

**AIR QUALITY**  
MANAGEMENT DISTRICT**STATEMENT OF BASIS  
FOR  
2nd RENEWAL OF TITLE V FEDERAL OPERATING PERMIT**

<b>APPLICATION NO.:</b>	<u>TV2011-08-01</u>
<b>DATE:</b>	<u>November 15, 2011</u>
<b>REVIEWING ENGINEER:</b>	<u>Felix Trujillo, Jr.</u>

**A. FACILITY INFORMATION**

**FACILITY NAME:** 28<sup>th</sup> Street Landfill  
Solid Waste Division  
Department of Utilities  
City of Sacramento

**LOCATION:** 20 28<sup>th</sup> Street  
Sacramento, CA

**MAILING ADDRESS:** 2812 Meadowview Road  
Sacramento, CA 95832

**RESPONSIBLE OFFICIAL:** Marty Hanneman, Director  
Department of Utilities  
City of Sacramento  
(916) 808-7508

**CONTACT PERSON:** John Olesen, Senior Landfill Engineering Technician  
Solid Waste Division  
Department of Utilities  
City of Sacramento  
(916) 264-7132

**B. PURPOSE OF THIS STATEMENT OF BASIS**

The Title V Federal Operating Permit is intended to be a document containing only enforceable terms and conditions as well as any additional information, such as the identification of emission units, emission points, emission sources and processes that makes the terms meaningful. 40 CFR Part 70.7(a)(5) requires that each Title V permit have an accompanying "...statement that sets forth the legal and factual basis for the draft permit conditions". The purpose of this Statement of Basis is to satisfy the above requirement by providing pertinent details regarding the permit/application data and permit conditions in a more easily understandable format. This report will also include background narrative and explanations of regulatory decisions made by the reviewer. It should be emphasized that this Statement of Basis, while based on information contained in the permit, is a separate document and is not itself an enforceable term and condition of the permit.

### C. PERMIT HISTORY

This Statement of Basis is for the second renewal of the initial Title V Federal Operating Permit issued to 28th Street Landfill, City of Sacramento on March 27, 2002. The current Title V Federal Operating Permit has a March 27, 2012 expiration date. The following permit actions have occurred since the initial Federal Operating Permit was issued:

<u>Permit Action</u>	<u>Date</u>	<u>Permit No.</u>
Initial Permit	03-27-2002	TV1996-08-01
1st Minor Modification	02-03-2004	TV1996-08-02
1st Permit Renewal	03-27-2007	TV2006-08-01
1st Administrative Amendment	10-05-2010	TV-2006-08-01A

This 2nd permit renewal will be assigned the following permit number: TV2011-08-01.

## **D. FACILITY DESCRIPTION**

The City of Sacramento's 28th Street Landfill is an inactive municipal solid waste landfill located at 28th and A streets in the City of Sacramento. The site is operated by the City of Sacramento Department of Utilities, Solid Waste Division. The landfill footprint, which is comprised of Waste Management Unit A (WMU-A) and Waste Management Unit B (WMU-B), is approximately 107 acres. The 28th Street Landfill began accepting waste into WMU-A in 1968 and completed filling WMU-A in 1986. The 28th Street Landfill began accepting waste into WMU-B in 1986 and completed filling WMU-B in 1994. The landfill stopped receiving waste in September 1994.

Decomposing waste encapsulated within the landfill produces a gas by-product that is primarily composed of methane, carbon dioxide and non-methane organic compounds (NMOC). Landfill gas (LFG) is primarily emitted through two sources. LFG can be emitted as fugitive gas through cover soils or through a landfill gas collection system.

Fortistar operates the landfill gas collection system that serves WMU-A and WMU-B under a contract with the City of Sacramento. The collected landfill gas from WMU-A and WMU-B is sent to Blue Diamond Almond Growers as fuel for their boiler and/or to one of two landfill gas flares on the landfill site for destruction.

The City of Sacramento operates the landfill gas collection system that serves the landfill's perimeter wells. The collected landfill gas from the perimeter wells is also sent to Blue Diamond Almond Growers as fuel for their boiler and/or to one of two landfill gas flares on the landfill site for destruction.

There are two landfill gas flares at the 28th Street Landfill. The first was constructed in 1990 and the second in 1997. Each flare is used and the other serves as a back-up on an as-needed basis. The 1990 landfill gas flare and the 1997 landfill gas flare do not operate at the same time. Each flare is capable of operating 24 hours/day and 365 days/year.

## **D. SIGNIFICANT EMISSIONS UNIT INFORMATION**

### **LANDFILL AND LANDFILL GAS COLLECTION SYSTEM**

SMAQMD P/O No. 12762(Rev01)

The landfill is equipped with a gas collection system consisting of perimeter wells and interior wells. Vacuum is drawn through the wells via a centrifugal blower. The blower moves the collected landfill gas to the flare or Blue Diamond Almond Grower's boiler.

### **LANDFILL GAS FLARE 1990**

SMAQMD P/O No. 9314(Rev01)

The flare is designed to meet a non-methane organic compound destruction efficiency of 98% while operating at approximately 1475 degrees F with a residence time of 0.6 seconds.

John Zink, Model No. ZTOF, 1,500 scfm, 41 MMBTU/hr (at 455 BTU/cubic foot of landfill gas)

### **LANDFILL GAS FLARE 1997**

SMAQMD P/O No. 14749(Rev01)

The flare is designed to meet a non-methane organic compound destruction efficiency of 98% while operating at approximately 1525 degrees F with a residence time of 0.6 seconds.

John Zink, Model No. ZTOF, 2,000 scfm, 54.6 MMBTU/hr (at 455 BTU/cubic foot of landfill gas)

**F. INSIGNIFICANT EMISSIONS UNIT INFORMATION**

<b>Equipment Description</b>	<b>Basis for Determination of Insignificant Emissions Unit is made based on SMAQMD "List and Criteria", Part B, Section 5 modified April 2001.</b>
Vehicles used to transport passengers or freight	I. General criteria for insignificant activities. a. Not subject to a preconstruction permit.
Small internal combustion engines used for welders, compressors and generators.	II.B.2 Any piston-type IC engine with a manufacturer's maximum continuous rating of no more than 50 bhp.
Storage containers for liquefied or compressed gases	II.J Any equipment used exclusively for the storage of liquefied gases in unvented (except for emergency pressure-relief valves) pressure vessels.
Storage containers for diesel fuel, compressor oil or lubricants with a vapor pressure of 0.1 psia or less	II.H.1 Any equipment used exclusively for the storage of unheated organic material with: a. An initial boiling point of 302 degrees F or greater; or b. A vapor pressure of no more than 0.1 psia.
Storage containers for diesel fuel, compressor oil or lubricants with a vapor pressure of 1.5 psia or less and a storage capacity of 6076 gallons or less	II.H.3 Any equipment with a capacity of no more than 6,077 gallons used for the storage of unheated organic liquids with a vapor pressure of no more than 1.5 psia.

<b>G. ALTERNATE OPERATING SCENARIOS</b>
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None requested by the permittee.

## **H. RECENT PERMIT ACTIONS**

There have been no recent permit actions since the last update to the Title V permit under TV-2006-08-01A.

**I. FACILITY EMISSIONS**

Equipment	Maximum Potential to Emit tons per year							
	ROC	NOx	PM10	SO2	CO	Single HAP	Total HAPs	GHG
Landfill and Landfill Gas Collection System	3.2 (A)	0	0	0	0	0.03	0.17	--
Flare 1990 (B)	1.8	15	10	1.4	90	1.50	1.54	--
Flare 1997 (B)	1.8	15	13	1.8	48	1.50	1.54	--
Total	5	15	13	2	90	1.53 (C)	1.71 (C)	3,537.1 (D)

- (A) Based on worst case landfill gas concentration of 822 ppm NMOC in uncollected fugitive landfill gas, 2,353 scfm total landfill gas produced, 24 hours/day, 365 days/year and an 85% collection efficiency for landfill gas by the landfill gas collection system.
- (B) The flares do not operate simultaneously. Emissions from each flare are based on operating at maximum capacity, 24 hours/day and 365 days/year. Therefore emissions from the 1990 flare and 1997 flare are not additive to total emissions. The larger emission of the two flares was added to the total emissions.
- (C) Based on documentation in the initial Title V application.
- (D) Based on permittee's 2010 GHG emissions inventory report submitted to U.S. EPA (3,208.8 metric tons/year). Does not include biogenic CO2 emissions.

**J. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS**  
**1. Facility-wide Requirements**

**SMAQMD Rule 201 - General Permit Requirements**

SIP approved: 07-13-1987 (52 FR 26148)  
11-20-1984 rule version SIP approved  
08-24-2006 rule version is the current version and is not SIP approved

Rule Description: This rule provides an orderly procedure for the review of new sources of air pollution and of the modification and operation of existing sources through the issuance of permits.

Compliance Status: The permittee has active permits for all sources that require permits.

**SMAQMD Rule 202 - New Source Review**

SIP approved: SIP approval of 11-20-1984 rule version was withdrawn on 8-19-2011  
10-28-2010 rule version is the current version and is not SIP approved.  
This Rule is not Federally enforceable

Rule Description: This rule sets the procedures for review of new and modified stationary sources and provides the mechanisms for evaluating the applicability of BACT and/or offset requirements.

Compliance Status: New and modified stationary sources at the permittee's facility have been reviewed pursuant to this rule. BACT and/or emission offsets have been provided as required by the rule.

**SMAQMD Rule 207 - Title V Federal Operating Permits**

SIP approved: 11-21-2003 (68 FR 65637) (part of Title V program approval)  
04-26-2001 rule version is SIP approved

Rule Description: This rule sets forth the procedures for review, issuance and renewal of Title V operating permits.

Compliance Status: The permittee has submitted a timely and complete Title V application for permit renewal in this current permitting action and is currently operating under an active Title V permit.

**SMAQMD Rule 214 - Federal New Source Review**

SIP approved: 07-20-2011 (76 FR 43183)

Rule Description: This rule sets the procedures for review of emissions units at new and modified major stationary sources and provides the mechanisms for

**J. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS**  
**1. Facility-wide Requirements**

evaluating the applicability of BACT and/or offset requirements.

Compliance Status: This is a recently adopted and SIP approved rule. The facility's equipment will be reviewed pursuant to this rule for all future permitting actions.

**SMAQMD Rule 301 – Permit Fees – Stationary Source**

SIP approved: Rule adopted 10-27-2005  
Latest rule revision 08-01-08

The rule is not SIP approved but the portions of the rule related to Title V permit fees are applicable because they are part of the SMAQMD Title V Federal Operating Permit program approved by U.S. EPA on 11-21-2003 (68 FR 65637).

Rule Description: This rule requires the facility to pay fees associated with the issuance and renewal of Title V permits.

Compliance Status: The permittee has paid permit fees as required and is in compliance.

**SMAQMD Rule 401 - Ringelmann Chart**

SIP approved: 02-01-1984 (49 FR 3987)  
*04-19-1983 rule version is SIP approved*

Rule Description: This rule limits the discharge of air contaminants into the atmosphere by limiting visible emissions.

Compliance Status: All equipment at the permittee's facility is expected to comply with the visible emissions requirement.

**SMAQMD Rule 403 - Fugitive Dust**

SIP approved: 12-05-1984 (49 FR 47490):  
*08-03-1977 rule version is SIP approved*

Rule Description: This rule regulates operations which may cause fugitive dust emissions into the atmosphere.

Compliance Status: The permittee's facility complies with this rule by taking the necessary precautions to ensure that fugitive dust is not airborne beyond the property line.

<b>J. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS</b> <b>1. Facility-wide Requirements</b>
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**SMAQMD Rule 442 - Architectural Coatings**

SIP approved: 11-09-1998 (63 FR 60214)  
*09-05-1996 rule version is SIP approved*  
*05-24-2001 rule version is the current version and is not SIP approved*

Rule Description: This rule limits the quantity of volatile organic compounds in architectural coatings supplied, sold, offered for sale, applied, solicited for application or manufactured for use within the SMAQMD.

Compliance Status: The affected coatings used by the permittee are received and stored in containers that display the required manufacturer's labels and demonstrate compliance with the rule's requirements.

**SMAQMD Rule 466 - Solvent Cleaning**

SIP approved: 05-05-2010 (75 FR 24406)  
*10-28-2010 rule version is SIP approved*

Rule Description: This rule reduces the emissions of volatile organic compounds from solvent cleaning operations and activities, and from the storage and disposal of new and spent cleaning solvents.

Compliance Status: The affected architectural coating application equipment solvent cleaning materials used by the facility are received and stored in containers that display the required manufacturer's labels and demonstrate compliance with the rule's requirements.

**40 CFR 68 (begin at 68.1) - Chemical Accident Prevention Provisions**

Promulgated: 01-31-1994 (59 FR 4493)  
[04-09-2004 (69 FR 18831) most recent amendment]

Rule Description: This regulation specifies requirements for owners or operators of stationary sources concerning the prevention of accidental chemical releases.

An owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, must comply with the requirements of 40 CFR Part 68.

40 CFR 68.215 requires that the air permitting authority include in the Title V permit for a facility specified statements regarding the regulation. Those statements are included in the Federally Enforceable Requirements - General section of the permit.

**J. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS**  
**1. Facility-wide Requirements**

Compliance Status: The permittee does not store regulated substances in quantities exceeding the thresholds specified in 40 CFR 68 and is in compliance with the requirements of the regulation.

**40 CFR 82 Subpart F (begin at 82.150) - Protection of Stratospheric Ozone - Recycling and Emissions Reduction:**

Promulgated: 05-14-1993 (58 FR 28712)  
[04-13-2005 (70 FR 19278) most recent amendment]

Rule Description: The purpose of this subpart is to reduce emissions of class I and class II refrigerants and their substitutes to the lowest achievable level by maximizing the recapture and recycling of such refrigerants during the service, maintenance, repair and disposal of appliances and restricting the sale of refrigerants consisting in whole or in part of a class I and class II ODS in accordance with Title VI of the Clean Air Act.

This subpart applies to any person servicing, maintaining or repairing appliances. This subpart also applies to persons disposing of appliances, including small appliances and motor vehicle air conditioners. In addition, this subpart applies to refrigerant reclaimers, technician certifying programs, appliance owners and operators, manufacturers of appliances, manufacturers of recycling and recovery equipment, approved recycling and recovery equipment testing organizations, persons selling class I or class II refrigerants or offering class I or class II refrigerants for sale and persons purchasing class I or class II refrigerants.

As indicated in 40 CFR 70.6, Title V permits need to assure compliance with all applicable requirements at the time of permit issuance. Part 70 defines as an applicable requirement, "Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the Act, unless the Administrator has determined that such requirements need not be contained in a Title V permit." [40 CFR 70.2(12)]. The applicable requirements of Title VI are included in the Federally Enforceable Requirements - General section of the permit.

Compliance Status: The permittee employs qualified contractors to maintain equipment that contains class I or class II refrigerants.

**J. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS**  
**1. Equipment Specific Requirements**  
**a. Combustion Sources Only**  
**(2) Flares, LFG**

**SMAQMD Rule 406 - Specific Contaminants**

SIP approved: 12-05-84 (49 FR 47490)  
*12-06-1978 rule version is SIP approved*

Rule Description: This rule regulates emissions of sulfur compounds and combustion contaminants by limiting emission concentrations. The rule limits the emission of sulfur compounds, calculated as SO<sub>2</sub> to 0.2% by volume. The rule limits particulate matter to 0.1 grains/dscf at 12% CO<sub>2</sub>.

Compliance Status: The emissions from the two flares at the 28th Street Landfill comply with the requirements of the rule (see Attachment C for compliance demonstration).

**SMAQMD Rule 420 - Sulfur Content of Fuels**

SIP approved: 12-05-1984 (49 FR 47490):  
*08-13-1981 rule version is SIP approved*

Rule Description: This rule regulates emissions of sulfur compounds from combustion of fuels. This rule limits the sulfur content of gaseous fuels to less than 50 grains per 100 cubic feet and the sulfur content of liquid fuels to less than 0.5 percent by weight.

Compliance Status: The landfill gas from the 28th Street Landfill has a sulfur content (as hydrogen sulfide) of approximately 2 grains per 100 cubic feet and complies with the requirements of the rule.

**K. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS**

**1. Equipment Specific Requirements:**

**b. Landfill and Landfill Gas Collection System**

**40 CFR 60 Subpart WWW (begin at 60.750) - Standards of Performance for Municipal Solid Waste Landfills:**

Promulgated: 03-12-1996 (61 FR 9919)

Rule Description: Subpart WWW limits emissions of NMOC from municipal solid waste landfills with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters and with NMOC emissions greater than 50 megagrams/year where construction, reconstruction or modification was commenced on or after May 30, 1991.

There was a modification at the 28th Street Landfill (as defined in 40 CFR 60.751) on or after May 30, 1991. The volume design capacity of the landfill was increased by the modification of the permit issued by the California Regional Water Quality Control Board, Central Valley Region, dated September 25, 1995. Therefore 40 CFR 60 Subpart WWW and not Subpart Cc (Emission Guidelines) applies to the Landfill and Landfill Gas Collection System.

Subpart WWW requirements for the Landfill and Landfill Gas Collection System include:

1. Collection of landfill gas by the use of wells in the landfill.
2. The wells must collect the landfill gas at a rate that does not allow methane concentration at the surface of the landfill to exceed 500 ppmv above background.
3. The collected landfill gas must be directed to an air pollution control device or landfill gas treatment system.
4. Wells must be monitored monthly for temperature and oxygen concentration.
5. The surface of the landfill must be monitored quarterly for methane, except that closed landfills may monitor yearly under certain circumstances.
6. Recordkeeping for operational parameters.
7. Reporting of monitored data and exceedances of operating parameters.

Compliance Status: The Landfill and Landfill Gas Collection System is currently in compliance with the requirements of 40 CFR 60 Subpart WWW.

**K. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS**

**1. Equipment Specific Requirements:**

**b. Landfill and Landfill Gas Collection System**

**The following SMAQMD rule is not an applicable federal requirement but is discussed here to document the non-applicability determination for the record:**

**SMAQMD Rule 485 - Municipal Landfill Gas**

SIP approved: Rule 485 was approved September 23, 1999 (64 FR 51447), with an effective date of November 22, 1999, as part of the California State Plan for implementing the Emission Guidelines (40 CFR 60 Subpart Cc) applicable to existing municipal solid waste landfills (also known as a Federal Clean Air Act 111(d) plan).

Rule Description: This rule limits emissions of NMOC from municipal solid waste landfills with NMOC emissions greater than 50 megagrams/year. The rule requirements incorporate the requirements of the Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills 40 CFR 60 Subpart Cc.

SMAQMD Rule 485 Section 110 provides an exemption from the requirements of the rule for "any MSW landfill that is subject to the requirements of the New Source Performance Standard Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills (40 CFR 60.750)..."

Compliance Status: The 28th Street Landfill and Landfill Gas Collection System is subject to 40 CFR 60 Subpart WWW and is therefore exempt from SMAQMD Rule 485.

**The following federal regulation is not an applicable federal requirement but is discussed here to document the non-applicability determination for the record:**

**40 CFR 60 Subpart Cc (begin at 60.30c) - Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills:**

Promulgated: 03-12-1996 (61 FR 9919)

Rule Description: Subpart Cc limits emissions of NMOC from existing municipal solid waste landfills with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters and with NMOC emissions greater than 50 megagrams/year where **no** construction, reconstruction or modification was commenced on or after May 30, 1991.

Compliance Status: There has been a modification at the 28th Street Landfill (as defined in 40 CFR 60.751) on or after May 30, 1991. The volume design capacity of the landfill was increased by the modification of the permit issued by the California Regional Water Quality Control Board, Central Valley Region, dated September 25, 1995. Therefore Subpart Cc does not apply to the

**K. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS**

**1. Equipment Specific Requirements:**

**b. Landfill and Landfill Gas Collection System**

Landfill and Landfill Gas Collection System.

**The following federal regulation is not an applicable federal requirement but is discussed here to document the non-applicability determination for the record:**

**40 CFR 64 (begin at 64.1) Compliance Assurance Monitoring:**

Promulgated: 10-22-1997 (52 FR 54940)

Rule Description: The Compliance Assurance Monitoring regulation applies to pollutant-specific emissions units at a major source if the unit satisfies all of the following criteria:

“The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or surrogate thereof), other than an emission limitation or standard that is exempt under paragraph (b)(1) of this section;”  
[40 CFR 64.2(a)(1)]

"The unit uses a control device to achieve compliance with any such emission limitation or standard; and"  
[40 CFR 64.2(a)(2)]

“The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount to be classified as a major source. For purposes of this paragraph, “potential pre-control device emissions’ shall have the same meaning as “potential to emit,” as defined in §64.1, except that emission reductions achieved by the applicable control device shall not be taken into account.”  
[40 CFR 64.2(a)(3)]

Section 64.2(b)(i) states that the requirements of this part shall not apply to any emission limitations or standards proposed after November 15, 1990 pursuant to section 111 or 112 of the Act. Emission limitation or standard means any applicable requirements that constitute an emission limitation, emission standard, standard of performance or means of emission limitation under the Act.

Compliance Status: The landfill is subject to 40 CFR Subpart WWW, which was promulgated in 1996. Therefore, the landfill is exempt from 40 CFR Part 64.

**K. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS**

**1. Equipment Specific Requirements:**

**b. Landfill and Landfill Gas Collection System**

**SMAQMD Permit to Operate No. 12762(Rev01):**

Permit Conditions No. 1 and No. 3 are not federally enforceable. All other conditions of the permit are federally enforceable since they are requirements of SIP approved rules and/or federal NSPS and NESHAP regulations. The Landfill and Landfill Gas Collection System is currently in compliance with all the conditions of SMAQMD Permit to Operate No. 12762(Rev01).

**K. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS**

**1. Equipment Specific Requirements:  
c. Landfill Gas Flare (1990)**

**40 CFR 60 Subpart WWW (begin at 60.750) - Standards of Performance for Municipal Solid Waste Landfills:**

**Promulgated:** 03-12-1996 (61 FR 9919)

**Rule Description:** Subpart WWW limits emissions of NMOC from municipal solid waste landfills with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters and with NMOC emissions greater than 50 megagrams/year where construction, reconstruction or modification was commenced on or after May 30, 1991.

There was a modification at the 28th Street Landfill (as defined in 40 CFR 60.751) on or after May 30, 1991. The volume design capacity of the landfill was increased by the modification of the permit issued by the California Regional Water Quality Control Board, Central Valley Region, dated September 25, 1995. Therefore 40 CFR 60 Subpart WWW and not Subpart Cc (Emission Guidelines) applies to the Landfill and Landfill Gas Collection System.

40 CFR 60 Subpart WWW requirements for the Landfill Gas Flare (1990) include:

1. Landfill gas destruction must be 98% or greater or emissions must be less than 20 ppmvd as hexane at 3% O<sub>2</sub>.
2. A temperature monitoring device at a specific location in the flare exhaust and operation of the flare at a minimum temperature determined by source testing.
3. Recordkeeping for operational parameters.
4. Reporting of monitored data and exceedances of operating parameters.

**Compliance Status:** The Landfill gas Flare (1990) is currently in compliance with the requirements of 40 CFR 60 Subpart WWW.

**40 CFR 63 Subpart AAAA (begin at 63.1930) - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills:**

**Promulgated:** 03-12-1996 (61 FR9919)

**Rule Description:** 40 CFR 63 Subpart AAAA limits emissions of hazardous air pollutants (HAP) from municipal solid waste landfills that are a major source of HAP (i.e. greater than 10 tons/year of a single HAP or greater than 25 tons/year of total HAP).

## **K. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS**

### **1. Equipment Specific Requirements: c. Landfill Gas Flare (1990)**

40 CFR 63 Subpart AAAA requirements for the Landfill Gas Flare (1990) are the same as 40 CFR 60 Subpart WWW requirements but also include:

1. The development of a Startup, Shutdown and Malfunction (SSM) Plan.
2. Taking actions specified in the SSM Plan when applicable.
3. Recordkeeping related to the SSM Plan.
4. Reporting related to the SSM Plan.

Compliance Status: The Landfill Gas Flare (1990) is currently in compliance with the requirements of 40 CFR 63 Subpart AAAA.

**The following SMAQMD rule is not an applicable federal requirement but is discussed here to document the non-applicability determination for the record:**

### **SMAQMD Rule 485 - Municipal Landfill Gas**

SIP approved: Rule 485 was approved September 23, 1999 (64 FR 51447), with an effective date of November 22, 1999, as part of the California State Plan for implementing the Emission Guidelines (40 CFR 60 Subpart Cc) applicable to existing municipal solid waste landfills (also known as a Federal Clean Air Act 111(d) plan).

Rule Description: This rule limits emissions of NMOC from municipal solid waste landfills with NMOC emissions greater than 50 megagrams/year. The rule requirements incorporate the requirements of the Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills 40 CFR 60 Subpart Cc.

SMAQMD Rule 485 Section 110 provides an exemption from the requirements of the rule for "any MSW landfill that is subject to the requirements of the New Source Performance Standard Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills (40 CFR 60.750)...".

Compliance Status: The Landfill Gas Flare (1990) is subject to 40 CFR 60 Subpart WWW and is therefore exempt from SMAQMD Rule 485.

**K. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS**

**1. Equipment Specific Requirements:  
c. Landfill Gas Flare (1990)**

**The following federal regulation is not an applicable federal requirement but is discussed here to document the non-applicability determination for the record:**

**40 CFR 60 Subpart Cc (begin at 60.30c) - Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills:**

Promulgated: 03-12-1996 (61 FR 9919)

Rule Description: Subpart Cc limits emissions of NMOC from existing municipal solid waste landfills with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters and with NMOC emissions greater than 50 megagrams/year where **no** construction, reconstruction or modification was commenced on or after May 30, 1991.

Compliance Status: There has been a modification at the 28th Street Landfill (as defined in 40 CFR 60.751) on or after May 30, 1991. The volume design capacity of the landfill was increased by the modification of the permit issued by the California Regional Water Quality Control Board, Central Valley Region, dated September 25, 1995. Therefore Subpart Cc does not apply to the Landfill Gas Flare (1990).

**The following federal regulation is not an applicable federal requirement but is discussed here to document the non-applicability determination for the record:**

**40 CFR 64 (begin at 64.1) Compliance Assurance Monitoring:**

Promulgated: 10-22-1997 (52 FR 54940)

Rule Description: The Compliance Assurance Monitoring regulation applies to pollutant-specific emissions units at a major source if the unit satisfies all of the following criteria:

“The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or surrogate thereof), other than an emission limitation or standard that is exempt under paragraph (b)(1) of this section;”  
[40 CFR 64.2(a)(1)]

“The unit uses a control device to achieve compliance with any such emission limitation or standard; and”  
[40 CFR 64.2(a)(2)]

“The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount to be classified as a major

**K. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS**

**1. Equipment Specific Requirements:**

**c. Landfill Gas Flare (1990)**

source. For purposes of this paragraph, "potential pre-control device emissions" shall have the same meaning as "potential to emit," as defined in §64.1, except that emission reductions achieved by the applicable control device shall not be taken into account."

[40 CFR 64.2(a)(3)]

Section 64.2(b)(i) states that the requirements of this part shall not apply to any emission limitations or standards proposed after November 15, 1990 pursuant to section 111 or 112 of the Act. Emission limitation or standard means any applicable requirements that constitute an emission limitation, emission standard, standard of performance or means of emission limitation under the Act.

Compliance Status: The flare is subject to 40 CFR Subpart WWW, which was promulgated in 1996. Therefore, the flare is exempt from 40 CFR Part 64.

**SMAQMD Permit to Operate No. 9314(Rev01):**

Permit Conditions No. 1 and No. 3 are not federally enforceable. All other conditions of the permit are federally enforceable since they are requirements of SIP approved rules and/or federal NSPS and NESHAP. The Landfill Gas Flare (1990) is currently in compliance with all the conditions of SMAQMD Permit to Operate No. 9314(Rev01).

**K. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS**

**1. Equipment Specific Requirements:  
d. Landfill Gas Flare (1997)**

**40 CFR 60 Subpart WWW (begin at 60.750) - Standards of Performance for Municipal Solid Waste Landfills:**

**Promulgated:** 03-12-1996 (61 FR 9919)

**Rule Description:** Subpart WWW limits emissions of NMOC from municipal solid waste landfills with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters and with NMOC emissions greater than 50 megagrams/year where construction, reconstruction or modification was commenced on or after May 30, 1991.

There was a modification at the 28th Street Landfill (as defined in 40 CFR 60.751) on or after May 30, 1991. The volume design capacity of the landfill was increased by the modification of the permit issued by the California Regional Water Quality Control Board, Central Valley Region, dated September 25, 1995. Therefore 40 CFR 60 Subpart WWW and not Subpart Cc (Emission Guidelines) applies to the Landfill and Landfill Gas Collection System.

40 CFR 60 Subpart WWW requirements for the Landfill Gas Flare (1990) include:

1. Landfill gas destruction must be 98% or greater or emissions must be less than 20 ppmvd as hexane at 3% O<sub>2</sub>.
2. A temperature monitoring device at a specific location in the flare exhaust and operation of the flare at a minimum temperature determined by source testing.
3. Recordkeeping for operational parameters.
4. Reporting of monitored data and exceedances of operating parameters.

**Compliance Status:** The Landfill gas Flare (1997) is currently in compliance with the requirements of 40 CFR 60 Subpart WWW.

**40 CFR 63 Subpart AAAA (begin at 63.1930) - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills:**

**Promulgated:** 03-12-1996 (61 FR9919)

**Rule Description:** 40 CFR 63 Subpart AAAA limits emissions of hazardous air pollutants (HAP) from municipal solid waste landfills that are a major source of HAP (i.e. greater than 10 tons/year of a single HAP or greater than 25 tons/year of total HAP).

**K. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS**

**1. Equipment Specific Requirements:  
d. Landfill Gas Flare (1997)**

40 CFR 63 Subpart AAAA requirements for the Landfill Gas Flare (1997) are the same as 40 CFR 60 Subpart WWW requirements but also include:

1. The development of a Startup, Shutdown and Malfunction (SSM) Plan.
2. Taking actions specified in the SSM Plan when applicable.
3. Recordkeeping related to the SSM Plan.
4. Reporting related to the SSM Plan.

Compliance Status: The Landfill Gas Flare (1997) is currently in compliance with the requirements of 40 CFR 63 Subpart AAAA.

**The following SMAQMD rule is not an applicable federal requirement but is discussed here to document the non-applicability determination for the record:**

**SMAQMD Rule 485 - Municipal Landfill Gas**

SIP approved: Rule 485 was approved September 23, 1999 (64 FR 51447), with an effective date of November 22, 1999, as part of the California State Plan for implementing the Emission Guidelines (40 CFR 60 Subpart Cc) applicable to existing municipal solid waste landfills (also known as a Federal Clean Air Act 111(d) plan).

Rule Description: This rule limits emissions of NMOC from municipal solid waste landfills with NMOC emissions greater than 50 megagrams/year. The rule requirements incorporate the requirements of the Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills 40 CFR 60 Subpart Cc.

SMAQMD Rule 485 Section 110 provides an exemption from the requirements of the rule for "any MSW landfill that is subject to the requirements of the New Source Performance Standard Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills (40 CFR 60.750)...".

Compliance Status: The Landfill Gas Flare (1997) is subject to 40 CFR 60 Subpart WWW and is therefore exempt from SMAQMD Rule 485.

**K. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS**

**1. Equipment Specific Requirements:  
d. Landfill Gas Flare (1997)**

**The following federal regulation is not an applicable federal requirement but is discussed here to document the non-applicability determination for the record:**

**40 CFR 60 Subpart Cc (begin at 60.30c) - Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills:**

Promulgated: 03-12-1996 (61 FR 9919)

Rule Description: Subpart Cc limits emissions of NMOC from existing municipal solid waste landfills with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters and with NMOC emissions greater than 50 megagrams/year where **no** construction, reconstruction or modification was commenced on or after May 30, 1991.

Compliance Status: There has been a modification at the 28th Street Landfill (as defined in 40 CFR 60.751) on or after May 30, 1991. The volume design capacity of the landfill was increased by the modification of the permit issued by the California Regional Water Quality Control Board, Central Valley Region, dated September 25, 1995. Therefore Subpart Cc does not apply to the Landfill Gas Flare (1997).

**The following federal regulation is not an applicable federal requirement but is discussed here to document the non-applicability determination for the record:**

**40 CFR 64 (begin at 64.1) Compliance Assurance Monitoring:**

Promulgated: 10-22-1997 (52 FR 54940)

Rule Description: The Compliance Assurance Monitoring regulation applies to pollutant-specific emissions units at a major source if the unit satisfies all of the following criteria:

“The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or surrogate thereof), other than an emission limitation or standard that is exempt under paragraph (b)(1) of this section;”  
[40 CFR 64.2(a)(1)]

“The unit uses a control device to achieve compliance with any such emission limitation or standard; and”  
[40 CFR 64.2(a)(2)]

“The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount to be classified as a major

**K. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS**

**1. Equipment Specific Requirements:**

**d. Landfill Gas Flare (1997)**

source. For purposes of this paragraph, "potential pre-control device emissions" shall have the same meaning as "potential to emit," as defined in §64.1, except that emission reductions achieved by the applicable control device shall not be taken into account."

[40 CFR 64.2(a)(3)]

Section 64.2(b)(i) states that the requirements of this part shall not apply to any emission limitations or standards proposed after November 15, 1990 pursuant to section 111 or 112 of the Act. Emission limitation or standard means any applicable requirements that constitute an emission limitation, emission standard, standard of performance or means of emission limitation under the Act.

Compliance Status: The flare is subject to 40 CFR Subpart WWW, which was promulgated in 1996. Therefore, the flare is exempt from 40 CFR Part 64.

**SMAQMD Permit to Operate No. 14749(Rev01):**

Permit Conditions No. 1 and No. 3 are not federally enforceable. All other conditions of the permit are federally enforceable since they are requirements of SIP approved rules and/or federal NSPS and NESHAP. The Landfill gas Flare (1997) is currently in compliance with all the conditions of SMAQMD Permit to Operate No. 14749(Rev01).

**L. PERMIT SHIELD**

**PERMIT SHIELD**

None requested by the applicant.

<b>M. TITLE V PERMIT RENEWAL AND PERMIT CONDITIONS</b>
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**TITLE V PERMIT CONDITIONS:**

It is recommended that the 28th Street Landfill, City of Sacramento Title V Federal Operating Permit be renewed.

See proposed Title V Federal Operating Permit No. TV2011-08-01 for permit conditions.

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

**ATTACHMENT A**

**SMAQMD RULES THAT ARE**

**"APPLICABLE FEDERALLY**

**ENFORCEABLE REQUIREMENTS"**

**FOR THE 28TH STREET LANDFILL**

## SMAQMD RULES THAT ARE "APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS" FOR THE 28TH STREET LANDFILL

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●	●	101	General Provisions and Definitions 09/03/1998 adoption	<b>Yes</b> - no related conditions are included in the permit because of general nature of the rule.
●	●	102	Circumvention 11/29/1983 adoption	<b>Yes</b> - no related conditions are included in the permit because of general nature of the rule.
	●	103	Exceptions 11/29/1983 adoption	<b>No</b> - source does not operate the type of equipment described in this rule.
	●	104	General Conformity 11/03/1994 adoption	<b>No</b> - the rule's purpose is to have the SMAQMD review federal conformity findings.
	●	105	Emission Statement 04/20/1993 adoption	<b>No</b> - actual facility emissions of ROC and NOx are less than 25 tons/year.
		107	Alternative Compliance	<b>No</b> - it is not a SIP approved rule.
●		108	Minor Violations	<b>No</b> - it is not a SIP approved rule.
●	●	201	General Permit Requirements 11/20/1984 adoption	<b>Yes</b> - no related conditions are included in the permit because of the general nature of the rule.

## SMAQMD RULES THAT ARE "APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS" FOR THE 28TH STREET LANDFILL

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●		202	New Source Review	<b>No</b> - SIP approved 11-20-1984 version was withdrawn 08-19-2011. Current version 10-28-2010 is not SIP approved.
	●	203	Prevention of Significant Deterioration 01-27-2011 Adoption	<b>Yes</b> - rule became effective 08-19-2011. Projects processed after the effective date shall be evaluated under this rule.
		204	Emission Reduction Credits	<b>No</b> - it is not a SIP approved rule.
		205	Community Bank and Priority Reserve Bank	<b>No</b> - it is not a SIP approved rule.
		206	Mobile and Transportation Source Emission Reduction Credits	<b>No</b> - it is not a SIP approved rule.
●	*	207	Title V Federal Operating Permit Program	<b>Yes</b> - related conditions are included in the permit. (*Although this is not a SIP approved rule it is applicable because it is part of the approved Title V Permit Program.)
		208	Acid Rain	<b>No</b> - it is not a SIP approved rule.

## SMAQMD RULES THAT ARE "APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS" FOR THE 28TH STREET LANDFILL

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
		209	Limiting Potential to Emit	<b>No</b> - it is not a SIP approved rule.
		210	Synthetic Minor Source Status	<b>No</b> - it is not a SIP approved rule.
		211	MACT at Major Sources of Hazardous Air Pollutants	<b>No</b> - it is not a SIP approved rule.
●		213	Federal Major Modifications	<b>No</b> - it is not a SIP approved rule.
●	●	214	Federal New Source Review	<b>Yes</b> - rule became effective 08-19-2011. Projects processed after the applicable date shall be evaluated under this rule.
		215	Agricultural Permit Requirements and New Agricultural Permit Review	<b>No</b> - it is not a SIP approved rule.
●	*	301	Stationary Source Permit Fees	<b>Yes</b> - related conditions are included in the permit. (*Although this is not a SIP approved rule it is applicable because it is part of the approved Title V Permit Program.)
		302	Hearing Board Fees	<b>No</b> - it is not a SIP approved rule.

**SMAQMD RULES THAT ARE  
 "APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"  
 FOR THE 28TH STREET LANDFILL**

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
		303	Agricultural Burning Permit Fees	<b>No</b> - it is not a SIP approved rule.
		304	Plan Fees	<b>No</b> - it is not a SIP approved rule.
		305	Environmental Document Preparation and Processing Fees	<b>No</b> - it is not a SIP approved rule.
●		306	Air Toxics Fees	<b>No</b> - it is not a SIP approved rule.
	●	307	Clean Air Act Fees 09/26/2002 adoption	<b>No</b> - the source is not classified as major
		310	Permit Fees - Agricultural Source	<b>No</b> - it is not a SIP approved rule
●	●	401	Ringelmann Chart 04/05/1983 adoption	<b>Yes</b> - related conditions are included in the permit.
●		402	Nuisance	<b>No</b> - it is not a SIP approved rule.
●	●	403	Fugitive Dust 11/29/1983 adoption	<b>Yes</b> - related conditions are included in the permit.

**SMAQMD RULES THAT ARE  
 "APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"  
 FOR THE 28TH STREET LANDFILL**

<b>Rule is Applicable</b>	<b>Rule is SIP Approved</b>	<b>Rule No.</b>	<b>Rule Title</b>	<b>Is the Rule an "Applicable Federally Enforceable Requirement"?</b>
●	●	404	Particulate Matter 11/20/1984 adoption	<b>Yes</b> - related conditions are included in the permit.
	●	405	Dust and Condensed Fumes 11/29/1983 adoption	<b>No</b> - the source does not operate such a process.
●	●	406	Specific Contaminants 11/29/1983 adoption	<b>Yes</b> - related conditions are included in the permit.
●	●	407	Open Burning 11/29/1983 adoption	<b>Yes</b> - no related conditions are included in the permit.
	●	408	Incinerator Burning 11/29/1983 adoption	<b>No</b> - the source does not operate an incinerator.
	●	409	Orchard Heaters 11/29/1983 adoption	<b>No</b> - the source does not operate orchard heaters.
	●	410	Reduction of Animal Matter 11/29/1983 adoption	<b>No</b> - the source does not operate equipment for the reduction of animal matter.
	●	411	Boiler NOx 08/23/2007 adoption	<b>No</b> - the source does not operate a boiler subject to this rule.

## SMAQMD RULES THAT ARE "APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS" FOR THE 28TH STREET LANDFILL

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●		412	Stationary IC Engines at Major Stationary Sources of NOx 06/01/1995 adoption	<b>No</b> - the source does not operate an IC engine and is not a major source.
●		413	Stationary Gas Turbines 03/24/2005 version	<b>No</b> - the source does not operate a gas turbine.
●		414	Natural Gas Fired Water Heaters 08/01/1996 adoption 03/25/2010 rule version is not SIP approved	<b>No</b> - the source does not operate natural gas fired water heaters.
		417	Wood Burning Appliances	<b>No</b> - it is not a SIP approved rule.
●	●	420	Sulfur Content of Fuels 11/29/1983 adoption	<b>Yes</b> - related conditions are included in the permit.
●	●	441	Organic Solvents 11/29/1983 adoption	<b>Yes</b> - no related conditions are included in the permit because of limited applicability.
●	●	442	Architectural Coatings 09/05/1996 adoption	<b>Yes</b> - related conditions are included in the permit.

**SMAQMD RULES THAT ARE  
 "APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"  
 FOR THE 28TH STREET LANDFILL**

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●		443	Leaks from Synthetic Organic Chemical and Polymer Manufacturing 09/05/1996 adoption	<b>No</b> - the source does not operate synthetic organic chemical or polymer manufacturing equipment.
●		444	Petroleum Solvent Dry Cleaning 09/05/1996 adoption	<b>No</b> - the source does not operate petroleum solvent dry cleaning equipment.
●		446	Storage of Petroleum Products 11/16/1993 adoption	<b>No</b> - the source does not store petroleum products.
●		447	Organic Liquid Loading 04/02/1998 adoption	<b>No</b> - the source does not operate organic liquid loading equipment.
●		448	Gasoline Transfer into Stationary Storage Containers 02/02/1995 adoption	<b>No</b> - the source does not operate such equipment.
●		449	Transfer of Gasoline into Vehicle Fuel Tanks 09/26/2002 adoption	<b>No</b> - the source does not operate such equipment.
●		450	Graphic Arts Operations 10/23/2008 adoption	<b>No</b> - the source does not operate a graphic arts process as defined in the rule.

## SMAQMD RULES THAT ARE "APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS" FOR THE 28TH STREET LANDFILL

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●	●	451	Surface Coating of Miscellaneous Metal Parts and Products 11/29/1983 adoption 10/28/2010 rule version is not SIP approved	<b>Yes</b> - no related conditions are included in the permit because of limited applicability.
	●	452	Can Coating 09/25/2008 adoption	<b>No</b> - the source does not operate a can coating process.
	●	453	Cutback and Emulsified Asphalt Paving Materials 11/29/1983 adoption	<b>No</b> - the source does not manufacture or apply cutback or emulsified asphalt paving materials.
	●	454	Degreasing Operations 09/25/2008 adoption	<b>No</b> - the source does not operate degreasers subject to this rule.
	●	455	Pharmaceuticals Manufacturing 11/29/1983 adoption	<b>No</b> - the source does not manufacture pharmaceuticals.
	●	456	Aerospace Coating Operations 09/05/1996 adoption	<b>No</b> - the source does not coat aerospace parts.
	●	458	Large Commercial Bread Bakeries 09/05/1996 adoption	<b>No</b> - the source does not produce bread products.

## SMAQMD RULES THAT ARE "APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS" FOR THE 28TH STREET LANDFILL

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●		459	Automotive, Truck and Heavy Equipment Refinishing Operations 10/02/1997 adoption	<b>No</b> - the source does not refinish vehicles.
●		460	Adhesives and Sealants	<b>No</b> - it is not a SIP approved rule.
●		463	Wood Products Coatings 09/25/2008 adoption	<b>No</b> - it is not a SIP approved rule.
●		464	Organic Chemical Manufacturing Operations 07/23/1998 adoption	<b>No</b> - the source does not manufacture organic chemicals.
●		465	Polyester Resin Operations 09/25/08 adoption	<b>No</b> - it is not a SIP approved rule.
●		466	Solvent Cleaning 10/28/2010 adoption	<b>Yes</b> - related conditions are included in the permit.
		485	Municipal Landfill Gas	<b>No</b> - it is not a SIP approved rule.
		496	Large Confined Animal Facilities	<b>No</b> - it is not a SIP approved rule.
●		501	Agricultural Burning 11/29/1983 adoption	<b>No</b> - the source does not conduct agricultural burning.

## SMAQMD RULES THAT ARE "APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS" FOR THE 28TH STREET LANDFILL

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●		601	Procedure before the Hearing Board	<b>No</b> - it is not a SIP approved rule.
●		602	Breakdown Conditions: Emergency Variance	<b>No</b> - it is not a SIP approved rule.
	●	701	Emergency Episode Plan 05/27/1999 adoption	<b>Yes</b> - at this time the source emissions are below the rule's applicability level.
		801	New Source Performance Standards	<b>No</b> - it is not a SIP approved rule. Note: there are equivalent federal regulations.
		901	General Requirements	<b>No</b> - it is not a SIP approved rule. Note: there are equivalent federal regulations.
		902	Asbestos	<b>No</b> - it is not a SIP approved rule. Note: there is an equivalent federal regulation.
		903	Mercury	<b>No</b> - it is not a SIP approved rule. Note: there is an equivalent federal regulation.
		904	Airborne Toxic Control Measures	<b>No</b> - it is not a SIP approved rule. Note: there are equivalent federal regulations for some of the listed ATCMs.

**SMAQMD RULES THAT ARE  
"APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"  
FOR THE 28TH STREET LANDFILL**

<b>Rule is Applicable</b>	<b>Rule is SIP Approved</b>	<b>Rule No.</b>	<b>Rule Title</b>	<b>Is the Rule an "Applicable Federally Enforceable Requirement"?</b>
		1002	Fleet Inventory	<b>No</b> - it is not a SIP approved rule.
		1003	Reduced-Emission Fleet Vehicles/Alternative Fuels	<b>No</b> - it is not a SIP approved rule.
		1005	Mobile Source Emission Reduction Credits/Banking	<b>No</b> - it is not a SIP approved rule.
		1006	Transportation Conformity	<b>No</b> - it is not a SIP approved rule.

# **ATTACHMENT B**

## **SMAQMD RULE 201 PERMITS TO OPERATE**

# **ATTACHMENT C**

## **SMAQMD RULE 406 COMPLIANCE CALCULATIONS FOR FLARES**

### Calculation of SO<sub>2</sub> and PM Emission Concentrations from Flares

Compliance with the SO<sub>2</sub> and PM emission concentrations for both flares will be shown by demonstrating compliance with the 1990 flare.

Assumptions for calculations:

Landfill Gas (LFG) F-factor = 7,963 dscf EG (exhaust gas)/MMBTU (2010 source test data)  
LFG Heat Content = 409.7 BTU/scf LFG (2010 source test data)  
Outlet Oxygen = 13.86% (source test data)  
Outlet Carbon Dioxide = 6.2% (source test data)  
SO<sub>2</sub> Emission Factor = 3.43 lb SO<sub>2</sub>/MMscf LFG  
PM Emission Factor = 32 lb PM<sub>10</sub>/MMscf LFG

Molecular Weight of SO<sub>2</sub> = 64 grams/mole  
Standard Molar Volume = 0.8493 dscf/mol (at 68 degrees F and 1 atm)

**PM<sub>10</sub> concentration** (combustion contaminants):

=  $\frac{\text{Flare PM}_{10} \text{ mass emission rate (grains/min)}}{\text{Flare volumetric Exhaust Gas flow rate (dscf EG/min)}}$   
=  $\frac{(32 \text{ lb PM}_{10}/\text{MMscf LFG}) (7000 \text{ grains/lb}) (1500 \text{ scf LFG/min})}{(1500 \text{ scf LFG/min}) (409.7 \text{ BTU/scf LFG}) (7963 \text{ dscf EG/MMBTU})}$   
=  $\frac{336 \text{ grains PM}_{10}/\text{min}}{4894 \text{ dscf EG/min}}$  **at 0% O<sub>2</sub> based on definition of Fd Factor**  
=  $\frac{336 \text{ grains PM}_{10}/\text{min}}{14529 \text{ dscf EG/min}}$  **at 13.86% O<sub>2</sub> actual test condition**  
= 0.023 grains PM<sub>10</sub>/dscf EG **at 6.2% CO<sub>2</sub> actual test condition**  
= 0.045 grains PM<sub>10</sub>/dscf EG **at 12% CO<sub>2</sub>**

**SO<sub>2</sub> Concentration (%SO<sub>2</sub> by volume):**

=  $\frac{\text{Flare volumetric SO}_2 \text{ emission rate (scf SO}_2/\text{min)}}{\text{Flare volumetric combustion gas emission rate (dscf EG/min)}}$   
=  $\frac{(3.43 \text{ lb SO}_2/\text{MMscf LFG}) (453.6 \text{ grams/lb}) (1500 \text{ scf LFG/min}) (0.8493 \text{ ft}^3/\text{g-mole})(1 \text{ g-mole}/64 \text{ grams})}{(1500 \text{ scf LFG/min}) (409.7 \text{ BTU/scf LFG}) (7963 \text{ dscf EG/MMBTU})}$   
=  $\frac{0.031 \text{ scf SO}_2/\text{min}}{4894 \text{ dscf EG/min}}$  **at 0% O<sub>2</sub> based on definition of Fd Factor**  
=  $\frac{0.031 \text{ scf SO}_2/\text{min}}{13284 \text{ dscf EG/min}}$  **at 13.2% O<sub>2</sub> actual test condition**  
= 0.0002% SO<sub>2</sub> by volume