and 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. (Basis: Toxic Risk Management Policy and Regulation 8-34-301.3)

8. The total gas flow rate to the flares shall not exceed 4200 cfm, averaged over any calendar day. (Basis: Cumulative Increase)

9. Nitrogen oxide (NOx) emissions from the flares shall not exceed the concentration limits listed below. (Basis: Cumulative Increase)
   a. For A-3: 33 ppmv of NOx, corrected to 15% oxygen, dry basis.
   b. For A-4: 15 ppmv of NOx, corrected to 15% oxygen, dry basis.
   c. For A-5: 15 ppmv of NOx, corrected to 15% oxygen, dry basis.

10. Carbon monoxide (CO) emissions from the flares shall not exceed the concentration limits listed below. (Basis: Cumulative Increase and RACT)
   a. For A-3: 83 ppmv of CO, corrected to 15% oxygen, dry basis.
   b. For A-4: 83 ppmv of CO, corrected to 15% oxygen, dry basis.
   c. For A-5: 83 ppmv of CO, corrected to 15% oxygen, dry basis.

*11. If the vinyl chloride concentration at any flare stack exceeds 48 ppmv, the Permit Holder shall submit a request to the District for a Change of Permit Conditions within 30 days of receipt of the source test results. (Basis: Toxic Risk Management Policy)

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**Condition # 16065**

**FOR: S-1 LANDFILL AND GAS COLLECTION SYSTEM; A-3 LANDFILL GAS FLARE; A-4 LANDFILL GAS FLARE; AND A-5 LANDFILL GAS FLARE;**

12. Total reduced sulfur compounds in the collected landfill gas shall be monitored as a surrogate for monitoring sulfur dioxide in control system's exhaust. The concentration of total reduced sulfur compounds in the collected landfill gas shall not exceed 1300 ppmv (dry). In order to demonstrate compliance with this part, the Permit Holder shall measure the total sulfur content as hydrogen sulfide 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. (Basis: Regulation 9-1-302)

13. In order to demonstrate compliance with Parts 7-11 above and Regulation 8, Rule 34, Sections 301.3 and 412, the Permit Holder shall ensure that a District approved source test is conducted annually on each flare (A-3, A-4, and A-5). Each 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, vinyl chloride, and $O_2$ in the flare stack gas;
    e. the NMOC destruction efficiency achieved by the flare; and
    f. the average combustion zone temperature in the flare during the test period.

    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 and the Source Test Section within 45 days of the test date.
    (Basis: Cumulative Increase, Toxic Risk Management Policy, and Regulations 8-34-301.3 and 8-34-412)

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**Condition # 16065**

**FOR: S-1 LANDFILL AND GAS COLLECTION SYSTEM; A-3 LANDFILL GAS FLARE; A-4 LANDFILL GAS FLARE; AND A-5 LANDFILL GAS FLARE;**

14. The Permit Holder shall conduct a characterization of the landfill gas concurrent with the annual source test required by Part 13 above. The landfill gas sample shall be drawn from the main landfill gas header. In addition to the compounds listed in Part 13b, the landfill gas shall be analyzed for all the organic compounds listed in the most recent version of EPA's AP-42 Table 2.4-1. 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 to remove specific compounds from the list of compounds to be tested, if the compounds have not been detected, have no significant impact on the cancer risk determination for the site, and have no significant impact on the hazard index determination for the site. (Basis: Toxic Risk Management Policy and Regulation 8-34-412)

15. In order to demonstrate compliance with the above conditions, the Permit Holder shall:
    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 4a;
    b. Record the initial startup date for any new wells or collectors;
    c. Maintain records of all test dates and test results performed to maintain compliance with Parts 12-14 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)

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**Condition # 16065**
**FOR: S-1 LANDFILL AND GAS COLLECTION SYSTEM; A-3 LANDFILL GAS FLARE; A-4 LANDFILL GAS FLARE; AND A-5 LANDFILL GAS FLARE;**

16. 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 December 31, 2003. This first increment report shall be submitted by January 31, 2004. 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. (Basis: Regulation 8-34-411 and 40 CFR Part 63.1980(a))

**Condition # 19210**
**FOR: S-11 DIESEL ENGINE FOR EMERGENCY STANDBY GENERATOR;**

*1. Hours of Operation: The emergency standby generator, S-11, shall only be operated for emergency use or for reliability-related activities. In accordance with Regulation 9-8-330.2, S-11 shall not be operated for more than 100 hours in a calendar year for reliability-related activities. Operation for emergency use is unlimited. (Basis: Regulation 9-8-330 and Toxic Risk Management Policy)

*2. Emergency use is defined as the use of an emergency standby engine during any of the following: (Basis: Regulation 9-8-231)
   a. In the event of loss of regular natural gas supply;
   b. In the event of 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.

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

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**Condition # 19210**
**FOR: S-11 DIESEL ENGINE FOR EMERGENCY STANDBY GENERATOR;**

*4. Monitoring: Each emergency standby engine shall be equipped with either: (Basis: Regulation 9-8-530)
   a. A non-resettable totalizing meter that measures and records hours of operation.
   b. A non-resettable fuel usage meter

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: Regulations 9-1-304 and 9-8-530)

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**Condition # 20297**
**FOR: S-12 MICROTURBINE AND S-13 MICROTURBINE;**

1. The landfill gas flow rate to each Microturbine (S-12 and S-13) shall not exceed 76,200 cubic feet per day. To demonstrate compliance with this part, the Permit Holder shall ~~either:~~determine the landfill gas flow rate to each microturbine using the Supervisory Controls and Data Acquisition (SCADA) system and the procedures described below.
   ~~a. monitor and record landfill gas flow rate to each microturbine using a gas flow meter and recorder meeting the requirements of Regulation 8-34-508, or~~
   ~~b. calculate and record, on a monthly basis, the maximum daily landfill gas flow rate to each microturbine using the landfill gas flow rate records for the entire gas collection system and daily records of operating time and operating rate for each device that is burning landfill gas. If this monitoring method will be used, the Permit Holder shall obtain APCO approval (prior to startup of S-12 or S-13) for the specific operating rates for which records will be maintained and for all calculation procedures that will be used to determine the maximum daily landfill gas flow rate to each microturbine.~~
   a. The power output (P as kW) from each microturbine shall be monitored continuously and electronically entered into the data acquisition system.
   b. On a monthly basis, the methane concentration of the landfill gas (%$CH_4$ as % by volume) shall be measured using a GEM gas meter or other APCO approved method and shall be entered into the data acquisition system. For this measurement, the landfill gas sample may be drawn from a location immediately upstream of a microturbine or from the main landfill gas header.
   c. The data acquisition system shall calculate landfill gas flow rate ($Q_{LFG}$ as scf/hour) according to the following equation: $Q_{LFG} = 1337.6 * P / \%CH_4$, and shall sum the calculated flow rate values for each day.
   d. The data recorded above shall be summarized on a monthly basis. For each month, this summary shall show the measured methane concentration, the maximum daily landfill gas flow rate to each microturbine, and the total landfill gas flow rate to each microturbine.

   (Basis: Cumulative Increase, Offsets, and Regulation 2-1-301)

2. The nitrogen oxide (NOx) emissions from each Microturbine (S-12 and S-13) shall not exceed 10.0 pounds per day calculated as NO2. Compliance with this emission limit may be demonstrated by having no emissions exceeding 78 ppmv of NOx at 15% oxygen, dry basis. (Basis: Offsets)

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**Condition # 20297**
**FOR: S-12 MICROTURBINE AND S-13 MICROTURBINE;**

3. The carbon monoxide (CO) emissions from each Microturbine (S-12 and S-13) shall not exceed 10.0 pounds per day. Compliance with this emission limit may be demonstrated by having no emissions exceeding 128 ppmv of CO at 15% oxygen, dry basis. (Basis: Cumulative increase)

4. Emissions of non-methane organic compounds (NMOC) from each Microturbine (S-12 and S-13) shall not exceed 120 ppmv of NMOC (expressed as methane) at 3% oxygen, dry basis. (Basis: Offsets and Regulation 8-34-301.4)

5. The Permit Holder shall install and operate one or more thermocouples that will accurately measure the combustion zone temperature ~~(or other APCO approved monitor for an alternative APCO approved key emission control system operating parameter)~~ at each Microturbine (S-12 and S-13). (Basis: Regulation 8-34-509)

6. To demonstrate compliance with Parts 1-5 above and Regulation 8, Rule 34, Sections 301.4 and 412, the Permit Holder shall conduct ~~an initial~~ annual compliance demonstration test<u>s</u> on the S-12 and S-13 Microturbines~~ within 60 days of the initial start-up date for each microturbine and annually thereafter~~. The source tests shall determine the following:
   a. landfill gas flow rate (dry basis) and heat input rate to the microturbine;
   b. concentrations (dry basis) of carbon dioxide (CO2), nitrogen (N2), oxygen (O2), total hydrocarbons (THC), methane (CH4), non-methane organic compounds (NMOC) in the landfill gas;
   c. stack gas flow rate from the microturbine (dry basis);
   d. concentrations (dry basis) of NOx, CO, THC, CH4, NMOC, and O2 in the stack gas,
   e. NMOC destruction efficiency achieved by the microturbine;
   f. the average combustion zone temperature in the microturbine ~~(or other appropriate key emission control system operating parameter)~~ during the test period.

   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 and the Source Test Section within 45 days of the test date.

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**Condition # 20297**
**FOR: S-12 MICROTURBINE AND S-13 MICROTURBINE;**

~~If the Permit Holder is proposing to monitor a key emission control system operating parameter other than combustion zone temperature, the Permit Holder shall describe the following in the source test procedures: the proposed key emission control system operating parameter; how this operating parameter will affect NOx, CO, and NMOC outlet concentration or NMOC destruction efficiency; the monitoring method for the proposed parameter; and the proposed monitoring frequency. The source test report shall identify the key emission control system operating parameter readings measured during the source test and shall propose appropriate minimum and/or maximum operating parameters or ranges that will ensure compliance with the emission limits in Parts 2-4.~~ (Basis: Cumulative Increase, Offsets, and Regulations 8-34-301.4 and 8-34-412)

7. Within ~~105~~60 days of the initial ~~start-up~~ source test date, the Permit Holder shall maintain the combustion zone temperature of S-12 and S-13 at a minimum of ~~[insert the temperature limit established during the initial compliance demonstration source test, which shall be 50 degrees F below the average combustion zone temperature measured during the source test]~~1500 degrees F, averaged over any 3-hour period. The Permit Holder shall continuously monitor and record the combustion zone temperature to demonstrate compliance with this limit. 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 Regulations 2-6-414 or 2-6-415 and the following criteria. The minimum combustion zone temperature for a microturbine 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. ~~Alternatively, upon receiving APCO approval for the use of a key emission control system operating parameter other than combustion zone temperature, the Permit Holder shall maintain one or more key emission control system operating parameters within the minimum and maximum ranges established during the initial compliance demonstration tests. The Permit Holder shall monitor and record any key emission control system operating parameters that have been approved by the APCO on the monitoring schedule approved by the APCO, provided that monitoring shall be no less frequent than once per month. The temperature limit or other key emission control system operating parameters will be added to this part in accordance with the procedures identified in Regulation 2-6-406.~~ (Basis: Regulation 8-34-509)

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**Condition # 20297**
**FOR: S-12 MICROTURBINE AND S-13 MICROTURBINE;**

8. The Permit Holder shall maintain all monitoring records and records of all test dates and test results for any tests that are conducted to demonstrate compliance with these conditions 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, Offsets, and Regulations 2-6-501, 8-34-301.4, 8-34-412, 8-34-501.11, and 8-34-501.12)

**Condition # 21195**
**FOR: S-14 DIESEL ENGINE FOR EMERGENCY STANDBY GENERATOR**

1. The S-14 Diesel Engine shall exclusively use diesel fuel with a sulfur content of no more than 0.05% by weight. (basis: Cumulative Increase and TBACT)

2. The Permit Holder shall operate S-14 only under the following circumstances:
   a. For emergency use for an unlimited number of hours.
   b. For reliability-related activities so long as total hours of operation for this purpose do not exceed 100 hours in a calendar year.

   (basis: Cumulative Increase, Offsets, Toxic Risk Management Policy, and Regulation 9-8-330)

   Emergency use is defined by the following circumstances:
   c. In the event of loss of regular natural gas supply;
   d. In the event of failure of regular electric power supply;
   e. Flood mitigation;
   f. Sewage overflow mitigation;
   g. Fire;
   h. Failure of a primary motor, but only for such time as needed to repair or replace the primary motor.

   (basis: Regulation 9-8-231)

   Reliability-related activities are defined as either:
   i. Operation of an emergency standby engine to test its ability to perform for an emergency use; or

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**Condition # 21195**
**FOR: S-14 DIESEL ENGINE FOR EMERGENCY STANDBY GENERATOR**

j. Operation of an emergency standby engine during maintenance of a primary motor.

(basis: Regulation 9-8-232)

3. The Permit Holder shall equip S-14 with either:
   a. a non-resettable totalizing meter that measures hours of operation for the engine; or
   b. a non-resettable fuel usage meter (20 gallons of fuel shall be assumed to be equivalent to one hour of reliability related operation).

   (basis: Cumulative Increase, Offsets, Toxic Risk Management Policy, and Regulation 9-8-530)

4. To determine compliance with the above conditions, the owner/operator shall maintain the following records and provide all of the data necessary to evaluate compliance with the above conditions. A monthly log of usage shall indicate the following:
   a. Hours of operation (total)
   b. Hours of operation (emergency)
   c. For each emergency, the nature of the emergency condition
   d. Records of the vendor-certified sulfur content for all fuels burned in this engine.

   The Permit Holder shall maintain all records in a District-approved log. The Permit Holder shall retain the records on-site for five years, from the date of entry, and make them available for inspection by District staff upon request. These record-keeping requirements shall not replace the record-keeping requirements contained in any applicable District Regulations. (basis: Cumulative Increase, Offsets, Toxic Risk Management Policy, and Regulations 9-1-304 and 9-8-530)

# 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.

**Table VII – A**
**Applicable Limits and Compliance Monitoring Requirements**
**S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-3 LANDFILL GAS FLARE, A-4 LANDFILL GAS FLARE, AND A-5 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 |
|---|---|---|---|---|---|---|---|
| Amount of Waste Accepted | BAAQMD Condition # 16065, Part 1 | Y | | 0 tons/day and $\leq$ 12,725,000 tons (cumulative amount of all wastes) and $\leq$ 18,852,000 $yd^3$ (cumulative amount of all wastes and cover materials) | BAAQMD 8-34-501.7 | P/A | 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-3 LANDFILL GAS FLARE, A-4 LANDFILL GAS FLARE, AND A-5 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 # 16065, Parts 2-3 | Y | | Landfill gas collection system shall operate continuously and all collected gases shall be vented to a properly operating control system | BAAQMD 8-34-501.1, 501.2, 501.10, and 508 and BAAQMD Condition # 16065, Part 6 | C,P/E | Gas Flow Meter, Flare Alarms, and Records of Collection and Control Systems Downtime |
| ~~Landfill Gas Through-put~~ Gas Flow | BAAQMD Condition # 16065, Part 8 | Y | | Total Landfill Gas Throughput to All Flares: ≤ 4200 cfm, averaged over any calendar day ~~(total limit for all flares)~~ | BAAQMD 8-34-501.10 and 508 | C | Gas Flow Meter and Recorder (every 15 minutes) |
| Collection System Installa-tion Dates | BAAQMD 8-34-304.1 | Y | | For Inactive/Closed Areas: collection system components must be installed and operating by 2 years + 60 days after initial waste placement | BAAQMD 8-34-501.7 and 501.8 and BAAQMD Condition # 16065, Parts 15a-b | P/E | Records |
| Collection and Control Systems Shutdown Time | BAAQMD 8-34-113.2 | Y | | 240 hours/year and 5 consecutive days | BAAQMD 8-34-501.1 | P/D | Operating Records |
| Startup Shutdown or Mal-function Pro-cedures | 40 CFR 63.6(e) | Y | | 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 – A
## Applicable Limits and Compliance Monitoring Requirements
## S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-3 LANDFILL GAS FLARE, A-4 LANDFILL GAS FLARE, AND A-5 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 |
|---|---|---|---|---|---|---|---|
| Periods of Inopera-tion for Para-metric Monitors | BAAQMD 1-523.2 | Y | | 15 consecutive days/incident and 30 calendar days/12 month period | BAAQMD 1-523.4 | P/D | Operating Records for All Parametric Monitors (for gas flow and temperature monitors) |
| Contin-uous Monitors | 40 CFR 60.13(e) | Y | | Requires Continuous Operation except for breakdowns, repairs, calibration, and required span adjustments | 40 CFR 60.7(b) | P/D | Operating Records for All Continuous Monitors (for gas flow and temperature monitors) |
| Wellhead Pressure | BAAQMD 8-34-305.1 | Y | | < 0 psig | BAAQMD 8-34-414, 501.9, and 505.1 | P/M | Monthly Inspection and Records |
| Temper-ature of Gas at Wellhead | BAAQMD 8-34-305.2 | Y | | < 55 °C (131 °F) (Wells listed in BAAQMD Condition # 16065, Part 5a are excluded from this limit.) | BAAQMD 8-34-414, 501.9 and 505.2 and | P/M | Monthly Inspection and Records |
| Temper-ature of Gas at Wellhead | BAAQMD Condition # 16065, Part 5a | Y | | ≤ 140 °F (This limit applies only to wells listed in BAAQMD Condition # 16065, Part 5a) | BAAQMD 8-34-414, 501.9 and 505.2 and | 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-3 LANDFILL GAS FLARE, A-4 LANDFILL GAS FLARE, AND A-5 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 Concentrations at Wellhead | BAAQMD 8-34-305.3 or 305.4 | Y | | $N_2 < 20\%$ **OR** $O_2 < 5\%$ (Wells listed in BAAQMD Condition # 16065, Part 5b are excluded from these limits.) | BAAQMD 8-34-414, 501.9 and 505.3 or 505.4 | P/M | Monthly Inspection and Records |
| Gas Concentrations at Header | BAAQMD Condition # 16065, Part 5b | Y | | $O_2 \leq 5\%$ by volume, dry basis **AND** $CH_4 \geq 35\%$ by volume, dry basis | BAAQMD Condition # 16065, Part 5b | 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 Compounds Plus Methane) | BAAQMD 8-34-301.2 | Y | | Component Leak Limit: 1000 ppmv as methane at 1 cm from component (see BAAQMD Condition # 16065, Part 5c for clarifications about vaults) | BAAQMD 8-34-501.6 and 503 and BAAQMD Condition # 16065, Part 15c | 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-3 LANDFILL GAS FLARE, A-4 LANDFILL GAS FLARE, AND A-5 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 | | Surface Leak Limit: 500 ppmv as methane at 2 inches above surface (see BAAQMD Condition # 16065, Part 5c for clarifications about vaults) | BAAQMD 8-34-415, 416, 501.6, 506 and 510 and BAAQMD Condition # 16065, Part 15c | P/M, Q, and E | Monthly Visual Inspection of Cover, Quarterly Inspection of Surface with Portable Analyzer, Reinspec-tions as Needed, 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 flares only) | BAAQMD 8-34-412 and 501.4 and BAAQMD Condition # 16065, Parts 13 and 15c | P/A | Source Tests and Records |
| Temper-ature of Combus-tion Zone (CT) | BAAQMD Condition # 16065, Part 7 | Y | | CT $\geq$ 1400 °F, averaged over any 3-hour period (applies to each flare, A-3, A-4, and A-5) | BAAQMD 8-34-501.3 and 507 | C | Temperature Sensor and Recorder |
| Opacity | BAAQMD 6-301 | Y | | Ringelmann No. 1 for < 3 minutes/hour (applies to flares only) | None | N | NA |
| FP | BAAQMD 6-310 | Y | | $\leq$ 0.15 grains/dscf (applies to flares only) | None | N | NA |

# VII. Applicable Limits and Compliance Monitoring Requirements

## Table VII – A
## Applicable Limits and Compliance Monitoring Requirements
## S-1 LANDFILL AND GAS COLLECTION SYSTEM, A-3 LANDFILL GAS FLARE, A-4 LANDFILL GAS FLARE, AND A-5 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: $\leq$ 0.5 ppm for 3 minutes and $\leq$ 0.25 ppm for 60 min. and $\leq$0.05 ppm for 24 hours (applies to flares only) | None | N | NA |
| $SO_2$ | BAAQMD Regulation 9-1-302 | Y | | $\leq$ 300 ppm (dry basis) (applies to flares only) | BAAQMD Condition # 16065, Parts 12 and 15c | P/Q | Sulfur Analysis of Landfill Gas and Records |
| Landfill Gas Sulfur Content | BAAQMD Condition # 16065, Part 12 | Y | | $\leq$ 1300 ppmv, expressed as $H_2S$ | BAAQMD Condition # 16065, Parts 12 and 15c | P/Q | Sulfur Analysis of Landfill Gas and Records |
| $H_2S$ | BAAQMD 9-2-301 | N | | Property Line Ground Level Limits: $\leq$ 0.06 ppm, averaged over 3 minutes and $\leq$ 0.03 ppm, averaged over 60 minutes | None | N | NA |
| $NO_x$ | BAAQMD Condition # 16065, Part 9a | Y | | $\leq$ 33 ppmv, at 15% $O_2$, dry basis (applies to A-3 Flare only) | BAAQMD Condition # 16065, Parts 13 and 15c | P/A | Source Tests and Records |
| $NO_x$ | BAAQMD Condition # 16065, Part 9b-c | Y | | $\leq$ 15 ppmv, at 15% $O_2$, dry basis (applies to A-4 and A-5 Flares only) | BAAQMD Condition # 16065, Parts 13 and 15c | P/A | Source Tests and Records |
| CO | BAAQMD Condition # 16065, Part 10a-c | Y | | $\leq$ 83 ppmv, at 15% $O_2$, dry basis (applies to A-3, A-4, and A-5 Flares only) | BAAQMD Condition # 16065, Parts 13 and 15c | 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-3 LANDFILL GAS FLARE, A-4 LANDFILL GAS FLARE, AND A-5 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 |
|---|---|---|---|---|---|---|---|
| Vinyl Chloride | BAAQMD Condition # 16065, Part 11 | Y | | $\leq$ 48 ppmv, at each flare stack | BAAQMD Condition # 16065, Parts 13 and 15c | P/A | Source Tests and Records |

# VII. Applicable Limits and Compliance Monitoring Requirements

## Table VII – B
## Applicable Limits and Compliance Monitoring Requirements
## S-11 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 6-303 | Y | | Ringelmann No. 2 for < 3 minutes/hour | None | N | NA |
| FP | BAAQMD Regulation 6-310 | Y | | $\leq$ 0.15 grains/dscf | None | N | NA |
| $SO_2$ | BAAQMD Regulation 9-1-301 | Y | | Property Line Ground Level Limits: $\leq$ 0.5 ppm for 3 minutes and $\leq$ 0.25 ppm for 60 min. and $\leq$0.05 ppm for 24 hours | None | N | NA |
| $SO_2$ | BAAQMD Regulation 9-1-304 | Y | | Fuel Sulfur Limit: 0.5% | BAAQMD Condition # 19210, Part 5d | P/E | Vendor Certification |
| Operating Hours | BAAQMD Regulation 9-8-330.2 and BAAQMD Condition # 19210, Part 1 | N | | Operating Hours for Reliability-Related Activities: $\leq$ 100 hours in a calendar year | BAAQMD Regulation 9-8-530 and BAAQMD Condition # 19210, Parts 4 and 5a-c | P/C, M | Meter to Record either Operating Hours or Fuel Usage and Records |

# VII. Applicable Limits and Compliance Monitoring Requirements

## Table VII – C
## Applicable Limits and Compliance Monitoring Requirements
## S-12 MICROTURBINE AND S-13 MICROTURBINE

| Type of Limit | Citation of Limit | FE Y/N | Future Effective Date | Limit | Monitoring Requirement Citation | Monitoring Frequency (P/C/N) | Monitoring Type |
|---|---|---|---|---|---|---|---|
| ~~Landfill Gas Through-put~~ Gas Flow | BAAQMD Condition # 20297, Part 1 | Y | ~~upon initial startup of S-12 or S-13~~ | Landfill Gas Throughput to Each Microturbine: ≤ 76,200 $ft^3$ per day | ~~BAAQMD 8-34-501.10 and 508 and~~ BAAQMD Condition # 20297, Parts 1a ~~or 1b~~ d | C, P/M | ~~Gas Flow Meter and Recorder (every 15 minutes)~~ Data Acquisition System, Methane Tests, Calculations, and Records |
| ~~Collection and Control Systems Shutdown Time~~ | ~~BAAQMD 8-34-113.2~~ | ~~Y~~ | ~~upon initial startup of S-12 or S-13~~ | ~~240 hours/year and 5 consecutive days~~ | ~~BAAQMD 8-34-501.2~~ | ~~P/D~~ | ~~Operating Records~~ |
| Startup Shutdown or Malfunction Procedures | 40 CFR 63.6(e) | Y | ~~upon initial startup of S-12 or S-13~~ | Minimize Emissions by Implementing SSM Plan | 40 CFR 63.1980(a-b) | P/E | Records (all occurrences, duration of each, corrective actions) |
| Periods of Inoperation for Parametric Monitors | BAAQMD 1-523.2 | Y | ~~upon initial startup of S-12 or S-13~~ | 15 consecutive days/incident and 30 calendar days/12 month period | BAAQMD 1-523.4 | P/D | Operating Records for All Parametric Monitors |

# VII. Applicable Limits and Compliance Monitoring Requirements

## Table VII – C
## Applicable Limits and Compliance Monitoring Requirements
## S-12 MICROTURBINE AND S-13 MICROTURBINE

| Type of Limit | Citation of Limit | FE Y/N | Future Effective Date | Limit | Monitoring Requirement Citation | Monitoring Frequency (P/C/N) | Monitoring Type |
|---|---|---|---|---|---|---|---|
| Continuous Monitors | 40 CFR 60.13(e) | Y | ~~upon initial startup of S-12 or S-13~~ | 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 |
| TOC (Total Organic Compounds Plus Methane) | BAAQMD 8-34-301.2 | Y | ~~upon initial startup of S-12 or S-13~~ | 1000 ppmv as methane (component leak limit) | BAAQMD 8-34-501.6 and 503 and BAAQMD Condition # 16065, Part 15c | P/Q | Quarterly Inspection of control system components with Portable Analyzer and Records |
| Non-Methane Organic Compounds (NMOC) | BAAQMD 8-34-301.4 and BAAQMD Condition # 20297, Part 4 | Y | ~~upon initial startup of S-12 or S-13~~ | 98% removal by weight OR < 120 ppmv, dry basis @ 3% $O_2$, expressed as methane | BAAQMD 8-34-412 and 501.4 and BAAQMD Condition # 20297, Parts 6 and 8 | P/A | Source Tests and Records |
| Temperature of Combustion Zone (CT) ~~or Other APCO-Approved Paramater~~ | BAAQMD Condition # 20297, Part 7 | Y | ~~105 days after initial startup of S-12 or S-13~~ | CT $\geq$ ~~[to be established by initial source test]~~1500 °F, averaged over any 3-hour period~~; or other alternative parameter limits approved by APCO~~ | BAAQMD 8-34-501.11 and 509 and BAAQMD Condition # 20297, Part 5 | C or P/M | Temperature Sensor and Recorder or other APCO-Approved Monitor |
| Opacity | BAAQMD 6-301 | Y | ~~upon initial startup of S-12 or S-13~~ | Ringelmann No. 1 for < 3 minutes/hour | None | N | NA |

# VII. Applicable Limits and Compliance Monitoring Requirements

## Table VII – C
## Applicable Limits and Compliance Monitoring Requirements
## S-12 MICROTURBINE AND S-13 MICROTURBINE

| Type of Limit | Citation of Limit | FE Y/N | Future Effective Date | Limit | Monitoring Requirement Citation | Monitoring Frequency (P/C/N) | Monitoring Type |
|---|---|---|---|---|---|---|---|
| FP | BAAQMD 6-310 | Y | ~~upon initial startup of S-12 or S-13~~ | ≤ 0.15 grains/dscf | None | N | NA |
| $SO_2$ | BAAQMD 9-1-301 | Y | ~~upon initial startup of S-12 or S-13~~ | 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 flares only) | None | N | NA |
| $SO_2$ | BAAQMD Regulation 9-1-302 | Y | ~~upon initial startup of S-12 or S-13~~ | ≤ 300 ppm (dry basis) (applies to flares only) | BAAQMD Condition # 16065, Parts 12 and 15c | P/Q | Sulfur Analysis of Landfill Gas and Records |
| $H_2S$ | BAAQMD 9-2-301 | N | ~~upon initial startup of S-12 or S-13~~ | Property Line Ground Level Limits: ≤ 0.06 ppm, averaged over 3 minutes and ≤ 0.03 ppm, averaged over 60 minutes | None | N | NA |
| $NO_x$ | BAAQMD Condition # 20297, Part 2 | Y | ~~upon initial startup of S-12 or S-13~~ | ≤ 10 pounds per day or ≤ 78 ppmv, at 15% $O_2$, dry basis | BAAQMD Condition # 20297, Parts 6 and 8 | P/A | Source Tests and Records |
| CO | BAAQMD Condition # 20297, Part 3 | Y | ~~upon initial startup of S-12 or S-13~~ | ≤ 10 pounds per day or ≤ 128 ppmv, at 15% $O_2$, dry basis | BAAQMD Condition # 20297, Parts 6 and 8 | P/A | Source Tests and Records |

# VII. Applicable Limits and Compliance Monitoring Requirements

## Table VII – D
## Applicable Limits and Compliance Monitoring Requirements
## S-14 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 6-303 | Y | | Ringelmann No. 2 for < 3 minutes/hour | None | N | NA |
| FP | BAAQMD Regulation 6-310 | Y | | $\leq$ 0.15 grains/dscf | None | N | NA |
| $SO_2$ | BAAQMD Regulation 9-1-301 | Y | | Property Line Ground Level Limits: $\leq$ 0.5 ppm for 3 minutes and $\leq$ 0.25 ppm for 60 min. and $\leq$0.05 ppm for 24 hours | None | N | NA |
| $SO_2$ | BAAQMD Regulation 9-1-304 | Y | | Fuel Sulfur Limit: 0.5% | BAAQMD Condition # 21195, Part 4d | P/E | Vendor Certification |
| $SO_2$ | BAAQMD Condition # 21195, Part 1 | Y | | Fuel Sulfur Limit: $\leq$ 0.05% | BAAQMD Condition # 21195, Part 4d | P/E | Vendor Certification |
| Operating Hours | BAAQMD Regulation 9-8-330.2 and BAAQMD Condition # 21195, Part 2b | N | | Operating Hours for Reliability-Related Activities: $\leq$ 100 hours in a calendar year | BAAQMD Regulation 9-8-530 and BAAQMD Condition # 21195, Parts 3 and 4a-c | P/C, M | Meter to Record either Operating Hours or Fuel Usage and 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 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 6-301 | Ringelmann No. 1 Limitation | Manual of Procedures, Volume I, Evaluation of Visible Emissions |
| BAAQMD 6-303 | Ringelmann No. 2 Limitation | Manual of Procedures, Volume I, Evaluation of Visible Emissions |
| BAAQMD 6-310 | Particulate Weight Limitation | Manual of Procedures, Volume IV, ST-15, Particulate |
| BAAQMD 8-34-301.2 | Collection and Control System Leak Limit | EPA Reference Method 21, Determination of Volatile Organic Compound Leaks |
| BAAQMD 8-34-301.3 | NMOC Emission Limits for Flares | Manual of Procedures, Volume IV, ST-14, Oxygen, Continuous Sampling; and<br>Manual of Procedures, Volume IV, ST-7, Organic Compounds; or<br>EPA Reference Method 18, 25, 25A, or 25C |
| BAAQMD 8-34-301.4 | NMOC Emission Limits for Other Emission Control Systems | Manual of Procedures, Volume IV, ST-14, Oxygen, Continuous Sampling; and<br>Manual of Procedures, Volume IV, ST-7, Organic Compounds; or<br>EPA Reference Method 18, 25, 25A, or 25C |
| BAAQMD 8-34-303 | Landfill Surface Leak Limit | EPA Reference Method 21, Determination of Volatile Organic Compound Leaks |
| BAAQMD 8-34-305.1 | Gauge Pressure Limit at Wellheads | APCO Approved Device |
| BAAQMD 8-34-305.2 | Temperature Limit for Gas at Wellheads | APCO Approved Device |
| BAAQMD 8-34-305.3 | Nitrogen Concentration in Gas at Wellheads | EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources |
| BAAQMD 8-34-305.4 | Oxygen Concentration in Gas at Wellheads | 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 8-34-412 | 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 | Fuel Sulfur Content Limit | 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 |
| BAAQMD Condition # 16065, Part 5a | Temperature Limit for Gas at Wellheads | APCO Approved Device |
| BAAQMD Condition # 16065, Part 5b | Oxygen Concentration Limit for Landfill Gas at Main Header | EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources |
| BAAQMD Condition # 16065, Part 5b | Methane Concentration Limit for Landfill Gas at Main Header | EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources |
| BAAQMD Condition # 16065, Part 7 | Combustion Zone Temperature Limits for Flares | APCO Approved Device |

# VIII. Test Methods

## Table VIII
## Test Methods

| Applicable Requirement | Description of Requirement | Acceptable Test Methods |
|---|---|---|
| BAAQMD Condition # 16065, Part 8 | Landfill Gas Throughput Limit for Flares | APCO Approved Gas Flow Meter and Recorder |
| BAAQMD Condition # 16065, Part 9 | $NO_x$ Emission Limits for Flares | Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling |
| BAAQMD Condition # 16065, Part 10 | CO Emission Limits for Flares | Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling |
| BAAQMD Condition # 16065, Part 11 | Vinyl Chloride Limit for Flares | EPA Reference Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography; or Manual of Procedures, Volume IV, ST-29, Vinyl Chloride |
| BAAQMD Condition # 16065, Part 12 | Landfill Gas Sulfur Content Limit | Draeger Tube measuring $H_2S$: used in accordance with manufacturer's recommended procedures |
| BAAQMD Condition # 16065, Part 13 | Compliance Demonstration Test | Manual of Procedures, Volume IV, ST-17, Stack Gas Velocity and Volumetric Flow Rate; ST-23 Water Vapor; ST-14, Oxygen, Continuous Sampling; ST-13A, Oxides of Nitrogen, Continuous Sampling; ST-6, Carbon Monoxide, Continuous Sampling; and Manual of Procedures, Volume IV, ST-7, Organic Compounds or EPA Reference Methods 18, 25, 25A, or 25C |
| BAAQMD Condition # 16065, Part 14 | Gas Characterization Analyses | EPA Reference Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography |
| BAAQMD Condition # 20297, Part 1 | Landfill Gas Throughput Limit for Microturbines | APCO Approved ~~Gas Flow Meter and Recorder and Operating~~ Methane Measurement, Calculation Procedures, and Records as described in Condition # 20297, Parts 1a-d |
| BAAQMD Condition # 20297, Part 2 | $NO_x$ Emission Limits for Microturbines | Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling |
| BAAQMD Condition # 20297, Part 3 | CO Emission Limits for Microturbines | Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling |

# VIII. Test Methods

## Table VIII
## Test Methods

| Applicable Requirement | Description of Requirement | Acceptable Test Methods |
|---|---|---|
| BAAQMD Condition # 20297, Part 4 | NMOC Emission Limits for Microturbines | Manual of Procedures, Volume IV, ST-14, Oxygen, Continuous Sampling; and<br>Manual of Procedures, Volume IV, ST-7, Organic Compounds; or EPA Reference Method 18, 25, 25A, or 25C |
| BAAQMD Condition # 20297, Part 6 | Compliance Demonstration Test | Manual of Procedures, Volume IV, ST-17, Stack Gas Velocity and Volumetric Flow Rate; ST-23 Water Vapor; ST-14, Oxygen, Continuous Sampling; ST-13A, Oxides of Nitrogen, Continuous Sampling; ST-6, Carbon Monoxide, Continuous Sampling; and Manual of Procedures, Volume IV, ST-7, Organic Compounds or EPA Reference Methods 18, 25, 25A, or 25C |
| BAAQMD Condition # 20297, Part 7 | Combustion Zone Temperature Limit for Microturbines | APCO Approved Device |

# IX. PERMIT SHIELD

**Not applicable**

# X. REVISION HISTORY

**Title V Permit Issuance (Application #2620):** **July 28, 2003**

**Administrative Revision (no application):** **September 10, 2003**

- Add applicable permit term dates and due dates to Sections I.B, I.F, and I.G

**Administrative Revision (Application #8445):** **April 1, 2004**

- Update standard text in Section I.B.1 and Section III
- Switch the order of Sections IX and X for consistency with other MFR permits

**Minor Revision (Application #8445):** **June 17, 2004**

- Add S-14 to Table II-A in Section II
- Add Table IV-D for S-14 in Section IV
- Add Condition # 21195 for S-14 in Section VI
- Add Table VII-D for S-14 in Section VII
- Delete future effective dates that have passed from Tables IV-A, IV-C, VII-A, and VII-C
- Update Revision History in Section X

**Minor Revision (Application # 11467):** **[insert approval date]**

- Delete future effective dates and other text in Tables II-A, IV-C, and VII-C to reflect that the S-12 and S-13 Microturbines are now installed and operating.
- Update the Regulation 8, Rule 34 amendment date in Tables IV-A and IV-C.
- Add a custom Schedule of Compliance to Section V for the gas collection system shutdown events that are necessary to complete the installation and initial commissioning of the ALZA landfill gas treatment and compression station and associated process control systems.
- Modify Condition # 16065, Part 2 to allow landfill gas to be burned in off-site IC engines.
- Modify Condition # 20297, Part 1, Table VII-C, and Table VIII to clarify the applicability of the landfill gas throughput limit and to correct the related monitoring requirements and calculation procedures.

## X. Revision History

- Revise Condition # 20297, Parts 5-7 and Table VII-C by inserting the specific combustion zone temperature limit established by the initial compliance demonstration tests and by deleting obsolete text.
- Update Revision History in Section X.
- Update website address in Section XII.

# XI. GLOSSARY

**ACT**
Federal Clean Air Act

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

**ARB**
Air Resources Board

**BAAQMD**
Bay Area Air Quality Management District

**BACT**
Best Available Control Technology

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

**CAA**
The federal Clean Air Act

**CAAQS**
California Ambient Air Quality Standards

**CAPCOA**
California Air Pollution Control Officers Association

**CARB**
California Air Resources Board (same as ARB)

**CEQA**
California Environmental Quality Act

**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

**CO**
Carbon Monoxide

# XI. Glossary

**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

**EG**
Emission Guidelines

**EO**
Executive Order

**EPA**
The federal Environmental Protection Agency.

**Excluded**
Not subject to any District regulations.

**Federally Enforceable, FE**
All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60 (NSPS), Part 61 (NESHAPs), Part 63 (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.

**GDF**
Gasoline Dispensing Facility

**H2S or $H_2S$**
Hydrogen Sulfide

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

# XI. Glossary

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

**LFG**
Landfill gas

**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.

**MSW**
Municipal solid waste

**MW**
Molecular weight

**N2 or $N_2$**
Nitrogen

**NA**
Not Applicable

**NAAQS**
National Ambient Air Quality Standards

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

# XI. Glossary

**NMHC**
Non-methane Hydrocarbons (Same as NMOC)

**NMOC**
Non-methane Organic Compounds (Same as NMHC)

**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

**PM**
Particulate Matter

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

# XI. Glossary

**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

**RMP**
Risk Management Plan

**S**
Sulfur

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

**SO2 or $SO_2$**
Sulfur dioxide

**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.

**THC**
Total Hydrocarbons (NMHC + Methane)

**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 (NMOC + Methane, Same as THC)

**TPH**
Total Petroleum Hydrocarbons

# XI. Glossary

**TRMP**
Toxic Risk Management Policy

**TRS**
Total Reduced Sulfur

**TSP**
Total Suspended Particulate

**VOC**
Volatile Organic Compounds

**Symbols:**

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

**Units of Measure:**

| | | |
|---|---|---|
| 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 |
| lb | = | pound |
| lbmol | = | pound-mole |
| $m^2$ | = | square meter |
| $m^3$ | = | cubic meters |
| Mg | = | mega grams |
| min | = | minute |

# XI. Glossary

| | | |
|---|---|---|
| mm | = | millimeter |
| MM | = | million |
| MM BTU | = | million BTU |
| MMcf | = | million cubic feet |
| 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~~
http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions