

**APACHE JUNCTION LANDFILL**

- 1. Introduction** ..... 4
  - ~~A. General Background~~ ..... 4
- 2. Listing of Federally Enforceable Applicable Requirements** ..... 5
- 3. Compliance Certification** ..... 7
  - A. Compliance Plan ..... 7
  - B. Compliance Schedule ..... 7
- 4. Authority to Construct** ..... 7
- 5. Emission Limitations and Related Requirements** ..... 7
  - A. Allowable Emissions ..... 7
  - B. New Source Performance Standard - Municipal Solid Waste Landfills ..... 8
    - 1. Prevailing Standards ..... 8
    - 2. ~~Control Requirement Trigger; Monitoring Prior to Installation of Controls~~ ..... 8
    - 3. ~~Collection and Control System Trigger Design; Permit Revision Application~~ ..... 9
    - 4. **Collection and Control System Design [40 CFR §§60.752(b)(2)(ii), (iii), (iv)]** .. 9
    - 5. Removal Standards ..... 10
    - 6. Operational Standards and Test Methods ..... 11
    - 7. Requirements for Active Collection Systems ..... 12
  - C. Asbestos NESHAP Emission Standards; Standard for Active Waste Disposal Sites .. 15
    - 1. Signage requirement ..... 15
    - 2. Records; Regulated asbestos-containing waste area definition ..... 15
    - 3. Records; Regulated asbestos-containing waste deposition activity ..... 15
    - 4. Asbestos cell re-opening notification requirement ..... 16
  - D. Stratospheric Ozone and Climate Protection Emission Limitations ..... 16
  - E. Landfill NESHAP; Operation and Maintenance Requirements ..... 17
    - 1. Startup, Shutdown and Malfunction ..... 18
    - 2. Startup, shutdown and malfunction (SSM) plan ..... 18
  - F. Particulate Emissions Limitations ..... 20
    - 1. Opacity Limits ..... 20
    - 2. Opacity Limits ..... 20
    - 3. Generic Control Requirement; Reasonable Precaution Requirement ..... 21
    - 4. Reasonable Precautions ..... 22
  - G. Fuel Use Limitations ..... 23
  - H. General Maintenance Obligation. .... 23
  - I. Additional Applicable Limitations ..... 23
    - 1. Open Burning Prohibition ..... 23
    - 2. Asbestos NESHAP Compliance ..... 23
    - 3. Stratospheric Ozone and Climate Protection ..... 23
    - 4. Daily cover requirement ..... 23
- 6. Compliance Demonstration** ..... 23
  - A. Monitoring and Testing ..... 23
    - 1. Fuel Use Monitoring ..... 24
    - 2. Soil Moisture Content Determination; Emission Inventory Revision ..... 24
    - 3. Leachate Recycling Monitoring ..... 24
    - 4. Collection and Control System Compliance Provisions ..... 24
    - 5. Monitoring of Collection and Control System Operations ..... 28

B.	Recordkeeping .....	30
1.	General NSPS-related recordkeeping requirements .....	30
5.	Plot Map .....	33
6.	Exceedance Records .....	33
8.	Startup, Shutdown and Malfunction Recordkeeping .....	33
<b>7.</b>	<b>Reporting Obligations .....</b>	<b>34</b>
A.	Regular Compliance Reporting .....	34
B.	Regular Compliance/Compliance Progress Certification .....	34
C.	Annual emissions inventory .....	35
D.	Reporting Operational Changes .....	35
1.	Asbestos NESHAP Emission Standards; Standard for Active Waste Disposal Sites; Closure Notification .....	35
E.	NSPS Reporting .....	35
1.	Generally .....	35
2.	Landfill NSPS & <del>NESHAP Annual Emission Estimate Reports</del> .....	35
3.	Active Collection Systems Semi Annual .....	36
4.	Collection System Report .....	37
5.	Equipment Removal .....	37
6.	Closure Report .....	38
F.	Deviation Reporting Requirement .....	38
G.	Asbestos NESHAP Reporting Requirements .....	38
<b>8.</b>	<b>Fee Payment .....</b>	<b>38</b>
<b>9.</b>	<b>General Conditions .....</b>	<b>39</b>
A.	Term .....	39
B.	Basic Obligation .....	39
C.	Duty to Supplement Application .....	39
D.	Right to Enter .....	39
E.	Transfer of Ownership .....	40
F.	Posting of Permit .....	40
G.	Permit Revocation for Cause .....	40
H.	Certification of Truth, Accuracy, and Completeness .....	40
I.	Renewal of Permit .....	41
J.	Severability .....	41
K.	Permit Shield .....	41
L.	Permit Revisions .....	41
M.	Permit Re-opening .....	41
N.	Record Retention .....	42
O.	Scope of License Conferred .....	42
P.	Excess Emission Reports; Emergency Provision .....	42
<b>10.</b>	<b>Additional provisions applicable to Title V Sources .....</b>	<b>44</b>
<b>11.</b>	<b>Equipment Schedule .....</b>	<b>44</b>
<b>12.</b>	<b>Emission Inventory Table .....</b>	<b>44</b>

## 1. Introduction

### A. General Background

This permit ~~revision~~ **renewal** pertains to an existing solid waste landfill facility, owned and operated by Apache Junction Landfill Corporation (AJLC), a Delaware corporation. The facility **began operations in the 1960's** ~~opened in 1974 under the ownership of~~ **and in 1993 AJLC acquired the landfill from** Pinal County. The landfill has an overall site area of about 128.9 acres of which ~~78.8~~ **96.3** acres are currently permitted as landfill area. The facility, commonly known as the Apache Junction Landfill, is located at 4050 South Tomahawk Road, Apache Junction, Arizona, in a portion of Section 4, Township 1 South, Range 8 East, in an area classified as "non-attainment" for 8-hour ozone and "attainment" for all other pollutants.

The Apache Junction Landfill (AJL) is a regional municipal solid waste treatment and disposal facility. No hazardous or infectious medical wastes are accepted for disposal and incineration of wastes is not performed. The AJL accepts residential wastes, commercial wastes, construction debris, industrial special wastes and other acceptable non-hazardous wastes. Asbestos-containing materials are independently managed and segregated in a controlled area.

The natural decomposition of the waste materials, and to some extent the evaporation of volatile compounds in the waste materials, constitute the primary sources of emissions. The complex nature of those emissions qualifies them for regulatory analysis from several different perspectives, including consideration as volatile organic compounds ("VOCs"), as landfill gas ("LFG", which is measured by a surrogate, namely non-methane organic compounds or "NMOC" measured as hexane), and as one or more hazardous air pollutants ("HAPs").

Traffic delivering waste materials generates particulate emissions ("PM<sub>10</sub>") or dust. In addition, the daily application of a cover layer of soil also produces PM<sub>10</sub> emissions, resulting from soil stockpiling, cover layer distribution, and wind erosion. A few pieces of modest-sized diesel-driven equipment also emit oxides of nitrogen ("NO<sub>x</sub>") and sulfur dioxide ("SO<sub>2</sub>").

~~Minor revision R01 increases the area permitted for landfilling from 78.8 acres to 96.3 acres, and the current landfill design capacity from 10,251,809 cubic yards of gross air space to 13,031,809 cubic yards. The total waste accepted at the facility will increase from 4.81 million tons to approximately 7.26 million tons. The design capacity of the landfill is estimated at 14.18 million cubic yards or 8.5 million tons. Even with this expansion, the facility's NMOC emissions are not expected to exceed the collection/controls-required threshold of 50 Mg per year, but if that threshold is reached, the permittee will have to submit a permit revision for the~~ **install a Gas Collection and Control System (GCCS) as required by 40 CFR Part 60 Subpart WWW.**

~~This expansion includes a new~~ **The landfill uses a** liner system, which collects any liquids or leachate that drains from the mass of waste materials and a collection system and pump to allow the leachate to be extracted, collected and sprayed back onto lined cells in the facility. **In 2010, a perimeter gas management system (GMS) was installed to control potential subsurface migration of LFG. The GMS consists fo 14 vertical extraction wells on the north side of the landfill within the waste limits. Additionally 5 more wells are planned for the year 2011 The wells are routed to a common header that conveys collected LFG to a candlestick flare.**

This facility falls subject to a number of regulatory requirements; the three primary requirements include:

- A New Source Performance Standard ("the Landfill NSPS") regulates emissions of LFG. The Landfill NSPS requires that once calculated LFG emissions exceed a certain threshold, a capture-and-control system must be designed and installed. The Landfill NSPS defines a method for

calculating emissions as a function of the amount of waste deposited in the facility, and other variables. Permittee has calculated that the emissions of non-methane organic compounds will not exceed the threshold for which controls are required during the term of this permit.

- A National Emission Standard for Hazardous Air Pollutants ("the Asbestos NESHAP") requires that asbestos-containing waste materials be properly identified, documented and handled.
- The Stratospheric Ozone Protection Program established by Clean Air Act Title VI requires, with only limited exceptions, that refrigerants be properly removed from various appliances prior to disposal in a landfill facility. This facility does not allow final disposal of "white goods," including major consumer appliances and other similar equipment items, without proper certification of evacuation. Rather, those items are segregated in a holding area, and a qualified recycler handles refrigerant recovery/recycling and the ultimate disposal.

A complete list of equipment from which emissions are allowed by this permit is given in Section 11. of this permit.

~~B. Permit History [MOVED TO TECHNICAL SUPPORT DOCUMENT]~~

~~An expansion of 21.6 acres was approved in 1999. The facility design for this new area includes a liner system, which collects any liquids, or leachate, that drains from the mass of waste materials. A collection system and pump allows the leachate to be extracted, collected, and eventually sprayed back onto lined cells in the facility, effectively amounting to a leachate drying system. Eventually, any volatile fraction will evaporate or decompose, and those compounds will escape as emissions.~~

~~Revision "V20614.R01" authorized the addition of the following emission standards, requirements associated with Asbestos NESHAP standards for active waste disposal sites:~~

- ~~1. Section 2.G. - Listing of Federally Enforceable Applicable Requirements - 40 CFR §61.154 (1/16/91) National Emission Standard for Asbestos; Standard for Active Waste Disposal Sites.~~
- ~~2. Section 5.C. - Asbestos NESHAP Emission Standards for active waste disposal sites.~~
- ~~3. Section 7.D. - Reporting Operational Changes~~
- ~~4. Section 7.G. - Asbestos NESHAP reporting requirements.~~

~~The permit was renewed in 2006. The renewal also updated the equipment list to reflect the most accurate list of internal combustion equipment permitted at the facility. Other gasoline and diesel-powered engines at the facility are considered insignificant activities.~~

**2. Listing of Federally Enforceable Applicable Requirements [Mandated by 40 CFR §70.5(c)(4)]** (Code §§3-1-060.B.2.d, 3-1-081.A.2, 3-1-081.A.8.a)

- A. SIP-approved PGCAQCD Regulations. Those specific provisions of the Pinal-Gila Counties Air Quality Control District ("PGCAQCD") Regulations, as adopted by the Pinal County Board of Supervisors on March 31, 1975, and approved by the Administrator as elements of the Arizona State Implementation Plan ("SIP") at 43 FR 50531, 50532 (11/15/78), and specifically the following rules:

7-3-1.2	Emission Standards - Particulate Emissions - Fugitive Dust
7-3-1.3	Emission Standards - Particulates - Open Burning
7-3-1.7.E	Fuel Burning Equipment - Particulate Emissions

- B. SIP-approved PGCAQCD Regulations. Those specific provisions of the Pinal-Gila Counties Air

Quality Control District Regulations, as last amended by the Pinal County Board of Supervisors on June 16, 1980, and approved by the Administrator as elements of the Arizona SIP at 47 FR 15579 (4/12/82), specifically, the following rules:

7-3-1.1 Visible Emissions; General

- C. SIP-approved PCAQCD Regulations. Those provisions of the Pinal County Air Quality Control District Code of Regulations, as last amended on 10/12/95, and approved by the Administrator as elements of the Arizona SIP at 61 FR 15717 (4/9/96), specifically, the following rules:
- |                  |  |
|------------------|--|
| §1-3-140.74a.vii | Definitions (specifically, "insignificant activities") |
| §2-8-300         | Performance standard (generic opacity standard)        |
| §3-1-010         | Purpose (Permits and Permit Revisions)                 |
| §3-1-040         | Applicability and classes of permits                   |
| §3-1-081         | Permit Terms   |
| §4-2-040         | Standards (related to fugitive dust emissions)         |
- D. The following specific elements of 40 CFR Part 60, Subpart WWW (as amended 1998) Standards of Performance for Municipal Solid Waste Landfills:
- |                |   |
|----------------|---|
| 40 CFR §60.750 | Applicability, designation of affected facility, and delegation of authority. |
| § 60.751       | Definitions.  |
| § 60.752       | Standards for air emissions from municipal solid waste landfills.             |
| § 60.754       | Test methods and procedures.  |
| § 60.755       | Compliance provisions.  |
| § 60.757       | Reporting requirements.   |
| § 60.758       | Recordkeeping requirements.   |
- E. CAA §608 (11/15/90); 40 CFR Part 82, Subpart F - Recycling and Emissions Reduction (9/7/95); regulations pertaining to use and handling of ozone-depleting substances.
- F. 40 CFR §61.154 (1/16/91) National Emission Standard for Asbestos, standard for active waste disposal sites.
- G. Those specific provisions of the PCAQCD Regulations, as last amended by the Pinal County Board of Supervisors on April 27, 2004, and approved by the Administrator as elements of the Arizona SIP at 75 FR 17307 (4/6/10), specifically, the following rule:
- |          |  |
|----------|--|
| §4-2-040 | Standards (Fugitive Dust Reasonable Precautions) |
|----------|--|
- H. The National Emission Standard for Hazardous Air Pollutants ("MACT") - General Provisions [40 CFR §63.1 *et seq.*]
- I. The following specific elements of 40 CFR 63, Subpart AAAA, National Emissions Standards for Hazardous Air Pollutants (NESHAP): Municipal Waste Landfills:
- |                 |   |
|-----------------|---|
| §63.1955        | Standards   |
| §63.1960 & 1965 | Compliance with NSPS Rules for testing, monitoring and operation of the GCCS. |
| §63.1975        | Continuing Compliance   |
| §63.1980        | Notifications, Records and Reporting.   |

### 3. Compliance Certification

- A. Compliance Plan **[Mandated by 40 CFR §70.5(c)(8)]** (Code §§3-1-081.C, 3-1-083.A.7)

As the Permittee is currently in compliance, the compliance plan consists of continued adherence to the requirements of this permit and those requirements set forth in applicable regulations and statutes.

- B. Compliance Schedule **[Mandated by 40 CFR §§ 70.5(c)(8), 70.6(c)(3)]** (Code §§3-1-060.B.1, 3-1-083.A.7.c)

As the Permittee is currently in compliance, no compliance schedule to attain compliance is required.

### 4. Authority to Construct **[Federally enforceable - Code §§3-1-010, 3-1-040 (as amended 10/12/95) approved as a SIP Element at 61 FR 15717 (4/9/96)]**

Emissions from this facility, specifically the equipment described in "Equipment Schedule" section below, and the operating configuration more fully described in the application for permit, already fall subject to the independent Federally enforceable limitations identified elsewhere in this permit. Therefore, based on the regulations in effect upon the date of issuance of this permit and on a finding that allowable emissions from the equipment described in the Equipment Schedule will neither cause nor contribute to a violation of any ambient air quality standard even without any additional limitations, and a further finding that this does not constitute a "major source" within the meaning of Code §3-3-203, this permit constitutes authority to construct and operate such equipment.

### 5. Emission Limitations and Related Requirements **[Mandated by 40 CFR §70.6(a)(1)]** (Code §3-1-081.A.2)

- A. Allowable Emissions **[Federally enforceable - Code § 3-1-081.A.2. (as amended 10/12/95), as limited by §1-1-105 (10/12/95), approved as SIP Elements at 61 FR 15717 (4/9/96)]**

Permittee is authorized to discharge or cause to discharge into the atmosphere those emissions of air contaminants as set forth below. Unless exempted under Code §3-1-040.C., or authorized by a separate permit, by this permit or by a revision or operational change allowed under Chapter 3, Article 2 of the Code, Permittee shall not commence construction of, operate or make any modification to this source in a manner which will cause emissions of any regulated air pollutant in excess of the de minimis amount.

- B. New Source Performance Standard - Municipal Solid Waste Landfills **[Federally enforceable pursuant to 40 CFR Part 60, Subpart WWW]** (Code §6-1-030.73 (6/25/97))

*Unless otherwise specified, the following regulatory section references all relate to the New Source Performance Standards, Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills (the "Landfill NSPS"), 40 CFR §60.750 et seq.*

1. Prevailing Standards

Permittee shall comply with §§60.750, 60.751, 60.752, 60.754, 60.755, 60.757 and 60.758.

2. ~~Control Requirement Trigger~~ - Monitoring Prior to Installation of Controls **[40 CFR**

**§60.754]**

- a. Unless the facility is closed, then at least until Permittee actually installs a capture-and-control system **in accordance with Section §5.B.4**, Permittee shall annually, or on such other schedule as may be allowed under §60.752.b, submit a report defining the estimated NMOC emission rate. The report shall reflect the requirements of §60.754.a., and shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions, as required under §60.757.b.2. Copies of the annual report shall be submitted to the District, and to the EPA Regional Office (**AIR-5 Enforcement Office Regional Administrator c/o Air Division Permits Office**, EPA Region IX, 75 Hawthorne Street, San Francisco, CA 94105-3901). Reports shall be due within 30 days of the anniversary date that triggers the reporting requirement. Specifically, unless otherwise approved in writing by the Control Officer or the Administrator:
- i. Tier 1 analyses shall rely on the default values for  $L_0$ ,  $k$  and NMOC; in accord with §60.754.a and §60.754.a.1.ii.
  - ii. Tier 2 analyses shall rely on the default values for  $L_0$  and  $k$  in accord with §60.754.a.1.ii and §60.754.a.1.ii. The average NMOC value shall be determined in accord with §60.754.a.3.
  - iii. Tier 3 analyses shall rely on the default value for  $L_0$ , NMOC and  $k$  values shall be determined in accord with §60.754.a.3.
- b. In accord with 40 CFR §60.757.d, if the facility ceases to accept waste for deposition, then within 30 days of such event, Permittee shall notify the Control Officer, and the EPA Regional Office (**AIR-5 Enforcement Office Regional Administrator c/o Air Division Permits Office**, EPA Region IX, 75 Hawthorne Street, San Francisco, CA 94105-3901), in writing. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR §60.7.a.4.

3. **Collection and Control System Trigger Design; Permit Revision Application [40 CFR §60.752(b)(2)(i)]**

When an NMOC emission rate report, as calculated in accord with 40 CFR §60.754.a, indicates that emissions exceed the 50 Mg./yr. (55 ton-per-year) emission rate cutoff specified in §60.752.b.2, then Permittee shall either:

- a. Within one year of the date of that report, submit a **collection and control system design**, prepared by a professional engineer to meet the **design** requirements of **Section §5.B.4** ~~40 CFR §60.743.b.2.ii~~, to the Control Officer for approval, **including any alternatives to the operational standards, test methods, compliance provisions, monitoring, recordkeeping or reporting provisions of this permit proposed by the Permittee.**
- i. **The collection and control system design plan shall either conform with the specifications in Section §5.B.4 for an active collection system or include a demonstration to the Control Officer's satisfaction of the sufficiency of any alternative provision to Section §5.B.7.**

- ii. The Control Officer shall review the information submitted in the above paragraphs of this section and either approve it, disapprove it, or request that additional information be submitted.

~~as required under §60.752.b.2., as well as an application for a corresponding permit revision to incorporate such changes to this permit as may be required to accommodate the proposed control system physical configuration, operational requirements and compliance requirements arising under those provisions of Part 60, Subpart WWW identified elsewhere in this permit section. Additionally,~~

- iii. Permittee shall send a copy of the control system design to EPA Regional Office (~~AIR-5 Enforcement Office~~ Regional Administrator c/o Air Division Permits Office, EPA Region IX, 75 Hawthorne Street, San Francisco, CA 94105-3901). ~~The final system design and the terms of a revised permit will each require approval by both the Control Officer and the Administrator, or~~

- b. To the extent allowed under §60.757.c, resubmit within 180 days a revised NMOC emissions report(s), recalculated under Tier 2 and/or Tier 3 as set forth in §60.754.a, to determine if the estimated emission rate still exceeds the emission rate cutoff. Permittee may invoke any variable values allowed above for an initial Tier 2/Tier 3 analysis. If the revised NMOC emission report under Tier 2 and/or Tier 3 still indicates emissions in excess of the emission rate cutoff, Permittee shall comply with subparagraph 2.a. of this paragraph. Otherwise, Permittee shall resume annual reporting under subparagraph 1.a. of this paragraph.

#### 4. Collection and Control System Design [40 CFR §§60.752(b)(2)(ii), (iii), (iv)]

If the Collection and Control System requirement is triggered, Permittee shall:

- a. Install a collection and control system that captures the gas generated within the landfill as required in either of the following subsections:
  - i. An active collection system shall be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment; shall collect gas from each area, cell or group of cells in the landfill; shall collect gas at a sufficient extraction rate; and shall be designed to minimize off-site migration of subsurface gas.
  - ii. A passive collection system shall be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment; shall collect gas from each area, cell or group of cells in the landfill; shall be designed to minimize off-site migration of subsurface gas; and shall be installed with liners on the bottom and all sides in all areas which gas is to be collected. The liners shall be installed as required under 40 CFR §258.40.
- b. Route all the collected gas to a control system that complies with one of the following:
  - i. An open flare designed and operated in accordance with 40 CFR §60.18; or

- ii. A control system designed and operated to reduce NMOC by 98 weight percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 percent or reduce the outlet NMOC concentration to less than 20 ppmv, dry basis as hexane at 3 percent oxygen. The reduction efficiency or ppmv shall be established by an initial performance test to be completed no later than 180 days after initial startup of the approved control system using the test methods specified in the testing section of this permit.
  - iii. A treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of either of the previous subsections.
- c. Operate the installed collection and control device to comply with Sections §§5.B.6, 5.B.7, 6.A.4.

5. Removal Standards **[40 CFR §60.752(b)(2)(v)]**

The collection and control device may be capped or removed provided that all of the following conditions are met:

- a. The landfill shall be a closed landfill as defined in 40 CFR §60.751. A closure report shall be submitted to the Control Officer as provided in Section §7.E.6.
- b. The collection and control system shall have been in operation a minimum of 15 years; and
- c. Following the procedures of 40 CFR §60.752(b)(2)(v), the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

6. Operational Standards and Test Methods **[40 CFR §60.753(a) through (g)]**

Permittee shall:

- a. Operate the collection system such that gas is collected from each area, cell, or group of cells in the Municipal Solid Waste Landfill in which waste has been in place for:
  - i. 5 years or more if active; or
  - ii. 2 years or more if closed or at final grade.
- b. Operate the collection system with negative pressure at each wellhead except under the following conditions:
  - i. When a fire or increased temperature occurs. Permittee shall record instances when positive pressure occurs in efforts to avoid fire. These records shall be submitted with the semiannual report required in Section §7.
  - ii. When a geomembrane or synthetic cover is used. Permittee shall develop

- acceptable pressure limits in the design plan; or
- iii. When Permittee has decommissioned well. The well may experience a static positive pressure after shut down to accommodate for declining flow. All design changes shall be approved by the Control Officer.
- c. Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Celsius and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. Permittee may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.
    - i. The nitrogen level shall be determined using Method 3C, unless an alternative method as allowed by Section §5.B.3.a.i
    - ii. Unless an alternative test method is established as allowed by Section §5.B.3.a.i, the oxygen shall be determined by an oxygen meter using Method 3A except that: the span shall be set so that the regulatory limit is 20-50% of the span; a data recorder is not required; only 2 calibration gases are required, a zero and span, and ambient air may be used as the span; a calibration error check is not required; and the allowable sample bias, zero drift, and calibration drift are  $\pm 10$  percent.
  - d. Operate the collection system so that the methane concentration is less than 500 ppm above background at the surface of the landfill. To determine if this level is exceeded, Permittee shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. Permittee may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site specific deviations. Areas with steep slopes or other dangerous area may be excluded from the surface testing.
  - e. Operate the system such that all collected gases are vented to a control system designed and operated in compliance with Section §5.B.4.a. In the event the collection and control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour;
  - f. Operate the control or treatment system at all times when the collected gas is routed to the system.
  - g. If monitoring demonstrates that the operational requirements in Subsections b., c., and d. above are not met, corrective action shall be taken as specified in Sections §§6.A.4.a.iii thru v and 6.A.4.b. If corrective actions are taken as specified, the monitored exceedance is not a violation of the operational requirements of this section.
7. Requirements for Active Collection Systems **[40 CFR §60.759(a) through (c)]**

If the facility is required to install a collection and control system Permittee shall:

- a. Site active collection wells, horizontal collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Control Officer:
  - i. The collection devices within the interior and along the perimeter areas shall be certified by a professional engineer to achieve comprehensive control of surface gas emissions. The following issues shall be addressed in the design: depth of refuse, refuse gas generation rate and flow characteristics, cover properties, gas system expendability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.
  - ii. The sufficient density of gas collection devices determined in the previous paragraph shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.
  - iii. The placement of the gas collection devices shall control all gas producing areas, except as provided by A and B below:
    - A. Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided in the Recordkeeping requirements of this permit. The documentation shall provide the nature, date of deposition, location, and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Control Officer upon request.
    - B. Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than one percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Control Officer upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the following equation:

$$Q_i = 2kL_oM_i (e^{-kt_i})(C_{NMOC})(3.9 \times 10^{-9})$$

where

$Q_i$	=	NMOC emission rate from the $i^{\text{th}}$ section, Mg/yr
$k$	=	methane generation rate constant, year <sup>-1</sup>
$L_o$	=	methane generation potential, cubic meters per megagram solid waste
$M_i$	=	mass of the degradable solid waste in the $i^{\text{th}}$ section, megagrams
$t_i$	=	age of the solid waste in the $i^{\text{th}}$ section, years
$C_{NMOC}$	=	concentration of nonmethane organic

compounds, ppmv

- C. The values for  $k$  and  $C_{\text{NMOC}}$  determined in field testing shall be used, if field testing has been performed in determining the NMOC emission rate or the radii of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for  $k$ ,  $L_0$ , and  $C_{\text{NMOC}}$  are provided in §60.754(a)(1), unless alternative values have been approved. The mass of the nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in paragraph B. of this section.
- b. Construct the gas collection devices using the following equipment or procedures:
- i. The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.
  - ii. Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.
  - iii. Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.
- c. Convey the landfill gases to a control system in compliance with Section §5.B.4.b through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:
- i. For existing collection systems, the flow data shall be used to project the

maximum flow rate. If no flow data exists, the procedures in paragraph ii below shall be used.

- ii. For new collection systems, the maximum flow rate shall be in accordance with Section §6.A.4.a.

C. Asbestos NESHAP Emission Standards; Standard for Active Waste Disposal Sites [**Currently federally enforceable; 40 CFR Part 61, Subpart M, 40 CFR §61.154**] (Code §§7-1-030, 7-1-060)

1. Signage requirement

Permittee shall post and maintain a prominent sign at or prior to the facility gatekeeper, indicating that "LOADS WITH ASBESTOS-CONTAINING MATERIALS MUST BE DECLARED TO THE GATEKEEPER."

2. Records; Regulated asbestos-containing waste area definition

Permittee shall maintain, until facility closure, records of the location, depth, area and quantity (in volume) of asbestos-containing waste material as well as a map or diagram showing the disposal area.

3. Records; Regulated asbestos-containing waste deposition activity

Receipt, handling and disposal of asbestos containing waste received from sources covered by 40 CFR §61.159 (asbestos mills), 40 CFR §61.150 (demolition, renovation, fabricating and manufacturing), or 40 CFR §61.155 (asbestos conversion operations) must meet the following standards:

a. Waste shipment records required

Asbestos containing waste may only be accepted when the transporter presents a complete waste shipment record, identifying:

- i. the name, address and telephone number of the waste generator;
- ii. the name, address and telephone number of the transporter; and
- iii. the quantity of asbestos-containing waste material, expressed in cubic yards or cubic meters.

b. Waste shipment receiving requirements

At the time of accepting asbestos containing waste for disposal, the Permittee shall:

- i. Record the date of receipt of the material.
- ii. Record the presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers.
- iii. Inspect the material, determine whether or not the quantity of asbestos containing waste materials differs from the quantity indicated on the waste shipment record, and record any discrepancies. Report discrepancies as

outlined in §7.below.

c. Generator return notification requirement

As soon as possible, and within 30 days after receipt of the asbestos containing waste, the Permittee shall send a copy of the signed waste shipment record to the waste generator.

d. Daily cover/suppressant application requirement

At the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, all asbestos containing waste materials that have been deposited at the site during the operating day or previous 24-hour period shall:

- i. be covered with at least 6 inches of compacted non-asbestos containing material, or
- ii. be covered with a resinous or petroleum based dust suppressant agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Used, spent, or other waste oil may not be used as a dust suppression agent.

4. Asbestos cell re-opening notification requirement

At least 45 days before excavating or otherwise disturbing any asbestos-containing waste material that has been deposited and covered at the site, Permittee shall notify the Control Officer in writing. The notice shall include:

- a. The scheduled starting and completion dates
- b. The reason for disturbing the waste
- c. The procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material.
- d. The location of any temporary storage site and the final disposal site.

If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Control Officer at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification.

D. Stratospheric Ozone and Climate Protection Emission Limitations ***[Currently federally enforceable; 40 CFR Part 82 Subpart F]*** (Code §§1-3-140.15, 1-3-140.58.k)

- 1. General prohibition; public notice required ***[Currently federally enforceable; 40 CFR §82.156.f.3]***
  - a. Permittee shall generally prohibit the disposal of appliances, refrigerators, air conditioners, freezers, chillers, coolers, or other equipment that either contain or

once contained refrigerants regulated under Subpart F.

- b. At or near the gatekeeper's facility, Permittee shall provide a clearly visible warning sign, requiring customers to alert the gatekeeper to the presence of such equipment in a load of waste materials.
- c. Permittee may allow customers to leave such items at the permitted facility, provided the items are placed in a segregated area, and at least once every twelve months, Permittee has all of those items removed from the site by a qualified party. Within the meaning of this paragraph, a "qualified party" is one who has submitted a certification to the Administrator of the EPA under 40 CFR §§82.154.e and 82.162, affirming that such person is complying with the various requirements pertaining to refrigerant recovery and recycling.
- d. Permittee shall obtain from the "qualified party" described in the preceding paragraph a written verification of submittal to the Administrator of the necessary certification.

2. Signed written statement required for disposal of small appliances, motor vehicle air conditioners, or motor-vehicle-air-conditioner-like appliances. ***[Currently federally enforceable; 40 CFR §82.156.f.2]***

If Permittee elects to allow disposal of small appliances, motor vehicle air conditioners ("MVAC"), or MVAC-like appliances, Permittee shall first obtain a signed written statement verifying that all refrigerant that had not leaked previously has been recovered evacuated from the appliance(s) previously, in accord with either 40 CFR §§82.156.g or 82.156.h. The written statement must include the name and address of the person who recovered the refrigerant and the date the refrigerant was recovered or a contract that the refrigerant was to be removed prior to delivery for disposal.

3. Copy of written certification required for disposal of other appliances not covered above. ***[Currently federally enforceable; 40 CFR §82.154.e]***

If Permittee elects to allow disposal of appliances or devices that contain(ed) and use(d) class I or class II substances as refrigerants and is (or was) used for household or commercial purposes (other than small appliances, MVACs and MVAC-like appliances allowed under the preceding subsection), including air conditioners, refrigerators, chillers or freezers, unless a that person first provides the Permittee with a signed written statement, affirming that a certification has previously been submitted to the Administrator, attesting to compliance with the refrigerant recycling/recovery requirements of 40 CFR §82 Subpart F.

4. Due diligence required

Permittee shall exercise reasonable efforts to observe and screen load contents to assure compliance with the stratospheric ozone related emission limitations and prohibitions set forth above.

**E. Landfill NESHAP; Operation and Maintenance Requirements *[Currently federally enforceable; 40 CFR Part 63, Subpart AAAA and Subpart A, 40 CFR §63.1980(b), 63.6(e)]* (Code §7-1-030)**

1. **Startup, Shutdown and Malfunction**

- a. At all times, including periods of startup, shutdown, and malfunction (SSM), the Permittee must operate and maintain the source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of SSM, this general duty to minimize emissions requires that the Permittee reduce emissions from the source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of SSM does not require the Permittee to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the Permittee to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Control Officer which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the SSM plan required by this permit), review of operation and maintenance records, and inspection of the source.
- b. Malfunctions must be corrected as soon as practicable after their occurrence in accordance with the SSM plan. To the extent that an unexpected event arises during an SSM, the Permittee must comply by minimizing emissions during such an SSM event consistent with safety and good air pollution control practices.
- c. Operation and maintenance requirements established pursuant to Section 112 of the Clean Air Act (the Act) are enforceable independent of emissions limitations or other requirements in relevant standards.

## 2. Startup, shutdown and malfunction (SSM) plan

- a. Permittee must develop and implement a written SSM plan that describes, in detail, procedures for operating and maintaining the source during SSM periods, and a program of corrective action for malfunctioning process and air pollution control and monitoring equipment used to comply with the relevant standard. This plan must be developed by the Permittee's compliance date for that relevant standard.
- b. During SSM periods, the Permittee must operate and maintain the source (including associated air pollution control and monitoring equipment) in accordance with the procedures specified in the SSM plan developed under this permit.
- c. When actions taken by the Permittee during SSM (including actions taken to correct a malfunction) are consistent with the procedures specified in the SSM plan, the Permittee must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a checklist, or other effective form of recordkeeping that confirms conformance with the SSM plan for that event. In addition, the Permittee must keep records of these events as specified in §6.B.8, including records of the occurrence and duration of each startup, shutdown or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the Permittee shall confirm that actions taken during the relevant reporting period during SSM periods were consistent with the source's SSM plan in the semiannual SSM report required by this permit.
- d. If an action taken by the Permittee during an SSM (including an action taken to correct a malfunction) is not consistent with the procedures specified in the source's

SSM plan, and the source exceeds any applicable emission limitation in the relevant emission standard, then the Permittee must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event (unless the Permittee makes alternative reporting arrangements, in advance, with the Control Officer).

- e. Permittee must maintain at the source a current SSM plan and must make the plan available upon request for inspection and copying by the Control Officer. In addition, if the SSM plan is subsequently revised, the Permittee must maintain at the source each previous (i.e. superseded) version of the SSM plan, and must make each such previous version available for inspection and copying by the Control Officer for a period of 5 years after the revision of the plan. If at any time after adoption of an SSM plan the source ceases operation or is otherwise no longer subject to the NESHAP provisions, the Permittee must retain a copy of the most recent plan for 5 years from the date the source ceases operation or is no longer subject to the NESHAP and must make the plan available upon request for inspection or copying by the Control Officer. The Control Officer may at any time request in writing that the Permittee submit a copy of any SSM plan (or a portion thereof) which is maintained at the source or in the possession of the Permittee. Upon receipt of such a request, the Permittee must promptly submit a copy of the requested plan (or a portion thereof) to the Control Officer. The Control Officer must request that the Permittee submit a particular SSM plan (or a portion thereof) whenever a member of the public submits a specific and reasonable request to examine or to receive a copy of that plan or portion of a plan. The Permittee may elect to submit the required copy of any SSM plan to the Control Officer in electronic format. If the Permittee claims that any portion of such an SSM plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR §2.301, the material which is claimed as confidential must be clearly designated in the submission.
- f. To satisfy the requirements of this section to develop an SSM plan, the Permittee may use the source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection or submitted when requested by the Control Officer.
- g. Based on the results of a determination made under subsection E.1 above, the Control Officer may require that the Permittee make changes to the SSM plan. The Control Officer must require appropriate revisions to an SSM plan, if the Control Officer finds that the plan:
  - i. Does not address an SSM event that has occurred,
  - ii. Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during an SSM event in a manner consistent with the general duty to minimize emissions,
  - iii. Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable, or
  - iv. Includes an event that does not meet the definition of an SSM event listed

in 40 CFR §63.2

- h. Permittee may periodically revise the SSM plan as necessary to satisfy the requirements of this section of to reflect changes in equipment or procedures at the source. The Permittee may make such revisions to the SSM plan without prior approval by the Control Officer. However, each such revision to an SSM plan must be reported in the semiannual report required by this permit. If the SSM plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the SSM plan at the time the Permittee developed the plan, the Permittee must revise the SSM plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the Permittee makes any revision to the SSM plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this section, the revised plan shall not take effect until after the Permittee has provided a written notice describing the revision to the Control Officer.

F. Particulate Emissions Limitations

1. Opacity Limits ***[Federally enforceable - PGCAQCD Reg. 7-3-1.1 (amended 6/16/80) approved as a SIP Element at 47 FR 15579 (4/12/82)]***

The opacity of any plume or effluent shall not be greater than 40 percent as determined by Reference Method 9 in the Arizona Testing Manual.

2. Opacity Limits ***[Federally enforceable - Code §4-2-040., as limited by §1-1-105 (10/12/95), approved as SIP Elements at 61 FR 15717 (4/9/96)]***

The opacity of any discharge into the atmosphere from emissions of any air contaminant, other than uncombined water vapor, shall not exceed a shade or density darker than 40 percent opacity. Fugitive dust from waste piles and ponds, open areas, roadways, alleys, transportation operations, material handling operations, and conveying operations that are owned or operated by the Permittee shall be controlled in accordance with this requirement.

3. Generic Control Requirement; Reasonable Precaution Requirement ***[Federally enforceable - PGCAQCD Reg. 7-3-1.2 (3/31/75) approved as a SIP Element at 43 FR 50531 (11/15/78); Code §4-2-040., as limited by §1-1-105 (10/12/95), approved as SIP Elements at 61 FR 15717 (4/9/96)]***

- a. In managing site-traffic, excavating, moving, stockpiling or placing fill or cover material; Permittee shall exercise reasonable precautions to effectively prevent fugitive dust from becoming airborne. Dust and other types of particulates shall be kept to a minimum by the following methods:

- i. Application of water/dust palliative to all areas as necessary to prevent or minimize visible emissions;
- ii. Pre-wet earthmoving areas to depth of cuts;
- iii. Dedicated water truck must be used during trenching and backfilling

operations;

- iv. Application of water/dust palliative to all open storage piles once per day until a crusted surface has formed;
- v. Handling or loading of soil must be pre-wet;
- vi. Haul trucks carrying bulk materials must be effectively covered with a tarp or suitable material prior to entering the site;
- vii. Restrict vehicular speed to 15 miles per hour;
- viii. Install and maintain a stabilized construction entrance/course gravel pad; and,
- ix. Wet sweep or vacuum visible track-out originating from site activities daily.

Final stabilization must include either:

- i. Paving affected areas;
  - ii. Stabilization with gravel or recycled asphalt; and/or
  - iii. stabilization with vegetation.
- b. Water spraying or dust palliative shall be used by the Permittee to control dust emissions from unpaved travel areas each active day when they are not visibly moist due to rainfall or contain a crust from application of a dust palliative. The minimum quantity of water or dust palliative to be utilized must be equivalent to the following amounts of water:

Tons refuse per day	gallons per day
300 or less	1,000
301 to 600	5,000
601 to 1000	10,000
1001 to 1500	15,000
over 1500	20,000

- c. Permittee shall not cause, suffer, allow or permit transportation of material likely to give rise to airborne dust without taking reasonable precautions to prevent particulate matter from becoming airborne.

**4. Reasonable Precautions (§4-2-040) [Currently federally enforceable pursuant to PCAQCD Reg. 4-2-040 (4/27/04) approved as a SIP element at 75 FR 17307]**

- a. Permittee shall not cause, suffer, allow, or permit a building or its appurtenances, subdivision site, driveway, parking area, vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, or fill dirt to be deposited, without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.

- b. Permittee shall not cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, such as but not limited to all-terrain vehicles, trucks, cars, cycles, bikes, or buggies, without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.
- c. Permittee shall not disturb or remove soil or natural cover from any area without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.
- d. Permittee shall not crush, screen, handle or convey materials or cause, suffer, allow or permit material to be stacked, piled or otherwise stored without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.
- e. Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material and in such a manner, or with the use of spray bars and wetting agents, as to prevent excessive amounts of particulate matter from becoming airborne. Other reasonable precautions shall be taken, as necessary, to effectively prevent fugitive dust from becoming airborne.
- f. Permittee shall not cause, suffer, allow or permit transportation of materials likely to give rise to fugitive dust without taking reasonable precautions to prevent fugitive dust from becoming airborne. Earth and other material that is tracked out or transported by trucking and earth moving equipment on paved streets shall be removed by the party or person responsible for such deposits.
- g. Permittee shall not cause, suffer, allow or permit the use, repair, construction or reconstruction of any road or alley without taking every reasonable precaution to effectively prevent fugitive dust from becoming airborne.

G. Fuel Use Limitations (Code §5-23-1010.F.)

Permittee shall only use gasoline or "low sulfur" diesel fuel, having a sulfur content of less than 0.90% by weight.

H. General Maintenance Obligation. ***[Federally enforceable pursuant to Code §6-1-030.1 and 40 CFR §60.11(d)]***

At all times, including periods of start-up, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate the permitted facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

I. Additional Applicable Limitations

1. Open Burning Prohibition ***[Federally enforceable - PGCAQCD Reg. 7-3-1.3 (3/31/75) approved as a SIP Element at 43 FR 50531 (11/15/78)]***

Unless authorized by a separate permit, open burning shall be prohibited.

2. Asbestos NESHAP Compliance ***[Currently federally enforceable; 40 CFR Part 61, Subpart M]*** (Code §§7-1-030, 7-1-060)

Permittee shall comply with Code §§7-1-030.A. and 7-1-060 and 40 CFR Part 61, Subpart M,

when conducting any renovation or demolition activities at the facility.

3. Stratospheric Ozone and Climate Protection [**Currently federally enforceable; 40 CFR Part 82 Subpart F**]

When servicing any on-site heating or cooling equipment that uses a closed-cycle refrigeration system, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, Recycling and Emissions Reduction.

4. Daily cover requirement [**Apparently federally enforceable under PCAQCD Permit A20500 §B.I.E.3 (4/22/94), and authority derived from EPA SIP-approval of predecessor PGAQCD NSR-program; see 43 FR 50531 (11/15/78)**]

Permittee shall cover disposed solid waste with at least six inches of earthen material or approved alternate cover as designated below, at the end of each operating day, or at more frequent intervals if necessary. Approved alternate cover materials include:

- a. Auto shredder fluff
- b. Wood chips
- c. Tire chips
- d. Foam

6. Compliance Demonstration [**Mandated by 40 CFR §70.6(c)**] (Code §§3-1-060.b.2.d, 3-1-081.A.2, 3-1-083)

A. Monitoring and Testing [**Mandated by 40 CFR §70.6(a)(3)**] (Code §3-1-083)

1. Fuel Use Monitoring (Code §5-23-1010.F)

Permittee shall demonstrate compliance with the fuel-sulfur limitation by maintaining fuel documentation which demonstrates diesel fuel delivered was "low sulfur" diesel fuel.

2. Soil Moisture Content Determination; Emission Inventory Revision (Code §§3-1-103, 3-7-590.C.1)

To accurately quantify actual regulated emissions associated with the use of soil as daily cover, when the tipping rate exceeds 750 tons-per-day, as averaged over the preceding twelve months, Permittee shall commence a soil-moisture testing program. Permittee shall prepare and submit for the Control Officer's approval a testing program, which at a minimum shall employ ASTM or other recognized testing methods.

The soil obtained for testing shall be collected from the bottom cut of soil stockpiled for the purposes of application of daily cover, and shall be obtained prior to the application of water for dust control. The soil testing program shall proceed on a quarterly basis, for not less than one year in order to achieve a site-specific seasonally representative soil moisture content. Since the program is not meant to be a perpetual obligation, the program shall cease upon written notification by the Control Officer that the intent and purpose of the program has been fulfilled. Subsequent emission inventory submittal shall use the test-determined average soil moisture content in calculating emissions under AP-42 Section 13.2.4-6 Eq. (1).

3. Leachate Recycling Monitoring and Testing (Code §§1-3-140.10, 3-1-103, 5-24-1030.D)

To allow verification of the projected data upon which this permit is based, Permittee shall

determine and record the volume of leachate withdrawn from the collection system.

#### 4. Collection and Control System Compliance Provisions [40 CFR §60.755(a) and (b)]

a. If the facility is required to install a collection and control system; unless an alternative is approved, the specified methods in paragraphs i. through vi. below shall be used to determine whether the gas collection system is in compliance with the requirements of this permit

i. For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance, one of the following equations shall be used. The  $k$  and  $L_o$  kinetic factors should be those published in the most recent Compilation of Air Pollution Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Control Officer. If  $k$  has been determined as specified in a Tier 3 analysis, the value of  $k$  determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

A. For sites with unknown year-to-year solid waste acceptance rate:

$$Q_m = 2L_oR(e^{-kc} - e^{-kt})$$

where

$Q_m$  = maximum expected gas generation flow rate, cubic meters per year

$L_o$  = methane generation potential, cubic meters per megagram solid waste

$R$  = average annual acceptance rate, Mg/yr

$k$  = methane generation constant, years<sup>-1</sup>

$t$  = age of the landfill at equipment installation plus the time the Permittee intends to use the gas remover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure,  $t$  is the age of the landfill at installation, years

$c$  = time since closure, years (for an active landfill  $c=0$ , and  $e^{-kc} = 1$ )

B. For sites with known year-to-year solid waste acceptance rate:

$$Q_m = \sum 2k L_o M_i (e^{-kt_i})$$

$Q_m$  = maximum expected gas generation flow rate, cubic meters per year

$k$  = methane generation constant, years<sup>-1</sup>

$L_o$  = methane generation potential, cubic meters per megagram solid waste

$M_i$  = mass of solid waste in the  $i$ th section, years

$t_i$  = age of the  $i$ th section, years

- C. If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations above. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate. Therefore, calculations using the equations above, or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.
- ii. For the purposes of determining sufficient density of gas collectors for, the Permittee shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Control Officer, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.
- iii. For the purposes of demonstrating whether the gas collection system flow rate is sufficient to determine compliance, the Permittee shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under Section §5.B.6.b. If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative time line for correcting the exceedances may be submitted to the Control Officer for approval.
- iv. The Permittee is not required to expand the system as required in subsection iii above, during the first 180 days after gas collection system startup.
- v. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the Permittee shall monitor each well monthly for temperature and nitrogen or oxygen. If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedance of other operational or performance standards. An alternative time line for correcting the exceedances may be submitted to the Control Officer for approval.
- vi. The Permittee seeking to demonstrate compliance, through the use of a collection system not conforming to the specifications provided in Section §6.A.4, shall provide information satisfactory to the Control Officer, demonstrating that off-site migration is being controlled.
- vii. For the purpose of compliance with Section §5.B.6.a, the Permittee shall place each well or design component as specified in the approved design

plan. Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

- A. 5 years or more if active; or
- B. 2 years or more if closed or at final grade.

b. **Methane Concentration Limits for an Active Collection System [40 CFR §60.755(c)]**

The following procedures shall be used to determine compliance with the surface methane operational standard.

- i. After installation of the collection system the Permittee shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or site specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in Section §6.A.4.c.
- ii. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.
- iii. Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of appendix A of the 40 CFR §60, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.
- iv. Any reading of 500 ppm or more above background at any location shall be recorded as a monitored exceedance and the action specified in A through E below shall be taken. As long as the specified actions have been taken, the exceedance is not a violation of the operational requirements.
  - A. The location of each monitored exceedance shall be marked and the location recorded.
  - B. Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.
  - C. If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, then the action specified in subsection E shall be taken, and further monitoring of that location is required until the action specified in subsection E has been taken.
  - D. Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10 day re-monitoring specified in subsections

B and C shall be re-monitored 1 month from the initial exceedance. If the 1 month re-monitoring shows a concentration less than 500 parts per million (ppm) above background, then no further monitoring of that location is required until the next quarterly monitoring period. If the 1 month re-monitoring shows an exceedance, then the actions specified in subsections C or E shall be taken.

E. For any location where the monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes, or control device, and a corresponding timeline for installation may be submitted to the Control Officer for approval.

v. The Permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

c. **Surface Emission Monitoring Devices for an Active Collection System [40 CFR §60.755(d)]**

The Permittee shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

i. The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of appendix A of 40 CFR §60, except that "methane" shall replace all references to VOC.

ii. The calibration gas shall be methane, diluted to a nominal concentration of 500 ppm in air.

iii. To meet the performance evaluation requirements in section 3.1.3 of Method 21 of appendix A of 40 CFR §60, the instrument evaluation procedures of section 4.4 of Method 21 of appendix A of 40 CFR §60 shall be used.

iv. The calibration procedures provided in section 4.2 of Method 21 of appendix A of 40 CFR §60 shall be followed immediately before commencing a surface monitoring survey.

d. The provisions specified in Section §6.A.4 apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

5. **Monitoring of Collection and Control System Operations [40 CFR §60.756(a) through (f)]**

a. **Active Collection System**

Unless an alternative has been approved:

- i. The Permittee shall install a sampling port and a thermometer, or other temperature measuring device, or an access port for temperature measurements at each wellhead and:
  - A. Measure the gauge pressure in the gas collection header on a monthly basis; and
  - B. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis; and
  - C. Monitor temperature of the landfill gas on a monthly basis.

b. Enclosed Combustors

Permittee shall calibrate, maintain, and operate according to the manufacturers specification, the following equipment:

- i. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of  $\pm 1$  percent of the temperature being measured expressed in degrees Celsius or  $\pm 0.5$  °C, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts.
- ii. A device that records flow to or bypass of the control device. Permittee shall either:
  - A. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device every 15 minutes; or
  - B. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

c. Open Flares

Permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

- i. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or at the flame itself to indicate the continuous presence of a flame.
- ii. A device that records flow to or bypass of the flare. The Permittee shall either:
  - A. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or

- B. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

- d. Surface Methane Monitoring Devices

Permittee shall monitor surface concentrations of methane according to the instrument specifications and provisions specified Section §6.A.4.c. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

- e. Other Devices

If the Permittee uses a device other than an open flare or an enclosed combustor, the Permittee shall provide information satisfactory to the Control Officer, describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Control Officer shall review the information and either approve it, or request that additional information be submitted. The Control Officer may specify additional appropriate monitoring procedures.

- f. Alternative

If the Permittee seeks to install a collection system that does not meet the specifications in Section §5.B.7 for an active collection system or seeks to monitor alternative parameters shall provide information satisfactory to the Control Officer, describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Control Officer may specify additional appropriate monitoring procedures.

- B. Recordkeeping **[Mandated by 40 CFR §70.6(a)(3)]** (Code §3-1-083.A.2)

- 1. General NSPS-related recordkeeping requirements

- a. Monitoring-related records **[Federally enforceable pursuant to Code §6-1-030.1 and 40 CFR Part 60, Subpart A, namely 40 CFR §60.7(f)]**

Permittee shall maintain, either at the source or a file of all measurements, including monitoring-system-, monitoring-device-, and performance-testing measurements; all monitoring system performance evaluations; all monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required pursuant to any federally enforceable provision of this permit, recorded in a permanent form suitable for inspection.

b. Excess emission records ***[Federally enforceable pursuant to Code §6-1-030.1 and 40 CFR §60.7(b)]***

Permittee shall maintain records of the occurrence and duration of any start-up, shutdown, malfunction or period of excess emissions in the operation of the permitted facility or any air pollution control equipment.

2. Dust suppression activity records ***[Federally enforceable - PGCAQCD Reg. 7-3-1.2 (3/31/75) approved as a SIP Element at 43 FR 50531 (11/15/78); Code §4-2-040., as limited by §1-1-105 (10/12/95), approved as SIP Elements at 61 FR 15717 (4/9/96)]***

To provide a reasonable demonstration of effort with regard to applying water for purposes of dust suppression, Permittee shall maintain a daily log for each day the facility is open, and shall enter:

- a. the quantity of refuse deposited; and either
- b. the quantity of water and/or dust palliative applied; or
- c. the reason why water or dust palliative was not applied (e.g. "it rained all day.")

3. Landfill-NSPS-specific records ***[Federally enforceable pursuant to 40 CFR §60.758.a and 60.758.b]***

~~Permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity, the current amount of solid waste in place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.~~

Permittee shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in subsections a through d of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

- a. Permittee is expected to have;
  - i. The maximum expected gas generation flow rate as calculated in Section §6.A.4.a.i. The Permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Control Officer.
  - ii. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in Section §5.B.7.a.
- b. Permittee using an enclosed combustion device other than a boiler or a process heater with a design heat input capacity equal to or greater than 44 megawatts is expected to have;
  - i. The average combustion temperature measured at least every 15

- minutes and averaged over the same time period of the performance test.
- ii. The percent reduction of NMOC determined as specified in Section III.A.1.c.ii achieved by the control device.
  - c. Permittee using a boiler or process heater of any size is expected to have a description of the location at which the gas collection vent stream is introduced into the boiler or process heater over the same time period of the performance testing.
  - d. Permittee using an open flare, the flare type (i.e. steam assisted, air assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR §60.18, is expected to have continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.
4. Collection and Control Equipment Operating Parameters ***[Federally enforceable pursuant to 40 CFR §60.758(a) and 60.758(c), (d) and (e)]***
- Permittee shall keep 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in this permit. Permittee shall have up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test were exceeded.
- a. The following constitute exceedances that shall be recorded and reported under Section §7:
    - i. For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal Units per hour) or greater, all 3 hour periods of operation during which an average combustion temperature was more than 28EC below the average combustion temperature during the most recent performance test at which compliance was determined.
    - ii. For the boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone.
  - b. The Permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key used to seal bypass lines.
  - c. If the Permittee uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater, then the Permittee shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Example of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State, local, Tribal, or Federal regulatory requirements.)
  - d. If the Permittee uses an open flare, the Permittee shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring and up-to-date, readily accessible records of all periods of operation in which the flame or flare

pilot flame is absent.

5. **Plot Map *[Federally enforceable pursuant to 40 CFR §60.758(e)]***

Permittee shall keep for the life of the collection system an up-to-date, readily accessible plot map which shows each existing and planned collector in the system and provides a unique identification location label for each collector.

- a. The Permittee shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors.
- b. The Permittee shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection, as well as any nonproductive areas excluded from collection.

6. **Exceedance Records *[Federally enforceable pursuant to 40 CFR §60.758]***

Permittee shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standard of this permit, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

7. **Stratospheric Ozone and Climate Protection *[Currently federally enforceable; 40 CFR Part 82 Subpart F]***

If Permittee elects to allow disposal of devices that once used refrigerants for cyclical heating or cooling, Permittee shall retain records adequate to show continuing compliance, including as necessary:

- a. Copies of the signed written statements, affirming regarding refrigerant removal from small appliances, motor vehicle air conditioners, or motor-vehicle-air-conditioner-like appliances, shall be kept on-site; and
- b. Copies of the signed written statements from those disposing of appliances not covered under the preceding sub-paragraph, verifying customer-compliance with the certification requirements under 40 CFR §82.154.e; or
- c. Copies of verifications from "qualified parties" into whose hands Permittee is disposing of such items, as outlined above.

8. **Startup, Shutdown and Malfunction Recordkeeping *[Currently Federally Enforceable, 40 CFR §63.1980(b) and §63.10(b)]***

Permittee shall maintain relevant records of the following:

- a. The occurrence and duration of each startup, shutdown or malfunction of operation (i.e. process equipment),
- b. The occurrence and duration of each malfunction of the required air pollution control and monitoring equipment,
- c. All required maintenance performed on the air pollution control and monitoring

equipment,

- d. Actions taken during SSM periods (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the SSM plan,
- e. All information necessary to demonstrate conformance with the SSM plan when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the SSM plan may be recorded using a checklist, or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events)

## 7. Reporting Obligations

### A. Regular Compliance Reporting **[Mandated by 40 CFR §§70.6(a)(3)]** (Code §3-1-083.A.3.a)

Permittee shall submit a semi-annual report containing a summary of the information required to be recorded pursuant to this permit, which summary shall clearly show that Permittee has complied with the operational and emissions limitations under this permit. All instances of deviations from permit requirements shall be clearly identified in such reports. For brevity, such deviation reports may incorporate by reference any written supplemental upset reports filed by Permittee during the reporting period. The report shall be submitted to the District within 30 days after the end of each calendar half. Appendix A of this permit is a form which may be used for the report.

### B. Regular Compliance/Compliance Progress Certification **[Mandated by 40 CFR §70.6(c)(5)]** (Code §3-1-083.A.4)

Permittee shall annually submit a certification of compliance with the provisions of this permit. The certification shall be separately submitted to both the District and to the ~~Regional Administrator of Air Division Permits Office~~ **Enforcement Office (AIR 5)**, EPA Region IX, 75 Hawthorne Street, San Francisco, CA 94105-3901. The certification shall:

1. Be signed by a responsible official, as defined in Code §3-1-030.18;
2. Identify each term or condition of the permit that is the basis of the certification;
3. State the compliance status with respect to each such term or condition;
4. State whether compliance with respect to each such term or condition has been continuous or intermittent;
5. Identify the method(s) used for determining the compliance status of the source, currently and over the reporting period; and
6. Be postmarked within thirty (30) days of the start of each calendar year.

### C. Annual emissions inventory [Code §§3-1-103, 3-7-590.C.1.]

~~Since this source would be subject to an ADEQ permitting requirement, Permittee shall complete and submit to the District an annual emissions inventory, disclosing actual emissions for the preceding calendar year. The submittal shall be made on a form provided by the District. The inventory is due by the latter of March 31, or ninety (90) days after the form is furnished by the District.~~

D. Reporting Operational Changes

1. Asbestos NESHAP Emission Standards; Standard for Active Waste Disposal Sites; Closure Notification [Currently federally enforceable; 40 CFR Part 61, Subpart M] (Code §§7-1-030, 7-1-060)

- a. Closure notification requirement

Upon facility closure, Permittee shall:

- i. Submit to the Control Officer a copy of the asbestos waste disposal locations and quantities.
- ii. Comply with all of the requirements of 40 CFR §61.151, including those pertaining to post-closure obligations.

E. NSPS Reporting ***[Federally enforceable pursuant to Code §6-1-030.1 and 40 CFR §60.7(a)(4)]***

1. Generally

Permittee shall provide to the District and to the Regional EPA Office (Regional Administrator c/o Air Division Permits Office, EPA Region IX, 75 Hawthorne Street, San Francisco, CA 94105-3901) notification of any physical or operational change which may increase the emission rate of any air pollutant to which a standard applies, unless the change is specifically exempted under 40 CFR § 60.14(e) or 40 CFR Part 60, Subpart WWW. The notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change.

2. Landfill NSPS & NESHAP Annual Emission Estimate Reports ***[Federally enforceable pursuant to 40 CFR §60.757 and §63.1980(a), (b)]***

- a. See §5.B. above.

- b. Permittee is exempted from the requirements of Sections §§5.E.2. a. and b. after the installation of a collection and control system in compliance with Section §5.B.4 during such time that the collection and control system is in operation and in compliance with this permit.

- c. If actions taken by the Permittee during SSM of the source (including actions taken to correct a malfunction) are consistent with the procedures specified in the SSM plan, the Permittee shall state such information in an SSM report. Such a report shall identify any instance where any action taken by the Permittee during SSM (including actions taken to correct a malfunction) is not consistent with the SSM plan, but the source does not exceed any applicable emission limitation in the relevant emission standard. Such a report shall also include the number, duration, and a brief description for each type of malfunction which occurred during the

reporting period and which caused or may have caused any applicable emission limitation to be exceeded. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The SSM report shall consist of a letter, containing the name, title and signature of the Permittee or other responsible official who is certifying its accuracy, which shall be submitted to the Control Officer semiannually. The SSM report shall be delivered or postmarked by the 30<sup>th</sup> day following the end of each calendar half.

- d. Any time an action taken by the Permittee during an SSM event is not consistent with the procedures specified in the SSM plan, and the source exceeds any applicable emission limitation in the relevant emission standard, the Permittee shall report the actions taken for that event (via telephone call or facsimile transmission) to the Control Officer within 2 working days after commencing actions inconsistent with the plan followed by a letter (containing the name, title and signature of the responsible official who is certifying its accuracy) delivered or postmarked within 7 working days after the end of the event. The letter shall explain the circumstances of the event, the reasons for not following the SSM plan, and describe all excess emissions and/or parameter monitoring exceedances which are believed to have occurred.

### 3. Active Collection Systems Semi Annual Report

The Permittee using an active collection system shall submit to the Control Officer reports of the recorded information in paragraphs 1-6 of this section every 6 months. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR §60.8. For enclosed combustion devices and flares, reportable exceedances are defined in Section §6.B.4.

- a. Value and length of time for exceedance of applicable parameters monitored.
- b. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow.
- c. Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.
- d. All periods when the collection system was not operating in excess of 5 days.
- e. The location of each exceedance of the 500 ppm methane concentration, and the concentration recorded at each location for which an exceedance was recorded in the previous month.
- f. The date of installation and the location of each well or collection system expansion added.

### 4. Collection System Report

Permittee shall include the following information with the initial performance test report required under 40 CFR §60.8:

- a. A diagram of the collection system showing collection system positioning including

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

- b. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;
- c. The documentation of the presence of asbestos or nondegradable material for each from which collection wells have been excluded based on the presence asbestos or nondegradable material;
- d. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on non-productivity and the calculations of gas generation flow rate for each excluded area;
- e. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill;
- f. The provisions for controlling off-site migration.

#### 5. Equipment Removal

The Permittee shall submit an equipment removal report to the Control Officer 30 days prior to removal or cessation of operation of the control equipment.

- a. The equipment removal report shall contain all of the following items:
  - i. A copy of the closure report submitted in accordance with Section §7.E.6 below.
  - ii. A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and
  - iii. Dated copies of three successive NMOC emissions rate reports demonstrating that the landfill is no longer producing 50 Mg/yr or greater of NMOC.
- b. The Control Officer may request such additional information as may be necessary to verify that all of the conditions for removal have been met.

#### 6. Closure Report

The Permittee shall submit a closure report to the Control Officer within 30 days of waste acceptance cessation. The Control Officer may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR §258.60. If a closure report has been submitted to the Control Officer, no additional wastes may be placed into the landfill without filing a notification of modification as described in 40 CFR §60.7(a)(4).

#### F. Deviation Reporting Requirement **[Mandated by 40 CFR §§70.6(a)(3)(iii)(B), 70.6(g)]** (Code §3-1-083.A.3.b.)

Permittee shall report any deviation from the requirements of this permit along with the probable cause for such deviation, and any corrective actions or preventative measures taken to the District within ten

days of the earlier of date the Permittee learned, or should have learned, of the deviation unless earlier notification is required by the provisions of this permit.

G. **Asbestos NESHAP Reporting Requirements [ *Currently federally enforceable; 40 CFR Part 61, Subpart M*] (Code §§7-1-030, 7-1-060)**

1. Receipt handling and disposal of asbestos containing waste received from sources covered by 40 CFR §61.159 (asbestos mills), 40 CFR §61.150 (demolition, renovation, fabricating and manufacturing), or 40 CFR §61.155 (asbestos conversion operations) must meet the following standards:
  - a. If Permittee discovers improperly enclosed or uncovered asbestos-containing waste materials, or any asbestos-containing waste materials not sealed in leak-tight containers, Permittee shall by the following working day report in writing to the Control Officer, as well as to any additional local, State or EPA Regional Office responsible for administering the asbestos NESHAP program for the waste generator, reporting the incident and submitting a copy of the waste shipment record.
  - b. If Permittee discovers a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, Permittee shall attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, Permittee shall immediately report in writing to the Control Officer, as well as to any additional local, State, Or EPA Regional Office responsible for administering the asbestos NESHAP program for the waste generator, describing the discrepancy, the attempts to reconcile the discrepancy, and submit an accompanying copy of the waste shipment record.

8. **Fee Payment [Mandated by 40 CFR §§70.6(a)(7), 70.9] (Code §3-1-081.A.9)**

As an essential term of this permit, an annual permit fee shall be assessed by the District and paid by Permittee in accord with the provisions of Code Chapter 3, Article 7 generally, and Code §3-1-081.A.9. specifically. The annual permit fee shall be due on or before the anniversary date of the issuance of an individual permit, or formal grant of approval to operate under a general permit. the District will notify the Permittee of the amount to be due, as well as the specific date on which the fee is due.

9. **General Conditions**

A. **Term [Mandated by 40 CFR §70.6(a)(2)] (Code §3-1-089)**

This permit shall have a term of five (5) years, measured from the date of issuance.

B. **Basic Obligation [Mandated by 40 CFR §§70.4(b)(15), 70.6(a)(6)(i), 70.6(a)(6)(ii), 70.7.b] (Code §3-1-081.)**

1. The owner or operator ("Permittee") of the facilities shall operate them in compliance with all conditions of this permit, the Pinal County Air Quality Control District ("the District") Code of Regulations ("Code"), and consistent with all State and Federal laws, statutes, and codes relating to air quality that apply to these facilities. Any permit noncompliance is grounds for enforcement action; for a permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application and may additionally constitute a violation of the Clean Air Act (1990).

2. All equipment, facilities, and systems used to achieve compliance with the terms and conditions of this permit shall at all times be maintained and operated in good working order.
3. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

C. Duty to Supplement Application **[Mandated by 40 CFR §§70.5(b), 70.6(a)(6)(v)]** (Code §3-1-081.A.8.e.)

Permittee shall furnish to the District within a reasonable time, which shall not exceed thirty days unless the Control Officer fixes some other time period for response, any information that the Control Officer may request in writing to determine whether cause exists for revising, revoking, reissuing, or terminating this permit or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Control Officer copies of records required under this permit. For information claimed to be confidential, Permittee shall submit along with the requested information or records a showing as required under Code §3-1-120, and shall separately submit a full duplicate copy to the EPA Regional Office (Regional Administrator c/o Air Division Permits Office, EPA Region IX, 75 Hawthorne Street, San Francisco, CA 94105-3901).

D. Right to Enter **[Mandated by 40 CFR §70.6(c)(2)]** (Code §§ 3-1-083.A.6, 3-1-132)

Authorized representatives of the District shall, upon presentation of proper credentials and while observing reasonable standard safety requirements as set forth by the owner or operator of the source, be allowed for purposes of ascertaining compliance with this permit and with other applicable requirements:

1. to enter upon the premises where the source is located, where emissions-related activity is conducted, or in which any records are required to be kept under the terms and conditions of this permit;
2. to inspect any equipment, operation, or method required in this permit; and
3. to sample or monitor emissions from the source, or other substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements;
4. to have access to and copy, at reasonable times, any records that are required to be kept under the conditions of this permit; and
5. to record any inspection by use of written, electronic, magnetic and photographic media.

E. Transfer of Ownership **[Mandated by 40 CFR §70.7(d)(4)]** (Code §3-1-090)

This permit may be transferred under an administrative permit amendment from one person to another by notifying the District at least 30 days in advance of the transfer. The notice shall contain all the information and items required by Code § 3-1-090. The transfer may take place if not denied by the District within 10 days of the receipt of the transfer notification.

F. Posting of Permit (Code §3-1-100)

Permittee shall firmly affix the permit, an approved facsimile of the permit, or other approved identification bearing the permit number, upon such building, structure, facility or installation for which the permit was issued. In the event that such building, structure, facility or installation is so constructed

or operated that the permit cannot be so placed, the permit shall be mounted so as to be clearly visible in an accessible place within a reasonable distance of the equipment or maintained readily available at all times on the operating premises.

G. Permit Revocation for Cause ***[Mandated by 40 CFR §70.6(a)(6)(iii)]*** (Code §3-1-140)

The Director of the District ("Director") may issue a notice of intent to revoke this permit for cause pursuant to Code §3-1-140, which cause shall include occurrence of any of the following:

1. The Director has reasonable cause to believe that the permit was obtained by fraud or material misrepresentation;
2. Permittee failed to disclose a material fact required by the permit application form or a regulation applicable to the permit;
3. The terms and conditions of the permit have been or are being violated.

H. Certification of Truth, Accuracy, and Completeness ***[Mandated by 40 CFR §§70.5(a)(2), 70.6(a)(3)(iii)(B)] [Federally enforceable - Code §§3-1-083.A.5, 3-1-175 (as amended 10/12/95) approved as SIP Elements at 61 FR 15717 (4/9/96)]***

Any application form, report, or compliance certification submitted pursuant to the Code shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under Chapter 3 of the Code shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

I. Renewal of Permit ***[Mandated by 40 CFR §§70.5(a)(1)(iii), 70.7(c)]*** (Code §3-1-050.C.2)

Expiration of this permit will terminate the facility's right to operate unless either a timely application for renewal has been submitted in accordance with §§3-1-050, 3-1-055 and 3-1-060, or a substitute application for a general permit under §3-5-490. For Class I permit renewals, a timely application is one that is submitted at least 6 months, but not greater than 18 months prior to the date of the permit expiration. For Class II or Class III permit renewals, a timely application is one that is submitted at least 3 months, but not greater than 12 months prior to the date of permit expiration.

J. Severability ***[Mandated by 40 CFR §70.6(a)(5)]*** (Code §3-1-081.A.7)

Pursuant to Code §3-1-081.A.7., the provisions of this permit are severable, and if any provision of this permit is held invalid the remainder of this permit shall not be affected thereby.

K. Permit Shield ***[Mandated by 40 CFR §70.6(f)]*** (Code §3-1-102.)

Subject to the following schedule of exclusions<sup>1</sup>, compliance with the terms of this permit shall be deemed compliance with any applicable requirement identified in this permit. The permit-shield exclusions include:

1. PGCAQCD Rule §7-3-1.3 OPEN BURNING;
2. Any part of 40 CFR Part 60, Subpart WWW not expressly listed as an Applicable Requirement

---

<sup>1</sup> See the Technical Support Document for an explanation of the exclusions.

in §2 of this permit<sup>2</sup>.

- L. Permit Revisions **[Mandated by 40 CFR §70.7(d), 70.7(e)]** (Code Chapter 3, Article 2, specifically Code §3-1-081.A.8.c)
1. This permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
  2. Permit amendments, permit revisions, and changes made without a permit revision shall conform to the requirements in Article 2, Chapter 3, of the Code.
- M. Permit Re-opening **[Mandated by 40 CFR §§70.6(a)(6)(iii), 70.7(f), 70.7(g)]** (Code §3-1-087.)
1. This permit shall be reopened if either:
    - a. Additional applicable requirements under the Clean Air Act (1990) become applicable to this source, and on that date, this permit has a remaining term of three or more years. Provided, that no such reopening under this subparagraph is required if the effective date of the newly applicable requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to Code §3-1-089.C.
    - b. The Control Officer determines that it contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of it;
    - c. The Control Officer determines that it needs to be revised or revoked to assure compliance with the applicable requirements; or
    - d. The EPA Administrator finds that cause exists to terminate, modify, or revoke and reissue this permit.
  2. If this permit must be reopened for cause, the District will notify the permittee in accord with Code §3-1-087.A.3.
- N. Record Retention **[Mandated by 40 CFR §70.6(a)(3)(ii)(B)]** (Code §3-1-083.A.2.b)
- Permittee shall retain for a period of five (5) years all documents required under this permit, including reports, monitoring data, support information, calibration and maintenance records, and all original recordings or physical records of required continuous monitoring instrumentation.
- O. Scope of License Conferred **[Mandated by 40 CFR §70.6(a)(6)(iv)]** (Code §3-1-081.A.8.d)
- This permit does not convey any property rights of any sort, or any exclusive privilege.
- P. Excess Emission Reports; Emergency Provision **[Mandated by 40 CFR §70.6(g)]** (Code §3-1-

---

<sup>2</sup> Note that this permit includes both incorporation-by-reference of the substance of the Landfill NSPS, and also includes a number of paraphrased translations of the Landfill NSPS requirements. In so doing, this permit intends those paraphrased provisions to constitute limited guidance as to achieve *prima facie* compliance with the NSPS, but to still invoke the literal language of the standard itself as the legal standard with which the Permittee must comply in order to actually invoke a "shield."

## 081.E, Code §8-1-030)

1. To the extent Permittee may wish to offer a showing in mitigation of any potential penalty, underlying upset events resulting in excess emissions shall reported as follows:
  - a. The permittee shall report to the Control Officer any emissions in excess of the limits established by this permit. Such report shall be in two parts:
    - i. Notifications by telephone or facsimile within 24 hours or the next business day, whichever is later, of the time when the owner or operator first learned of the occurrence of excess emissions, including all available information required under subparagraph b. below.
    - ii. Detailed written notification within 3 working days of the initial occurrence containing the information required under subparagraph b. below.
  - b. The excess emissions report shall contain the following information:
    - i. The identity of each stack or other emission point where the excess emissions occurred.
    - ii. The magnitude of the excess emissions expressed in the units of the applicable limitation.
    - iii. The time and duration or expected duration of the excess emissions.
    - iv. The identity of the equipment from which the excess emissions occurred.
    - v. The nature and cause of such emissions.
    - vi. If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions.
    - vii. The steps that were or are being taken to limit the excess emissions. To the extent this permit defines procedures governing operations during periods of start-up or malfunction, the report shall contain a list of steps taken to comply with this permit.
    - viii. To the extent excess emissions are continuous or recurring, the initial notification shall include an estimate of the time the excess emissions will continue. Continued excess emissions beyond the estimated date will require an additional notification.
2. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
3. An emergency constitutes an affirmative defense to an action brought for noncompliance with

such technology-based emission limitations if the conditions of the following subparagraph are met.

4. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
  - b. The permitted facility was at the time being properly operated;
  - c. During the period of emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
  - d. The permittee submitted notice of the emergency to the Control Officer by certified mail or hand delivery within 2 working days of the time when emissions limitations were exceeded due to emergency. The notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

**10. Additional provisions applicable to Title V Sources** *(Code §3-1-081.B.2)*

Subject to the following specific exclusions, all terms and conditions of this permit are enforceable by the Administrator and citizens under the Clean Air Act. The exclusions include:

- A. Section 1. Introduction
- B. Section 9.F Posting of Permit
- C. Section 12 Emission Inventory Table

**11. Equipment Schedule** *[Mandated by 40 CFR §70.5(c)(3)(iii)] (Code §3-1-040.A)*

Equipment for which emissions are allowed by this permit are as follows:

- A. One landfill facility, consisting of 128.9 acres, more or less.
- B. 55 hp diesel compressor.
- C. 11.5 hp gasoline compressor.
- D. 1-1,000 gallon highway diesel fuel storage tank and 1-10,000 gallon off road diesel fuel storage tank.
- E. **Candlestick Flare, 12.14 MMBtu/hr, Landmarc Model L2005, Serial #CS, Manufactured in 2005.**

**12. Emission Inventory Table**

---

For a description of potential and actual emissions, see Technical Support Document for this permit.

**Abstract** - This constitutes a semi-annual report, documenting emissions and emission-related activity during the subject reporting period.

**Facility** - Apache Junction Landfill  
4050 South Tomahawk Rd.  
Apache Junction, Arizona

**Reporting Period** - January-June \_\_\_\_ or July-December \_\_\_\_ Year \_\_\_\_\_

**Parametric emissions report**

Waste deposited \_\_\_\_\_ (This period)  
QuantityUnits

**Record generation verification**

- | Were the required records of each of the following maintained?   | Yes                      | No                       |
|--|--------------------------|--------------------------|
| <input type="radio"/> Water/dust palliative sprayed for dust suppression? .....                                  | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="radio"/> Leachate collected and re-applied? .....   | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="radio"/> Asbestos cell size and location? .....   | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="radio"/> Asbestos waste shipment records? .....   | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="radio"/> Did this facility prohibit disposal of refrigerant-containing mechanical equipment?        | <input type="checkbox"/> | <input type="checkbox"/> |
| If on-site disposal was allowed, were written statements collected regarding refrigerant removal from            |                          |                          |
| • small appliances/MVACs? .....  | <input type="checkbox"/> | <input type="checkbox"/> |
| • larger appliances? .....   | <input type="checkbox"/> | <input type="checkbox"/> |
| If collected equipment is disposed off-site, is written verification of contractor certification retained? ..... |                          |                          |
| <input type="radio"/> The sulfur content in diesel fuel? .....   | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="radio"/> Did this facility experience any excess emission incidents? .....                          | <input type="checkbox"/> | <input type="checkbox"/> |
| If so, were excess emission reports timely filed? .....  | <input type="checkbox"/> | <input type="checkbox"/> |

**Certification by Responsible Official**

I certify that, based on information and belief formed after reasonable inquiry, that the statements and information in this report are true, accurate and complete.

Signed \_\_\_\_\_

Printed Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

**Mail to** - Pinal County Air Quality Control District  
PO Box 987  
Florence, AZ 85132

