

# Bay Area Air Quality Management District

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

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**Final**

## MAJOR FACILITY REVIEW PERMIT

**Issued To:**  
**City of Santa Clara**  
**Facility #A3464**

**Facility Address:**  
5401 Lafayette  
Santa Clara, CA 95050

**Mailing Address:**  
1500 Warburton Avenue  
Santa Clara, CA 95010

**Responsible Official**  
Richard Mauck, Director of Streets & Auto.  
(408) 970-0875

**Facility Contact**  
Dave Staub, Site Manager  
(408) 984-3080

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

BAAQMD Permit Division Contact:  
Robert T. Hull

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

Signed by Jack P. Broadbent  
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Jack P. Broadbent, Executive Officer/Air Pollution Control Officer

January 28, 2007  
\_\_\_\_\_  
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 1/16/99);
- 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 5/2/01).

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

1. This Major Facility Review Permit was issued on March 6, 2003, and expires on February 29, 2008. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than August 31, 2007 and no earlier than February 28, 2007. **If a complete application for renewal has not been submitted in accordance with this deadline, the facility may not operate after February 29, 2008.** (Regulation 2-6-307, 404.2, & 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)
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

## **I. Standard Conditions**

- 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)

### **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)

## I. Standard Conditions

### 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 March 6, 2003 to August 31, 2003. The report shall be submitted by September 30, 2003. Subsequent reports shall be for the following periods: September 1st through February 28th or 29<sup>th</sup> and March 1st through August 31st, and are due on the last day of the month after the end of the reporting period. All instances of non-compliance shall be clearly identified in these reports. The reports shall be certified by the responsible official as true, accurate, and complete. In addition, all instances of non-compliance with the permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions. The reports shall be sent to the following address:

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

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

### G. Compliance Certification

Compliance certifications shall be submitted annually by the responsible official of this facility to the Bay Area Air Quality Management District and to the Environmental Protection Agency. The certification period will be March 1st to February 28<sup>th</sup> or 29<sup>th</sup>. The certification shall be submitted by March 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

## **I. Standard Conditions**

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

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

### **H. Emergency Provisions**

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

### **I. Severability**

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

### **J. Miscellaneous Conditions**

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-2 | City of Santa Clara Sanitary Landfill, Closed Solid Waste Disposal Site with Active Landfill Gas Collection System | Closed Class III (non-hazardous) Solid Waste Disposal Site |       | Est. Cumulative Waste In Place = 5.50 million tons<br>Gas Collection Wells = 81 |

**Table II B – Abatement Devices**

| A-# | Description        | Source(s) Controlled | Applicable Requirement                 | Operating Parameters   | Limit or Efficiency   |
|-----|--------------------|----------------------|--|--|---|
| A-2 | Landfill Gas Flare | S-2                  | BAAQMD 8-34-301.3, see also Table IV-A | Minimum combustion zone temperature of 1400 °F, see also Table VII-A | 98% destruction of THC and either 98% destruction of NMOC or < 30 ppmv of NMOC, as CH <sub>4</sub> , at 3% O <sub>2</sub> , 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 parenthesis 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:  
<http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions>

**NOTE:**

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

**Table III  
 Generally Applicable Requirements**

| <b>Applicable Requirement</b> | <b>Regulation Title or Description of Requirement</b> | <b>Federally Enforceable (Y/N)</b> |
|-------------------------------|---|------------------------------------|
| 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                                  |



### III. Generally Applicable Requirements

**Table III  
 Generally Applicable Requirements**

| <b>Applicable Requirement</b>                           | <b>Regulation Title or Description of Requirement</b>  | <b>Federally Enforceable (Y/N)</b> |
|---|--|------------------------------------|
| BAAQMD Regulation 6                                     | Particulate Matter and Visible Emissions (12/19/90)  | Y                                  |
| BAAQMD Regulation 7                                     | Odorous Substances (3/17/82)   | N                                  |
| BAAQMD Regulation 8, Rule 1                             | Organic Compounds - General Provisions (6/15/94)   | Y                                  |
| BAAQMD Regulation 8, Rule 2                             | Organic Compounds – Miscellaneous Operations (6/15/94)   | Y                                  |
| BAAQMD Regulation 8, Rule 3                             | Organic Compounds - Architectural Coatings (12/20/95)  | 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 <sup>1</sup>                     |
| 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 (12/20/95)   | N                                  |
| BAAQMD Regulation 11, Rule 1                            | Hazardous Pollutants – Lead (3/17/82)  | N                                  |
| BAAQMD Regulation 11, Rule 2                            | Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing (10/7/98)                           | Y                                  |
| BAAQMD Regulation 11, Rule 14                           | Hazardous Pollutants - Asbestos Containing Serpentine (7/17/91)  | Y                                  |
| 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                                  |
| 40 CFR Part 61, Subpart M                               | National Emission Standards for Hazardous Air Pollutants – National Emission Standard for Asbestos (6/19/95) | Y                                  |

#### IV. SOURCE-SPECIFIC APPLICABLE REQUIREMENTS

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

The dates in parenthesis 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:

<http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions>

All other text may be found in the regulations themselves.

**Table IV – A**  
**Source-specific Applicable Requirements**  
**S-2: CLOSED LANDFILL**  
**A-2: LANDFILL GAS FLARE**

| Applicable Requirement     | Regulation Title or Description of Requirement                | Federally Enforceable (Y/N) | Future Effective Date |
|----------------------------|---|-----------------------------|-----------------------|
| <b>BAAQMD Regulation 1</b> | <b>General Provisions and Definitions (5/2/01)</b>            |                             |                       |
| 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   | Y                           |                       |
| 1-523.5                    | Maintenance and Calibration                                   | Y                           |                       |
| <b>SIP Regulation 1</b>    | <b>General Provisions and Definitions (6/28/99)</b>           |                             |                       |
| 1-523                      | Parametric Monitoring and Recordkeeping Procedures            | Y <sup>1</sup>              |                       |
| 1-523.3                    | Reports of Violations   | Y <sup>1</sup>              |                       |

#### IV. Source-Specific Applicable Requirements

**Table IV – A**  
**Source-specific Applicable Requirements**  
**S-2: CLOSED LANDFILL**  
**A-2: LANDFILL GAS FLARE**

| <b>Applicable Requirement</b>       | <b>Regulation Title or Description of Requirement</b>                     | <b>Federally Enforceable (Y/N)</b> | <b>Future Effective Date</b> |
|-------------------------------------|---|------------------------------------|------------------------------|
| <b>BAAQMD Regulation 6</b>          | <b>Particulate Matter and Visible Emissions (12/19/1990)</b>              |                                    |                              |
| 6-301                               | Ringelmann No. 1 Limitation (applies to A-2 Flare only)                   | Y                                  |                              |
| 6-305                               | Visible Particles (applies to A-2 Flare only)                             | Y                                  |                              |
| 6-310                               | Particle Weight Limitation (applies to A-2 Flare only)                    | Y                                  |                              |
| 6-401                               | Appearance of Emissions   | Y                                  |                              |
| <b>BAAQMD Regulation 8, Rule 34</b> | <b>Organic Compounds – Solid Waste Disposal Sites (10/6/1999)</b>         |                                    |                              |
| 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                                  |                              |
| 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                                  |                              |

## IV. Source-Specific Applicable Requirements

**Table IV – A**  
**Source-specific Applicable Requirements**  
**S-2: CLOSED LANDFILL**  
**A-2: LANDFILL GAS FLARE**

| <b>Applicable Requirement</b> | <b>Regulation Title or Description of Requirement</b>     | <b>Federally Enforceable (Y/N)</b> | <b>Future Effective Date</b> |
|-------------------------------|---|------------------------------------|------------------------------|
| 8-34-301.2                    | Collection and Control Systems Leak Limitations           | Y                                  |                              |
| 8-34-301.3                    | Limits for Enclosed Flares                                | Y                                  |                              |
| 8-34-303                      | Landfill Surface Requirements                             | Y                                  |                              |
| 8-34-304                      | Gas Collection System Installation Requirements           | Y                                  |                              |
| 8-34-304.1                    | Based on Waste Age For Inactive or Closed Areas           | Y                                  |                              |
| 8-34-304.4                    | Based on NMOC Emission Rate                               | Y                                  |                              |
| 8-34-305                      | Wellhead Requirements                                     | Y                                  |                              |
| 8-34-305.1                    | Operate Under Vacuum                                      | Y                                  |                              |
| 8-34-305.2                    | Temperature < 55 °C                                       | Y                                  |                              |
| 8-34-305.3                    | Nitrogen < 20% or   | Y                                  |                              |
| 8-34-305.4                    | Oxygen < 5%   | Y                                  |                              |
| 8-34-408                      | 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                                  |                              |
| 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                                  |                              |

#### IV. Source-Specific Applicable Requirements

**Table IV – A**  
**Source-specific Applicable Requirements**  
**S-2: CLOSED LANDFILL**  
**A-2: LANDFILL GAS FLARE**

| <b>Applicable Requirement</b>      | <b>Regulation Title or Description of Requirement</b>                                   | <b>Federally Enforceable (Y/N)</b> | <b>Future Effective Date</b> |
|------------------------------------|---|------------------------------------|------------------------------|
| 8-34-415.11                        | Operational Due Date for Expansion  | Y                                  |                              |
| 8-34-416                           | Cover Repairs   | Y                                  |                              |
| 8-34-501                           | Operating Records   | Y                                  |                              |
| 8-34-501.1                         | Collection System Downtime  | Y                                  |                              |
| 8-34-501.2                         | Emission Control System Downtime  | Y                                  |                              |
| 8-34-501.3                         | Continuous Temperature Records for Enclosed Combustors                                  | Y                                  |                              |
| 8-34-501.4                         | Testing   | Y                                  |                              |
| 8-34-501.6                         | Leak Discovery and Repair Records   | Y                                  |                              |
| 8-34-501.9                         | 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                                  |                              |
| 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 Recorded   | Y                                  |                              |
| 8-34-508                           | Gas Flow Meter  | Y                                  |                              |
| 8-34-510                           | Cover Integrity Monitoring  | Y                                  |                              |
| <b>BAAQMD Regulation 9, Rule 1</b> | <b>Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/1995)</b>                        |                                    |                              |
| 9-1-301                            | Limitations on Ground Level Concentrations (applies to A-2 Flare only)                  | Y                                  |                              |
| 9-1-302                            | General Emission Limitations (applies to A-2 Flare only)                                | Y                                  |                              |
| <b>BAAQMD Regulation 9, Rule 2</b> | <b>Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/1999)</b>                      |                                    |                              |
| 9-2-301                            | Limitations on Hydrogen Sulfide   | N                                  |                              |

## IV. Source-Specific Applicable Requirements

**Table IV – A**  
**Source-specific Applicable Requirements**  
**S-2: CLOSED LANDFILL**  
**A-2: LANDFILL GAS FLARE**

| <b>Applicable Requirement</b>     | <b>Regulation Title or Description of Requirement</b>   | <b>Federally Enforceable (Y/N)</b> | <b>Future Effective Date</b> |
|-----------------------------------|---|------------------------------------|------------------------------|
| <b>40 CFR Part 60, Subpart A</b>  | <b>Standards of Performance for New Stationary Sources – General Provisions (5/4/1998)</b>  |                                    |                              |
| 60.4(b)                           | Requires Submission of Requests, Reports, Applications, and Other Correspondence to the Administrator   | Y                                  |                              |
| 60.7                              | Notification and Record Keeping   | Y                                  |                              |
| 60.8                              | Performance Tests   | Y                                  |                              |
| 60.11                             | Compliance with Standards and Maintenance Requirements  | Y                                  |                              |
| 60.11(a)                          | Compliance determined by performance tests  | Y                                  |                              |
| 60.11(d)                          | Control devices operated using good air pollution control practice  | Y                                  |                              |
| 60.12                             | Circumvention   | Y                                  |                              |
| 60.13                             | Monitoring Requirements   | Y                                  |                              |
| 60.13(a)                          | Applies to all continuous monitoring systems  | Y                                  |                              |
| 60.13(b)                          | Monitors shall be installed and operational before performing performance tests   | Y                                  |                              |
| 60.13(e)                          | Continuous monitors shall operate continuously  | Y                                  |                              |
| 60.13(f)                          | Monitors shall be installed in proper locations   | Y                                  |                              |
| 60.13(g)                          | Requires multiple monitors for multiple stacks  | Y                                  |                              |
| 60.14                             | Modification  | Y                                  |                              |
| 60.15                             | Reconstruction  | Y                                  |                              |
| 60.19                             | General Notification and Reporting Requirements   | Y                                  |                              |
| <b>40 CFR Part 60, Subpart Cc</b> | <b>Standards of Performance for New Stationary Sources – Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills (2/24/1999)</b> |                                    |                              |
| 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                                  |                              |
| <b>40 CFR Part 62</b>             | <b>Approval and Promulgation of State Plans for Designated Facilities and Pollutants (9/20/2001)</b>  |                                    |                              |
| 62.1115                           | Identification of Sources   | Y                                  |                              |

#### IV. Source-Specific Applicable Requirements

**Table IV – A**  
**Source-specific Applicable Requirements**  
**S-2: CLOSED LANDFILL**  
**A-2: LANDFILL GAS FLARE**

| <b>Applicable Requirement</b>        | <b>Regulation Title or Description of Requirement</b>  | <b>Federally Enforceable (Y/N)</b> | <b>Future Effective Date</b> |
|--------------------------------------|--|------------------------------------|------------------------------|
| <b>40 CFR Part 63, Subpart A</b>     | <b>National Emission Standards for Hazardous Air Pollutants: General Provisions (3/16/1994)</b>  |                                    |                              |
| 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                                  |                              |
| <b>40 CFR Part 63, Subpart AAAAA</b> | <b>National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills (1/16/2003)</b>   |                                    |                              |
| 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                                  |                              |

## IV. Source-Specific Applicable Requirements

**Table IV – A**  
**Source-specific Applicable Requirements**  
**S-2: CLOSED LANDFILL**  
**A-2: LANDFILL GAS FLARE**

| <b>Applicable Requirement</b>  | <b>Regulation Title or Description of Requirement</b>   | <b>Federally Enforceable (Y/N)</b> | <b>Future Effective Date</b> |
|--------------------------------|---|------------------------------------|------------------------------|
| 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                                  |                              |
| <b>BAAQMD Condition # 2935</b> |   |                                    |                              |
| Part 1                         | Control requirements for collected landfill gas (Regulation 8-34-301)   | Y                                  |                              |
| Part 2                         | Landfill gas collection system operating requirements (Regulations 2-1-301, 8-34-301.1, 8-34-305)   | Y                                  |                              |
| Part 3                         | Flare heat input limits (Regulation 2-1-301)  | Y                                  |                              |
| Part 4                         | Flare temperature limit (Toxic Risk Management Policy and Regulation 8-34-301.3)  | Y                                  |                              |
| Part 5                         | Flare NOx concentration limit (Cumulative Increase)   | Y                                  |                              |
| Part 6                         | Flare CO concentration limit (Cumulative Increase)  | Y                                  |                              |
| Part 7                         | Landfill gas sulfur content limit and monitoring requirements (Regulation 9-1-302)  | Y                                  |                              |
| Part 8                         | Annual source test (Cumulative Increase, Toxic Risk Management Policy, and Regulations 2-1-301, 8-34-301.3, 8-34-412)   | Y                                  |                              |
| Part 9                         | Annual landfill gas characterization test (Toxic Risk Management Policy and Regulation 8-34-412)  | Y                                  |                              |
| Part 10                        | Record keeping requirements (Cumulative Increase and Regulations 2-1-301, 2-6-501, 8-34-301, and 8-34-501)  | Y                                  |                              |
| Part 11                        | Reporting periods and due dates for the Regulation 8, Rule 34 annual report (Regulation 8-34-411 and 40 CFR Part 63.1980(a))  | Y                                  |                              |



## **V. SCHEDULE OF COMPLIANCE**

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

## VI. PERMIT CONDITIONS

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

### **Condition #2935**

For: S-2, Closed Landfill with Landfill Gas Collection System;

For: A-2, Landfill Gas Flare

1. All collected landfill gas shall be vented to the Landfill Gas Flare A-2 and/or the IC Engine S-1 (Note: S-1 is owned and operated by Pacific Recovery Corporation, Site # A1583). Raw 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, or 118, and for inadvertent component or surface leaks that do not exceed the limits specified in 8-34-301.2 or 8-34-303. (basis: Regulation 8-34-301)
2. The landfill gas collection system shall be operated continuously. Wells shall not be shut off, disconnected, or removed from operation without written authorization from the APCO, unless the Permit Holder complies with all applicable requirements of Regulation 8, Rule 34, Sections 113, 117, and 118. The Permit Holder shall apply for and receive an Authority to Construct before modifying the landfill gas collection system. Increasing or decreasing the number of wells or collectors, or significantly changing the length of collectors, or the locations of wells or collectors are all considered to be modifications that are subject to the Authority to Construct requirement. The routine addition or modification of risers, laterals, or header pipes does not require an Authority to Construct.

The landfill is currently authorized for 81 vertical gas extraction wells. However, this total is subject to change pursuant to additions or removals made in accordance with an approved Authority to Construct. The Permit Holder has been issued an Authority to Construct for the following well modifications under Permit Application #14392:

- Replacement of up to (5) vertical extraction wells
- Decommissioning of up to (5) vertical extraction wells

Upon completion of the approved modifications, the total number of vertical extraction wells will be 76. (basis: Regulation 2-1-301, 8-34-301.1, 8-34-305)

## VI. Permit Conditions

### Condition #2935

For: S-2, Closed Landfill with Landfill Gas Collection System;

For: A-2, Landfill Gas Flare

3. The heat input to the A-2 Landfill Gas Flare shall not exceed 960 million BTU per day and shall not exceed 350,400 million BTU per year. In order to demonstrate compliance with this part, the Permit Holder shall calculate and record, on a monthly basis, the maximum daily and total monthly heat input to the flare based on (a) the landfill gas flow rate recorded pursuant to part 10.a., (b) the average methane concentration in the landfill gas based on the most recent source test, and (c) a high heating value of 1013 BTU per cubic foot of methane at 60 degrees F. (basis: Regulation 2-1-301)
4. The minimum combustion zone temperature for the flare shall be equal to the average combustion zone temperature determined during the most recent complying source test minus 50 degrees F, provided that the minimum combustion zone temperature is not less than 1400 degrees F. Effective [date of issuance of MFR Permit], the combustion zone temperature of the A-2 Landfill Gas Flare shall be maintained at a minimum of 1400 degrees Fahrenheit, averaged over any 3-hour period.

If a source test demonstrates compliance with all applicable requirements at a different temperature, the APCO will revised this minimum temperature limit in accordance with the administrative permit amendment procedures identified in Regulation 2-6-413. (basis: Toxic Risk Management Policy and Regulation 8-34-301.3)

5. Emissions of nitrogen oxides (NO<sub>x</sub>) from the A-2 Landfill Gas Flare shall not exceed 46 ppmv @ 3% O<sub>2</sub> (dry). This limit is equivalent to the 0.06 lb/MMBTU NO<sub>x</sub> emission factor provided by the manufacturer in the initial permit application for the flare. (basis: Cumulative Increase)
6. Emissions of carbon monoxide (CO) from the A-2 Landfill Gas Flare shall not exceed 2010 ppmv @ 3% O<sub>2</sub> (dry). This limit is equivalent to the 1.6 lb/MMBTU CO emission factor provided by the manufacturer in the initial permit application for the flare. (basis: Cumulative Increase)

## VI. Permit Conditions

### Condition #2935

For: S-2, Closed Landfill with Landfill Gas Collection System;

For: A-2, Landfill Gas Flare

7. Total reduced sulfur compounds in the collected landfill gas (measured as hydrogen sulfide) 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)
  
8. In order, to demonstrate compliance with Regulation 2-1-301 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 the Landfill Gas Flare (A-2). As a minimum, the annual source test shall determine the following:
  - a. landfill gas flow rate to the flare (dry basis);
  - b. concentrations (dry basis) of carbon dioxide (CO<sub>2</sub>), nitrogen (N<sub>2</sub>), oxygen (O<sub>2</sub>), total hydrocarbons (THC), methane (CH<sub>4</sub>), 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<sub>x</sub>, CO, THC, CH<sub>4</sub>, NMOC, and O<sub>2</sub> in the flare stack gas;
  - e. the THC, CH<sub>4</sub>, and NMOC destruction efficiencies achieved by the flare; and
  - f. the average combustion temperature in the flare during the test period.Annual source tests shall be conducted no sooner than 9 months and no later than 12 months after the previous source test. The Source Test Section of the District shall be contacted to obtain 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 to the Source Test Section within 45 days of the test date. (basis: Cumulative Increase, Toxic Risk Management Policy, Regulation 2-1-301, Regulations 8-34-301.3 and 8-34-412)

## VI. Permit Conditions

### Condition #2935

For: S-2, Closed Landfill with Landfill Gas Collection System;

For: A-2, Landfill Gas Flare

9. The Permit Holder shall conduct a characterization of the landfill gas concurrent with the annual source test required by part 8 above. The landfill gas sample shall be drawn from the main landfill gas header. In addition to the compounds listed in part 6.b, the landfill gas shall be analyzed for all organic compounds listed in the most recent version of EPA's AP-42 Table 2.4-1, excluding acetone. All concentrations shall be reported on a dry basis. The test report shall be submitted to the Compliance and Enforcement Division and the Source Test Section 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 for if the compounds have not been detected, have no significant impact on the cancer risk determination for the site, and have no significant impact on the hazard index determination for the site. (basis: Toxic Risk Management Policy and Regulation 8-34-412)
  
10. In order to demonstrate compliance with the above conditions, the Permit Holder shall maintain the following records in a District approved logbook.
  - a. Record the operating times and the landfill gas flow rate to the A-2 Landfill Gas Flare on a daily basis. Summarize these records on a monthly basis. Calculate and record the heat input to A-2, pursuant to part 3.
  - b. Maintain continuous records of the combustion zone temperature for the A-2 Landfill Gas Flare during all hours of operation.
  - c. Maintain records of all test dates and test results performed to maintain compliance parts 7, 8, and 9 above or to maintain compliance with any applicable rule or regulation.

All records shall be maintained on site 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, 2-1-301, 2-6-501, 8-34-301, and 8-34-501)

## VI. Permit Conditions

### Condition #2935

For: S-2, Closed Landfill with Landfill Gas Collection System;

For: A-2, Landfill Gas Flare

11. 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 August 31, 2003. This first increment report shall be submitted by September 30, 2003. The reporting periods and report submittal due dates for all subsequent increments of the Regulation 8-34-411 report shall be synchronized with the reporting periods and report submittal due dates for the semi-annual MFR Permit monitoring reports that are required by Section I.F. of the MFR Permit for this site. (basis: Regulation 8-34-411 and 40 CFR Part 63.1980(a))

## VII. APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS

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

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

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-2 INACTIVE OR CLOSED LANDFILL**  
**A-2 LANDFILL GAS FLARE**

| Type of Limit | Citation of Limit                       | FE Y/N | Future Effective Date | Limit  | Monitoring Requirement Citation      | Monitoring Frequency (P/C/N) | Monitoring Type   |
|---------------|---|--------|-----------------------|--|--------------------------------------|------------------------------|---|
| Gas Flow      | BAAQMD 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)  |
| Gas Flow      | BAAQMD Condition # 2935, Parts 1, and 2 | Y      |                       | Landfill gas collection system shall operate continuously and all collected gases shall be vented to a properly operating control system | BAAQMD Condition # 2935, Parts 10a-b | P/D                          | Records of Landfill Gas Flow Rates, Collection and Control Systems Downtime, and Collection System Components |

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-2 INACTIVE OR CLOSED LANDFILL**  
**A-2 LANDFILL GAS FLARE**

| Type of Limit                                  | Citation of Limit          | FE Y/N | Future Effective Date | Limit  | Monitoring Requirement Citation           | Monitoring Frequency (P/C/N) | Monitoring Type                               |
|--|----------------------------|--------|-----------------------|--|---|------------------------------|---|
| Collection and Control Systems Shutdown Time   | BAAQMD 8-34-113.2          | Y      |                       | 240 hours/year nor 5 consecutive days  | BAAQMD 8-34-501.1                         | P/D                          | Operating Records                             |
| Periods of Inoperation for Parametric 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 |
| Continuous Monitors                            | 40 CFR 60.13(e)            | Y      |                       | Requires Continuous Operation except for breakdowns, repairs, calibration, and required span adjustments | 40 CFR 60.7(b)                            | P/D                          | Operating Records for All Continuous Monitors |
| Wellhead Pressure                              | BAAQMD 8-34-305.1          | Y      |                       | < 0 psig   | BAAQMD 8-34-414, 501.9 and 505.1          | P/M                          | Monthly Inspection and Records                |
| Temperature of Gas at Wellhead                 | BAAQMD 8-34-305.2          | Y      |                       | < 55 °C  | BAAQMD 8-34-414, 501.9 and 505.2          | P/M                          | Monthly Inspection and Records                |
| Gas Concentrations at Wellhead                 | BAAQMD 8-34-305.3 or 305.4 | Y      |                       | N <sub>2</sub> < 20% <b>OR</b> O <sub>2</sub> < 5%   | BAAQMD 8-34-414, 501.9 and 505.3 or 505.4 | 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                                       |



## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-2 INACTIVE OR CLOSED LANDFILL**  
**A-2 LANDFILL GAS FLARE**

| Type of Limit                              | Citation of Limit | FE Y/N | Future Effective Date | Limit   | Monitoring Requirement Citation                  | Monitoring Frequency (P/C/N) | Monitoring Type   |
|--|-------------------|--------|-----------------------|---|--|------------------------------|---|
| 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      |                       | 1000 ppmv as methane (component leak limit)   | BAAQMD 8-34-501.6 and 503                        | P/Q                          | Quarterly Inspection of collection and control system components with portable analyzer and Records   |
| TOC  | BAAQMD 8-34-303   | Y      |                       | 500 ppmv as methane at 2 inches above surface | BAAQMD 8-34-415, 416, 501.6, 506, 506.3, and 510 | P/M, Q or A, and E           | Monthly Visual Inspection of Cover, Quarterly or Annual Inspection of surface with portable analyzer, Various Reinspection Times for Leaking Areas, and Records |

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-2 INACTIVE OR CLOSED LANDFILL**  
**A-2 LANDFILL GAS FLARE**

| Type of Limit                        | Citation of Limit               | FE Y/N | Future Effective Date | Limit   | Monitoring Requirement Citation                                    | Monitoring Frequency (P/C/N) | Monitoring Type                              |
|--------------------------------------|---------------------------------|--------|-----------------------|---|--|------------------------------|--|
| Non-Methane Organic Compounds (NMOC) | BAAQMD 8-34-301.3               | Y      |                       | 98% removal by weight<br>OR<br>< 30 ppmv,<br>dry basis @ 3% O <sub>2</sub> ,<br>expressed as methane<br>(applies to A-2 Flare only) | BAAQMD 8-34-412 and 8-34-501.4 and BAAQMD Condition # 2935, Part 8 | P/A                          | Initial and Annual Source Tests and Records  |
| Temperature of Combustion Zone (CT)  | BAAQMD Condition # 2935, Part 4 | Y      |                       | CT ≥ 1400 °F,<br>averaged over any 3-hour period<br>(applies to A-2 Flare only)   | BAAQMD 8-34-501.3 and 507, and BAAQMD Condition # 2935, Part 10b   | C                            | Temperature Sensor and Recorder (continuous) |
| Opacity                              | BAAQMD 6-301                    | Y      |                       | Ringelmann No. 1 for < 3 minutes/hr<br>(applies to A-2 Flare only)  |  | N                            |  |
| FP                                   | BAAQMD 6-310                    | Y      |                       | ≤ 0.15 grains/dscf<br>(applies to A-2 Flare only)   |  | N                            |  |
| NO <sub>x</sub>                      | BAAQMD Condition # 2935, Part 5 | Y      |                       | ≤ 15 ppmv,<br>corrected to 15% O <sub>2</sub> ,<br>dry basis  | BAAQMD Condition # 2935, Part 8                                    | P/A                          | Annual Source Test                           |
| CO                                   | BAAQMD Condition # 2935, Part 6 | Y      |                       | ≤ 666 ppmv,<br>corrected to 15% O <sub>2</sub> ,<br>dry basis   | BAAQMD Condition # 2935, Part 8                                    | P/A                          | Annual Source Test                           |

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-2 INACTIVE OR CLOSED LANDFILL**  
**A-2 LANDFILL GAS FLARE**

| Type of Limit                        | Citation of Limit               | FE Y/N | Future Effective Date | Limit  | Monitoring Requirement Citation          | Monitoring Frequency (P/C/N) | Monitoring Type                 |
|--------------------------------------|---------------------------------|--------|-----------------------|--|--|------------------------------|---------------------------------|
| SO <sub>2</sub>                      | BAAQMD 9-1-301                  | Y      |                       | Property Line Ground Level Limits:<br>$\leq 0.5$ ppm for 3 minutes<br>and $\leq 0.25$ ppm for 60 min.<br>and $\leq 0.05$ ppm for 24 hours<br>(applies to A-2 Flare only) |  | N                            |                                 |
| SO <sub>2</sub>                      | BAAQMD Regulation 9-1-302       | Y      |                       | $\leq 300$ ppm (dry basis)<br>(applies to A-2 Flare only)  | BAAQMD Condition # 2935, Part 7          | P/A                          | Sulfur analysis of landfill gas |
| Total Sulfur Content in Landfill Gas | BAAQMD Condition # 2935, Part 7 | Y      |                       | $\leq 1300$ ppmv   | BAAQMD Condition # 2935, Part 7          | P/Q                          | Sulfur analysis of landfill gas |
| H <sub>2</sub> S                     | BAAQMD 9-2-301                  | N      |                       | Property Line Ground Level Limits:<br>$\leq 0.06$ ppm,<br>averaged over 3 minutes<br>and $\leq 0.03$ ppm,<br>averaged over 60 minutes                                    |  | N                            |                                 |
| Heat Input                           | BAAQMD Condition # 2935, Part 3 | Y      |                       | $\leq 960$ MM BTU per day<br>and<br>$\leq 350,400$ MM BTU per year   | BAAQMD Condition # 2935, Parts 3 and 10a | P/D                          | Records                         |

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-2 INACTIVE OR CLOSED LANDFILL**  
**A-2 LANDFILL GAS FLARE**

| Type of Limit                                | Citation of Limit | FE Y/N | Future Effective Date | Limit                                       | Monitoring Requirement Citation | Monitoring Frequency (P/C/N) | Monitoring Type   |
|--|-------------------|--------|-----------------------|---|---------------------------------|------------------------------|---|
| 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) |

## VIII. TEST METHODS

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

**Table VIII  
 Test Methods**

| <b>Applicable Requirement</b> | <b>Description of Requirement</b>                             | <b>Acceptable Test Methods</b>  |
|-------------------------------|---|---|
| BAAQMD 6-301                  | Ringelmann No. 1 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 Limitations                | EPA Reference Method 21, Determination of Volatile Organic Compound Leaks   |
| BAAQMD 8-34-301.3             | Limits for Flares   | Manual of Procedures, Volume IV, ST-7, Organic Compounds and ST-14, Oxygen, Continuous Sampling; or EPA Reference Method 18, 25, 25A, or 25C  |
| BAAQMD 8-34-303               | Landfill Surface Requirements                                 | EPA Reference Method 21, Determination of Volatile Organic Compound Leaks   |
| BAAQMD 8-34-305.1             | Wellhead Gauge Pressure                                       | APCO Approved Device  |
| BAAQMD 8-34-305.2             | Wellhead Temperature  | APCO Approved Device  |
| BAAQMD 8-34-305.3             | Wellhead Nitrogen   | EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources   |
| BAAQMD 8-34-305.4             | Wellhead Oxygen   | EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources   |
| 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 <sub>2</sub> ) | Manual of Procedures, Volume VI, Part 1, Ground Level Monitoring for Hydrogen Sulfide and Sulfur Dioxide  |

## VIII. Test Methods

**Table VIII  
 Test Methods**

| <b>Applicable Requirement</b>         | <b>Description of Requirement</b>              | <b>Acceptable Test Methods</b>  |
|---------------------------------------|--|---|
| BAAQMD<br>9-1-302                     | General Emission Limitation (SO <sub>2</sub> ) | Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling, or ST-19B, Total Sulfur Oxides, Integrated Sample   |
| BAAQMD<br>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<br>Condition #<br>2935, Part 3 | Heat Input Limits                              | APCO approved gas flow meter and APCO approved calculation procedure described in BAAQMD Condition # 2935, Parts 3 and 10a  |
| BAAQMD<br>Condition #<br>2935, Part 4 | Flare Combustion Temperature Limit             | APCO Approved Device  |
| BAAQMD<br>Condition #<br>2935, Part 5 | Flare NOx Limit                                | Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling   |
| BAAQMD<br>Condition #<br>2935, Part 6 | Flare CO Limit                                 | Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling  |
| BAAQMD<br>Condition #<br>2935, Part 7 | Landfill Gas Sulfur Content Limit              | Draeger Tube: measuring hydrogen sulfide, used in accordance with manufacturer's recommended procedures   |

## **IX. PERMIT SHIELD**

**Not Applicable.**

## X. REVISION HISTORY

- |   |                    |
|---|--------------------|
| Initial Title V Permit Issuance: (Application #2613)                                  | March 6, 2003      |
| Minor Revision: (Application #7317)<br>Change to the number of wells at S-1, Landfill | September 24, 2003 |
| Administrative Amendment: (Application #12436)  | February 6, 2006   |
- Correct clerical error in the number of permitted gas collection wells listed in Table II-A and Permit Condition #2934, part 2.
  - Add language to Section III to clarify that this section contains requirements that may apply to temporary sources.
  - Modify Sections III and IV to state that SIP standards are now found on EPA's website and are not included as part of the permit. The updated website address has been added.
  - Delete SIP Regulation 1-523.5 "Maintenance and Calibration" in Table IV-A. BAAQMD Regulation 1-523.5 is now SIP approved and federally enforceable.
  - Remove the future effective dates for 40 CFR Part 63 in Table IV-A.
  - Add a paragraph to the standard text of Section VII to state that Sections I-VI take precedence if there is a conflict with the VII Tables.
  - Remove Section XII "Applicable State Implementation Plan". The address for EPA's website is now found in Sections III and IV.
- |  |                  |
|--|------------------|
| Minor Permit Revision (Application #14620) | January 28, 2007 |
|--|------------------|
- Modify Condition #2935, Part 2 to facilitate the additions and removal of equipment as specified in Authority to Construct #14329.



## **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 which allows the District to impose requirements.

**CAA**

The federal Clean Air Act

**CAAQS**

California Ambient Air Quality Standards

**CAPCOA**

California Air Pollution Control Officers Association

**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.

**CH<sub>4</sub> or CH<sub>4</sub>**

Methane

**CO**

Carbon Monoxide

## **XI. Glossary**

### **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

### **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 (NPS), 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.

### **H<sub>2</sub>S or H<sub>2</sub>S**

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.

### **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.**

## **XI. Glossary**

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

### **NAAQS**

National Ambient Air Quality Standards

### **NESHAPS**

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

### **NMHC**

Non-methane Hydrocarbons (Same as NMOC)

### **NMOC**

Non-methane Organic Compounds (Same as NMHC)

### **NO<sub>x</sub> or NO<sub>x</sub>**

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.)

### **O<sub>2</sub> or O<sub>2</sub>**

Oxygen

## **XI. Glossary**

### **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, NO<sub>x</sub>, PM<sub>10</sub>, and SO<sub>2</sub>.

### **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

### **PM<sub>10</sub> or PM<sub>10</sub>**

Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

### **PSD**

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

### **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.

### **SO<sub>2</sub> or SO<sub>2</sub>**

Sulfur dioxide

### **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 Plan

### **TRS**

Total Reduced Sulfur

### **TSP**

Total Suspended Particulate

### **VOC**

Volatile Organic Compounds

### **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 <sup>3</sup> | = | cubic feet                   |
| g               | = | grams                        |
| gal             | = | gallon                       |
| gpm             | = | gallons per minute           |
| gr              | = | grains                       |
| hp              | = | horsepower                   |
| hr              | = | hour                         |
| lb              | = | pound                        |
| lbmol           | = | pound-mole                   |
| in              | = | inches                       |
| m <sup>2</sup>  | = | square meter                 |
| m <sup>3</sup>  | = | cubic meters                 |
| min             | = | minute                       |
| mm              | = | million                      |
| MM              | = | million                      |
| MM BTU          | = | million BTU                  |
| MMcf            | = | million cubic feet           |
| Mg              | = | mega grams                   |
| ppb             | = | parts per billion            |
| ppbv            | = | parts per billion, by volume |
| ppm             | = | parts per million            |
| ppmv            | = | parts per million, by volume |

## **XI. Glossary**

|                 |   |                                    |
|-----------------|---|------------------------------------|
| 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 <sup>3</sup> | = | cubic yards                        |
| yr              | = | year                               |