#### **Bay Area Air Quality Management District**

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

#### **STATEMENT OF BASIS**

#### for

#### MAJOR FACILITY REVIEW PERMIT: MINOR REVISION

for West Contra Costa Sanitary Landfill, Inc. Facility #A1840

> **Facility Address:** Foot of Parr Boulevard Richmond, CA 94801

Mailing Address: 3260 Blume Drive, Suite 200 Richmond, CA 94806

Permit Engineer: Carol Allen

Site A1840, West Contra Costa Sanitary Landfill, Inc. Foot of Parr Boulevard, Richmond, CA 94901

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

#### **TABLE OF CONTENTS**

	A. Backg	ground	1
	B. Facili	ty Description	2
	C. Perm	it Content	
	I.	Standard Conditions	3
	II.	Equipment	4
	III.	Generally Applicable Requirements	5
	IV.	Source-Specific Applicable Requirements	7
	V.	Schedule of Compliance	
	VI.	Permit Conditions	16
	VII.	Applicable Limits and Compliance Monitoring Requirements	21
	VIII.	Test Methods	
	IX.	Permit Shield	
	Х.	Revision History	
	XI.	Glossary	
	XII.	Applicable State Implementation Plan	35
D.	Alternate	e Operating Scenarios:	35
E.	Complia	nce Status:	35
F.	Differenc	es between the Application and the Proposed Permit:	35

#### Title V Statement of Basis for MFR Permit: Minor Revision

West Contra Costa Sanitary Landfill, Inc.; PLANT # 1840 APPLICATIONS # 2789 and # 8514

#### A. Background

As discussed in the most recent Statement of Basis for the Major Facility Review (MFR) Permit for the West Contra Costa Sanitary Landfill (Site # A1840), this facility is subject to the Operating Permit requirements of Title V of the federal Clean Air Act, Part 70 of Volume 40 of the Code of Federal Regulations (CFR), and BAAQMD Regulation 2, Rule 6, Major Facility Review because it is a major facility as defined by BAAQMD Regulation 2-6-212. This facility received its initial Title V permit on May 29, 2002 with an expiration date of April 30, 2007. In July 2004, the District reopened the permit to add the NESHAP for Municipal Solid Waste Landfills (40 CFR 63, Subpart AAAA) and to make other administrative amendments and minor revisions. The revised permit was issued on September 29, 2004.

The main purpose of this current action is to make minor MFR permit revisions pursuant to Permit Applications # 2789 and # 8514. Applications # 2789 and # 8514 concern the loss of exemption permitting of the S-46 Hazardous Waste Management Facility (HWMF), which is a closed hazardous waste disposal unit that is located on contiguous property with the main active landfill (S-15) at this facility. Application # 2789 includes the issuance of a Permit to Operate for S-46 and the issuance of an Authority to Construct for the landfill gas collection system at S-46. Application # 8514 includes the issuance of an Authority to Construct for the A-11 Landfill Gas Flare that will control the landfill gas collected from S-46.

Applications # 2789 and # 8514 do not involve (a) Part 51 or Part 52 major modifications, (b) NSPS, NESHAPS, or Section 112 modifications, (c) monitoring relaxations, (d) establishment of permit terms to avoid a requirement, (e) establishment of or change to case-by-case emission limits or standards, (f) changes to ambient impact, visibility analysis, or increment analysis determinations, or (g) incorporation of any newly promulgated federal requirements. Therefore, these revisions are not significant and do not require a public notice.

In addition to the minor revisions discussed above, the District is proposing to make several administrative amendments to this MFR permit that are necessary to correct typographical errors, update regulatory amendment dates, clarify requirements, and include several state and BAAQMD regulations. Including the new state and BAAQMD rules qualifies as an administrative amendment, because these rules are not federally enforceable. On November 8, 2004, CARB adopted an ATCM for stationary internal combustion engines. Since this ATCM and CARB's Portable Equipment requirements may apply to equipment at located at this facility, these regulations will be added to appropriate sections of this MFR Permit. On June 15, 2005, BAAQMD adopted Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants, which replaced the BAAQMD's Toxic Risk Management Policy as of July 1, 2005. The June

Site A1840, West Contra Costa Sanitary Landfill, Inc. Foot of Parr Boulevard, Richmond, CA 94901

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

15, 2005 board action also amended numerous regulations by deleting references to the BAAQMD's Risk Management Policy and adding references to Regulation 2, Rule 5. Since Regulation 2, Rule 5 applies to all new and modified sources, it will be included in this MFR Permit, wherever applicable. And finally, the amendment dates for Regulation 2, Rules 1 and 2 and Regulation 8, Rules 34, 40, and 47 will be corrected throughput this permit as a result of the June 15, 2005 amendments.

This document will discuss the minor revisions proposed pursuant to Applications # 2789 and # 8514. The engineering evaluations for these two applications are enclosed in Appendix A and contain detailed discussions of the proposed permit revisions. The proposed administrative amendments are discussed in detail below. The proposed permit shows all changes to the existing permit in strikeout/underline format. The permit will be formally re-issued after EPA's 45-day review period is complete.

#### **B.** Facility Description

The West Contra Costa Sanitary Landfill, Inc. (WCCSL) site includes both an active landfill (S-15) and an inactive Hazardous Waste Management Facility (HWMF) that is located on contiguous property with the active landfill. Existing equipment includes a landfill gas collection system for the active landfill, an enclosed ground flare (A-8) and three internal combustion engines (S-5, S-6, and S-37) that are burning collected landfill gas from the active landfill, and leachate treatment equipment (S-22, S-23, S-24, S-25, S-26, S-27, S-28, S-29, S-30, S-38, S-39, S-40, A-1, A-2, A-3, A-4, A-5, and A-6).

The District is proposing to add the S-46 inactive HWMF, the gas collection system for S-46, and an enclosed Landfill Gas Flare (A-11) that will control the landfill gas that will be collected from S-46.

#### C. Permit Content

Since Statements of Basis were prepared for the initial MFR Permit and the July 2004 reopening of this MFR Permit that fully describe and explain the legal and factual basis for the MFR Permit, this report will only address the proposed revisions to the MFR Permit associated with Applications # 2789 and # 8514 and the proposed administrative amendments that are necessary to correct errors and update citations. Changes to the permit sections are described in the order that they are presented in the permit.

On the Title Page, the District contact is being changed from Carol Allen to Jane Lundquist due to recent BAAQMD staff reassignments.

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

#### I. Standard Conditions

This section contains administrative requirements and conditions that apply to all facilities. The District is proposing to make the following corrections to the standard conditions in Section I:

- Update regulatory amendment dates in Section I.A.
- Clarify these standard conditions by adding Section I.B.12 and revising Section I.G.
- Correct the bases for Sections I.B.11, I.E.2, and I.F.

The specific proposed revisions are identified below.

#### A. Administrative Requirements

The permit holder shall comply with all applicable requirements in the following regulations: **BAAQMD** Regulation 1 - General Provisions and Definitions (as amended by the District Board on 5/2/01); SIP Regulation 1 - General Provisions and Definitions (as approved by EPA through 6/28/99); BAAQMD Regulation 2, Rule 1 - Permits, General Requirements (as amended by the District Board on  $\frac{8}{1/016}/15/05$ ); SIP Regulation 2, Rule 1 - Permits, General Requirements (as approved by EPA through 1/26/99); BAAQMD Regulation 2, Rule 2 - Permits, New Source Review (as amended by the District Board on  $\frac{5/17/006}{15/05}$ ; SIP Regulation 2, Rule 2 - Permits, New Source Review and Prevention of Significant Deterioration (as approved by EPA through 1/26/99); BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking (as amended by the District Board on  $\frac{5/17/00}{12/21/04}$ ; SIP Regulation 2, Rule 4 - Permits, Emissions Banking (as approved by EPA through 1/26/99); and BAAQMD Regulation 2, Rule 6 - Permits, Major Facility Review

(as amended by the District Board on 4/16/03).

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

- •••
- 11. The responsible official shall certify all documents submitted by the facility pursuant to the major facility review permit. The certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. The certifications shall be signed by a responsible official for the facility. (Regulation <u>2-6-409.20</u>, MOP Volume II, Part 3, §4.11)
- 12. The permit holder is responsible for compliance, and certification of compliance, with all conditions of the permit, regardless whether it acts through employees, agents, contractors, or subcontractors. (Regulation 2-6-307)

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

#### E. Records

- ...
- 2. Notwithstanding the specific wording in any requirement, all records for federally enforceable requirements shall be maintained for at least five years from the date of creation of the record. (Regulation 2-6-501, Regulation 3; MOP Volume II, Part 3, §4.7)

#### F. Monitoring Reports

•••

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

#### **G.** Compliance Certification

Compliance certifications shall be submitted annually by the responsible official of this facility to the Bay Area Air Quality Management District and to the Environmental Protection Agency. The certification period will be May 1st to through April 30th. The certification shall ...

#### II. Equipment

This section of the permit lists all permitted or significant sources and all abatement or control devices for these sources. This minor revision action will add the S-46 HWMF and the associated landfill gas collection and control systems (A-11) to this permit. The District is also proposing to correct Table II-B for the existing A-8 Landfill Gas Flare by adding the 3 hour averaging period to the minimum combustion zone temperature limit. The proposed revisions to Tables II-A and II-B are shown below.

#### **Table II A - Permitted Sources**

Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. The capacities in this table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-301.

S-#	Description	Make or Type	Model	Capacity
•••				
<u>S-46</u>	Hazardous Waste Management	inactive hazardous		210,700 tons of
	Facility (HWMF) equipped	waste disposal unit		decomposable waste
	with landfill gas collection	horizontal collectors		19 collectors (under
	system			construction)

		Source(s)	Applicable	Operating	Limit or
<b>A-</b> #	Description	Controlled	Requirement	Parameters	Efficiency
•••					
A-8	Landfill Gas Flare,	S-15	BAAQMD	Minimum	Either
	burning landfill gas,		8-34-301.3,	combustion zone	98% destruction
	45 MM BTU/hour		see also	temperature of	of NMOC or
			Table IV-B	1400 °F	< 30 ppmv of
				(3 hour average),	NMOC, as CH <sub>4</sub> ,
				see also	at 3% O <sub>2</sub> , dry,
				Table VII-B	see also Table
					VII-B
<u>A-11</u>	Landfill Gas Flare for	<u>S-46</u>	BAAQMD	<u>Minimum</u>	Either
	HWMF, Perennial Energy,		<u>8-34-301.3,</u>	combustion zone	98% destruction
	Inc., Model # F-58-16-E,		see also	temperature of	of NMOC or
	burning landfill gas, 5.25		Table IV-G	<u>1400 °F</u>	< 30 ppmv of
	MM BTU/hour (under			(3 hour average),	<u>NMOC, as CH<sub>4</sub>.</u>
	construction)			see also	<u>at 3% O<sub>2</sub>, dry,</u>
				Table VII-G	see also
					Table VII-G

Table II B – Abatement Devices	5
--------------------------------	---

#### III. Generally Applicable Requirements

This section of the permit lists requirements that generally apply to all sources at a facility including insignificant sources, portable equipment, and temporary sources that may not require a District permit.

#### Text Revisions

In the introductory language for this section, the District is proposing to include EPA's website address for SIP amendments and to correct typographical errors. The proposed revisions are listed below.

•••

The dates in parenthesies in the Title column identify the versions of the regulations being cited and are, as applicable:

- 1. BAAQMD regulation(s): The date(s) of adoption or most recent amendment of the regulation by the District Board of Directors
- 2. Any federal requirement, including a version of a District regulation that has been approved into the SIP: The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

The full language of SIP requirements is on EPA Region 9's website. The address is: included at the end of this permit.

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

•••

#### Table III Revisions

In Table III, the District is proposing to update several regulatory amendment dates, correct several typographical errors, and to add three non-federally enforceable regulations: BAAQMD Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants, CARB ATCM for stationary compression ignition engines, and California H&S Code requirements for portable equipment. The proposed revisions to Table III are shown below.

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 2, Rule 1	General Requirements (8/1/016/15/05)	Ν
BAAQMD 2-1-429	Federal Emissions Statement (6/7/95)	Y
SIP Regulation 2, Rule 1	General Requirements (1/26/99)	$\mathbf{Y}^1$
BAAQMD Regulation 2, Rule 5	New Source Review of Toxic Air Contaminants (6/15/05)	<u>N</u>
•••		
BAAQMD Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (11/21/01)	<u>NY</u>
BAAQMD Regulation 8, Rule 4	Organic eCompounds - General Solvent and Surface	Y
	Coating Operations (10/16/02)	
•••		
BAAQMD Regulation 8, Rule 40	Organic Compounds – Aeration of Contaminated Soil	Y
	and Removal of Underground Storage Tanks	
	( <del>12/15/99<u>6</u>/15/05</del> )	
BAAQMD 8-40-116	Exemption, Small Volume	Y
BAAQMD 8-40-117	Exemption, Accidental Spills	Y
BAAQMD Regulation 8, Rule 47	Organic Compounds – Air Stripping and Soil Vapor	Y
	Extraction Operations ( <u>6/15/946/15/05</u> )	
BAAQMD Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products	Ν
	(7/17/02)	
BAAQMD-SIP Regulation 8, Rule	Organic Compounds - Adhesive and Sealant Products	Y <sup>1</sup>
51	(2/26/02)	

### Table IIIGenerally Applicable Requirements

Applicable	Regulation Title or	Federally Enforceable
Requirement	Description of Requirement	(Y/N)
California Code of Regulations	Airborne Toxic Control Measure for Stationary	<u>N</u>
Title 17, Section 93115	Compression Ignition Engines (11/8/04)	
California Health and Safety Code	Portable Equipment	<u>N</u>
Section 41750 et seq.		
•••		

## Table IIIGenerally Applicable Requirements

#### IV. Source-Specific Applicable Requirements

This section of the permit lists all the applicable requirements that apply to permitted or significant sources. The text of the requirements is found in the regulations, which are readily available on the District's or EPA's websites, or in the permit conditions, which are found in Section VI of the permit. All monitoring requirements are cited in Section IV. Section VII is a cross-reference between the limits and monitoring requirements. A discussion of monitoring is included in Section C.VII of this statement of basis.

#### Administrative Amendments:

In the introductory language for this section, the District is proposing to include EPA's website address for SIP amendments and to correct typographical errors. Tables IV-A, IV-B, IV-E, and IV-F list regulations that were amended on June 15, 2005. As discussed previously, the June 15 amendments added a reference to the District new Regulation 2, Rule 5 and deleted references to the obsolete Risk Management Policy. These amendments did not impact any limit or standard and were strictly non-substantive in nature. For the MFR Permit at this site, the District is proposing to update the regulatory amendment dates for Regulation 2, Rules 1 and 2 and Regulation 8, Rules 34, 40, and 47. The proposed revisions are listed below.

•••

The dates in parenthesies in the Title column identify the versions of the regulations being cited and are, as applicable:

- 1. BAAQMD regulation(s): The date(s) of adoption or most recent amendment of the regulation by the District Board of Directors
- 2. Any federal requirement, including a version of a District regulation that has been approved into the SIP: The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date

The full text of each permit condition cited is included in Section VI, Permit Conditions,

Site A1840, West Contra Costa Sanitary Landfill, Inc. Foot of Parr Boulevard, Richmond, CA 94901

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

of this permit. The full language of SIP requirements is on EPA Region 9's website. The address is: included at the end of this permit.

<u>http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions</u>. All other text may be found in the regulations themselves.

•••

# Table IV – ASource-Specific Applicable RequirementsS-5 INTERNAL COMBUSTION LEAN BURN ENGINE; ANDS-6 INTERNAL COMBUSTION LEAN BURN ENGINE

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
•••			
BAAQMD			
Regulation 8,	Organic Compounds - Solid Waste Disposal Sites (10/6/996/15/05)		
Rule 34			

# Table IV – BSource-Specific Applicable RequirementsS-15 WEST CONTRA COSTA SANITARY LANDFILL; ANDA-8 LANDFILL GAS FLARE

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
•••			
BAAQMD			
Regulation 8,	Organic Compounds - Solid Waste Disposal Sites (10/6/996/15/05)		
Rule 34			
•••			

Site A1840, West Contra Costa Sanitary Landfill, Inc. Foot of Parr Boulevard, Richmond, CA 94901

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

# Table IV – ESource-Specific Applicable RequirementsS-30 Air Stripper;A-3 CARBON ADSORBER; A-4 CARBON ADSORBER;A-5 CARBON ADSORBER; AND A-6 CARBON ADSORBER

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
BAAQMD	Air Stripping and Soil Vapor Extraction Operations ( <del>6/15/946/15/05</del> )		
Regulation 8,			
Rule 47			
•••			

# Table IV – FSource-Specific Applicable RequirementsS-37 INTERNAL COMBUSTION LEAN BURN ENGINE

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
•••			
BAAQMD			
<b>Regulation 8,</b>	Organic Compounds - Solid Waste Disposal Sites (10/6/996/15/05)		
Rule 34			
•••			

Complex Applicability Determinations:

The engineering evaluation for Application # 8514 contains a detailed applicability discussion for the S-46 HWMF. In summary, the facility added municipal solid waste (MSW) to the HWMF in 2000 and 2001 in order to bring the area up to final closure grade. The addition of this MSW required that a landfill gas collection and control system be install at S-46 pursuant to BAAQMD Regulation 8, Rule 34 and the Emission Guidelines for MSW Landfills (40 CFR Part 60, Subpart Cc). The installation of a landfill gas collection system at S-46 also triggered a permit requirement for S-46 pursuant to BAAQMD Regulation 2, Rule 1. All applicable requirements for the S-46 HWMF with Landfill Gas Collection System and the A-11 Landfill Gas Flare for HWMF are listed in the new Table IV-G shown below.

#### <u>Table IV – G</u>

		<b>Federally</b>	<u>Future</u>
<b>Applicable</b>	Regulation Title or	<b>Enforceable</b>	<b>Effective</b>
<b><u>Requirement</u></b>	Description of Requirement	<u>(Y/N)</u>	<u>Date</u>
BAAQMD Regulation 1	General Provisions and Definitions (5/2/01)		<u>upon</u> <u>start-up of</u> <u>A-11</u>
<u>1-523</u>	Parametric Monitoring and Recordkeeping Procedures	<u>N</u>	
<u>1-523.1</u>	<u>Reporting requirement for periods of inoperation &gt; 24 hours</u>	<u>Y</u>	
<u>1-523.2</u>	Limit on duration of inoperation	<u>Y</u>	
<u>1-523.3</u>	Reporting requirement for violations of any applicable limits	<u>N</u>	
<u>1-523.4</u>	Records of inoperation, tests, calibrations, adjustments, & maintenance	<u>Y</u>	
<u>1-523.5</u>	Maintenance and calibration	N	
<u>SIP</u> <u>Regulation 1</u>	General Provisions and Definitions (6/28/99)		<u>upon</u> <u>start-up of</u> <u>A-11</u>
<u>1-523</u>	Parametric Monitoring and Recordkeeping Procedures	$\underline{\mathbf{Y}}^1$	
<u>1-523.3</u>	Reports of Violations	$\underline{\mathbf{Y}}^1$	
BAAQMD Regulation 6	Particulate Matter and Visible Emissions (12/19/90)		<u>upon</u> <u>start-up of</u> <u>A-11</u>
<u>6-301</u>	Ringelmann No. 1 Limitation (applies to A-11 Flare only)	<u>Y</u>	
<u>6-305</u>	Visible Particles (applies to A-11 Flare only)	<u>Y</u>	
<u>6-310</u>	Particle Weight Limitation (applies to A-11 Flare only)	<u>Y</u>	
<u>6-401</u>	Appearance of Emissions (applies to A-11 Flare only)	<u>Y</u>	
<u>BAAQMD</u> <u>Regulation 8,</u> <u>Rule 34</u>	<u>Organic Compounds – Solid Waste Disposal Sites (6/15/05)</u>		
<u>8-34-113</u>	Limited Exemption, Inspection and Maintenance	<u>Y</u>	<u>upon start-</u> up of A-11
8-34-113.1	Emission Minimization Requirement	<u>Y</u>	
8-34-113.2	Shutdown Time Limitation	<u>Y</u>	
<u>8-34-113.3</u>	Recordkeeping Requirement	<u>Y</u>	
<u>8-34-117</u>	Limited Exemption, Gas Collection System Components	<u>Y</u>	<u>upon start-</u> up of A-11
8-34-117.1	Necessity of Existing Component Repairs/Adjustments	<u>Y</u>	
<u>8-34-117.2</u>	New Components are Described in Collection and Control System Design Plan	<u>Y</u>	
<u>8-34-117.3</u>	Meets Section 8-34-118 Requirements	<u>Y</u>	
<u>8-34-117.4</u>	Limits on Number of Wells Shutdown	<u>Y</u>	

#### <u>Table IV – G</u>

		<b>Federally</b>	<u>Future</u>
<u>Applicable</u>	Regulation Title or	<b>Enforceable</b>	<b>Effective</b>
<b><u>Requirement</u></b>	Description of Requirement	<u>(Y/N)</u>	<u>Date</u>
<u>8-34-117.5</u>	Shutdown Duration Limit	<u>Y</u>	
<u>8-34-117.6</u>	Well Disconnection Records	<u>Y</u>	
<u>8-34-118</u>	Limited Exemption, Construction Activities	<u>Y</u>	upon start-
			<u>up of A-11</u>
<u>8-34-118.1</u>	Construction Plan	<u>Y</u>	
<u>8-34-118.2</u>	Activity is Required to Maintain Compliance with this Rule	<u>Y</u>	
<u>8-34-118.3</u>	Required or Approved by Other Enforcement Agencies	<u>Y</u>	
<u>8-34-118.4</u>	Emission Minimization Requirement	<u>Y</u>	
<u>8-34-118.5</u>	Excavated Refuse Requirements	<u>Y</u>	
<u>8-34-118.6</u>	Covering Requirements for Exposed Refuse	<u>Y</u>	
<u>8-34-118.7</u>	Installation Time Limit	<u>Y</u>	
<u>8-34-118.8</u>	Capping Required for New Components	<u>Y</u>	
<u>8-34-118.9</u>	Construction Activity Records	<u>Y</u>	
<u>8-34-301</u>	Landfill Gas Collection and Emission Control System Requirements	<u>Y</u>	
<u>8-34-301.1</u>	Continuous Operation	<u>Y</u>	upon start-
			<u>up of A-11</u>
<u>8-34-301.2</u>	Collection and Control Systems Leak Limitations	<u>Y</u>	Upon In-
			stallation
			of
			Collection
			Systems
			and A-11
8-34-301.3	Limits for Enclosed Flares	<u>Y</u>	upon start-
			<u>up of A-11</u>
<u>8-34-303</u>	Landfill Surface Requirements	<u>Y</u>	
<u>8-34-304</u>	Gas Collection System Installation Requirements	<u>Y</u>	
8-34-304.1	Based on Waste Age For Inactive or Closed Areas	<u>Y</u>	
8-34-304.2	Based on Waste Age For Active Areas	<u>Y</u>	
8-34-304.3	Based on Amount of Decomposable Waste Accepted	<u>Y</u>	
8-34-304.4	Based on NMOC Emission Rate	<u>Y</u>	
<u>8-34-305</u>	Wellhead Requirements	<u>Y</u>	upon start-
			<u>up of A-11</u>
8-34-305.1	Operate Under Vacuum	<u>Y</u>	
<u>8-34-305.2</u>	<u>Temperature &lt; 55 °C</u>	<u>Y</u>	
8-34-305.3	Nitrogen < 20% or	<u>Y</u>	

#### <u>Table IV – G</u>

		<b>Federally</b>	<u>Future</u>
<b>Applicable</b>	Regulation Title or	<b>Enforceable</b>	<b>Effective</b>
<b><u>Requirement</u></b>	Description of Requirement	<u>(Y/N)</u>	<u>Date</u>
<u>8-34-305.4</u>	Oxygen < 5%	<u>Y</u>	
<u>8-34-405</u>	Design Capacity Reports	<u>Y</u>	
<u>8-34-408</u>	Collection and Control System Design Plans	<u>Y</u>	
<u>8-34-408.2</u>	Sites With Existing Collection and Control Systems	<u>Y</u>	
<u>8-34-411</u>	Annual Report	<u>Y</u>	
<u>8-34-412</u>	Compliance Demonstration Tests	<u>Y</u>	<u>upon start-</u> up of A-11
<u>8-34-413</u>	Performance Test Report	<u>Y</u>	upon start- up of A-11
<u>8-34-414</u>	Repair Schedule for Wellhead Excesses	<u>Y</u>	upon start- up of A-11
<u>8-34-414.1</u>	Records of Excesses	<u>Y</u>	
<u>8-34-414.2</u>	Corrective Action	<u>Y</u>	
8-34-414.3	Collection System Expansion	<u>Y</u>	
8-34-414.4	Operational Due Date for Expansion	<u>Y</u>	
8-34-415	Repair Schedule for Surface Leak Excesses	<u>Y</u>	
8-34-415.1	Records of Excesses	<u>Y</u>	
8-34-415.2	Corrective Action	<u>Y</u>	
8-34-415.3	Re-monitor Excess Location Within 10 Days	<u>Y</u>	
8-34-415.4	Re-monitor Excess Location Within 1 Month	<u>Y</u>	
8-34-415.5	If No More Excesses, No Further Re-Monitoring	<u>Y</u>	
8-34-415.6	Additional Corrective Action	<u>Y</u>	
8-34-415.7	Re-monitor Second Excess Within 10 days	<u>Y</u>	
8-34-415.8	Re-monitor Second Excess Within 1 Month	<u>Y</u>	
8-34-415.9	If No More Excesses, No Further Re-monitoring	<u>Y</u>	
8-34-415.10	Collection System Expansion for Third Excess in a Quarter	<u>Y</u>	
8-34-415.11	Operational Due Date for Expansion	<u>Y</u>	
8-34-416	Cover Repairs	<u>Y</u>	
8-34-501	Operating Records	<u>Y</u>	
<u>8-34-501.1</u>	Collection System Downtime	<u>Y</u>	upon start- up of A-11
<u>8-34-501.2</u>	Emission Control System Downtime	<u>Y</u>	upon start- up of A-11
<u>8-34-501.3</u>	Continuous Temperature Records (applies to A-11 Flare)	<u>Y</u>	upon start- up of A-11
8-34-501.4	Testing	<u>Y</u>	

#### <u>Table IV – G</u>

		<b>Federally</b>	<u>Future</u>
Applicable	Regulation Title or	<b>Enforceable</b>	<b>Effective</b>
<b><u>Requirement</u></b>	Description of Requirement	<u>(Y/N)</u>	Date
<u>8-34-501.6</u>	Leak Discovery and Repair Records	<u>Y</u>	
<u>8-34-501.7</u>	Waste Acceptance Records	<u>Y</u>	
<u>8-34-501.8</u>	Non-decomposable Waste Records	<u>Y</u>	
<u>8-34-501.9</u>	Wellhead Excesses and Repair Records	<u>Y</u>	<u>upon start-</u> up of A-11
8-34-501.10	Gas Flow Rate Records for All Emission Control Systems	<u>Y</u>	upon start- up of A-11
8-34-501.12	Records Retention for 5 Years	Y	
8-34-503	Landfill Gas Collection and Emission Control System Leak Testing	<u>Y</u>	
8-34-504	Portable Hydrocarbon Detector	<u>Y</u>	
<u>8-34-505</u>	Well Head Monitoring	<u>Y</u>	upon start- up of A-11
8-34-506	Landfill Surface Monitoring	<u>Y</u>	
<u>8-34-507</u>	Continuous Temperature Monitor and Recorder (applies to A-11 Flare)	<u>Y</u>	upon start- up of A-11
<u>8-34-508</u>	Gas Flow Meter	<u>Y</u>	upon start- up of A-11
8-34-510	Cover Integrity Monitoring	<u>Y</u>	
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)		
9-1-301	Limitations on Ground Level Concentrations	<u>Y</u>	
<u>9-1-302</u>	General Emission Limitations (applies to A-11 Flare only)	<u>Y</u>	<u>upon start-</u> up of A-11
BAAQMD Regulation 9, Rule 2	Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/99)		
<u>9-2-301</u>	Limitations on Hydrogen Sulfide	<u>N</u>	
<u>40 CFR</u>	Standards of Performance for New Stationary Sources – General		
<u>Part 60,</u> <u>Subpart A</u>	<u>Provisions (8/27/01)</u>		
<u>60.4(b)</u>	Requires Submission of Requests, Reports, Applications, and Other Correspondence to the Administrator	<u>Y</u>	
<u>60.7</u>	Notification and Record Keeping	<u>Y</u>	
<u>60.8</u>	Performance Tests	<u>Y</u>	upon start- up of A-11

#### <u>Table IV – G</u>

<u>Applicable</u> <u>Requirement</u>	Regulation Title or Description of Requirement	<u>Federally</u> <u>Enforceable</u> <u>(Y/N)</u>	<u>Future</u> <u>Effective</u> <u>Date</u>
<u>60.11</u>	Compliance with Standards and Maintenance Requirements	<u>Y</u>	
<u>60.11(a)</u>	Compliance determined by performance tests	<u>Y</u>	upon start-
<u>60.11(d)</u>	Control devices operated using good air pollution control practice	<u>Y</u>	up of A-11 upon start- up of A-11
60.12	Circumvention	<u>Y</u>	
60.13	Monitoring Requirements	Y	
<u>60.13(a)</u>	Applies to all continuous monitoring systems	<u> </u>	upon start- up of A-11
<u>60.13(b)</u>	Monitors shall be installed and operational before performing performance tests	<u>Y</u>	upon start- up of A-11
<u>60.13(e)</u>	Continuous monitors shall operate continuously	<u>Y</u>	upon start- up of A-11
<u>60.13(f)</u>	Monitors shall be installed in proper locations	<u>Y</u>	upon start- up of A-11
<u>60.13(g)</u>	Requires multiple monitors for multiple stacks	<u>Y</u>	upon start- up of A-11
60.14	Modification	<u>Y</u>	
60.15	Reconstruction	<u>Y</u>	
<u>60.19</u>	General Notification and Reporting Requirements	<u>Y</u>	
<u>40 CFR</u> <u>Part 60,</u> <u>Subpart Cc</u>	Standards of Performance for New Stationary Sources – Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills (2/24/99)		
<u>60.36c(a)</u>	Collection and Control Systems in Compliance by 30 months after Initial NMOC Emission Rate Report Shows NMOC Emissions > 50 MG/year	<u>Y</u>	
<u>40 CFR Part</u> <u>62</u>	Approval and Promulgation of State Plans for Designated Facilities and Pollutants (6/9/03)		
<u>62.1100</u>	Identification of Plan	<u>Y</u>	
<u>62.1115</u>	Identification of Sources	<u>Y</u>	
<u>40 CFR Part</u> <u>63, Subpart</u> <u>A</u>	National Emission Standards for Hazardous Air Pollutants: General Provisions (4/22/04)		
<u>63.4</u>	Prohibited activities and circumvention	<u>Y</u>	
<u>63.5(b)</u>	Requirements for existing, newly constructed, and reconstructed sources	<u>Y</u>	
<u>63.6(e)</u>	Operation and maintenance requirements and SSM Plan	<u>Y</u>	upon start- up of A-11

#### <u>Table IV – G</u>

		<b>Federally</b>	<u>Future</u>
<b>Applicable</b>	Regulation Title or	<b>Enforceable</b>	<b>Effective</b>
<b><u>Requirement</u></b>	Description of Requirement	<u>(Y/N)</u>	<u>Date</u>
<u>63.6(f)</u>	Compliance with non-opacity emission standards	<u>Y</u>	upon start-
			<u>up of A-11</u>
<u>63.10(b)(2)</u>	Records for startup, shutdown, malfunction, and maintenance	<u>Y</u>	upon start-
<u>(i-v)</u>			<u>up of A-11</u>
<u>63.10(d)(5)</u>	Startup, Shutdown, and Malfunction (SSM) Reports	<u>Y</u>	upon start-
			<u>up of A-11</u>
40 CFR Part	National Emission Standards for Hazardous Air Pollutants: Municipal		
<u>63, Subpart</u>	Solid Waste Landfills (1/16/03)		
AAAA			
<u>63.1945</u>	When do I have to comply with this subpart?	<u>Y</u>	
<u>63.1945(b)</u>	Compliance date for existing affected landfills	<u>Y</u>	
<u>63.1955</u>	What requirements must I meet?	<u>Y</u>	
<u>63.1955(a)(2)</u>	Comply with State Plan that implements 40 CFR Part 60, Subpart Cc	<u>Y</u>	
<u>63.1955(b)</u>	Comply with 63.1960-63.1985, if a collection and control system is	<u>Y</u>	upon start-
	required by 40 CFR Part 60, Subpart WWW or a State Plan		<u>up of A-11</u>
	implementing 40 CFR Part 60, Subpart Cc		
<u>63.1955(c)</u>	Comply with all approved alternatives to standards for collection and	<u>Y</u>	upon start-
	control systems plus all SSM requirements and 6 month compliance		<u>up of A-11</u>
	reporting requirements		
<u>63.1960</u>	How is compliance determined?	<u>Y</u>	
<u>63.1965</u>	What is a deviation?	<u>Y</u>	
<u>63.1975</u>	How do I calculate the 3-hour block average used to demonstrate	<u>Y</u>	upon start-
	compliance?		<u>up of A-11</u>
<u>63.1980</u>	What records and reports must I keep and submit?	<u>Y</u>	
<u>63.1980(a)</u>	Comply with all record keeping and reporting requirements in 40 CFR	<u>Y</u>	upon start-
	Part 60, Subpart WWW or the State Plan implementing 40 CFR Part 60,		<u>up of A-11</u>
	Subpart Cc, except that the annual report required by 40 CFR 60.757(f)		
	must be submitted every 6 months		
<u>63.1980(b)</u>	Comply with all record keeping and reporting requirements in 40 CFR	<u>Y</u>	upon start-
	Part 60, Subpart A and 40 CFR Part 63, Subpart A, including SSM Plans		<u>up of A-11</u>
	and Reports		
BAAQMD			
Condition #			
<u>20754</u>		<b>.</b> -	
Part 1	Waste acceptance limits (Regulation 2-1-301)	<u>Y</u>	

#### <u>Table IV – G</u>

#### <u>Source-Specific Applicable Requirements</u> S-46 Hazardous Waste Management Facility with Landfill Gas Collection System; and A-11 Landfill Gas Flare for HWMF

<u>Applicable</u> <u>Requirement</u>	Regulation Title or Description of Requirement	<u>Federally</u> <u>Enforceable</u> <u>(Y/N)</u>	<u>Future</u> <u>Effective</u> <u>Date</u>
<u>Part 2</u>	Landfill gas collection system description (Regulations 2-1-301 and 8-34-301.1)	<u>Y</u>	
Part 3	Control requirements for collected landfill gas (Regulations 2-1-301 and 8-34-301)	<u>Y</u>	<u>upon start-</u> up of A-11
Part 4	Flare temperature limit (Toxic Risk Management Policy and Regulation 8-34-301.3)	<u>Y</u>	<u>upon start-</u> up of A-11
Part 5	NOx emission limit for flare (RACT and Cumulative Increase)	<u>Y</u>	upon start- up of A-11
Part 6	CO emission limit for flare (RACT and Cumulative Increase)	<u>Y</u>	upon start- up of A-11
Part 7	Landfill gas sulfur content limit (RACT and Cumulative Increase)	<u>Y</u>	upon start- up of A-11
Part 8	Annual source test (Regulations 8-34-301.3 and 8-34-412, RACT, and Cumulative Increase)	<u>Y</u>	upon start- up of A-11
Part 9	Annual landfill gas characterization test (Toxic Risk Management Policy, AB-2588 Air Toxics Hot Spots Act, and Regulations 8-34-412 and 9-1-302)	<u>Y</u>	<u>upon start-</u> <u>up of A-11</u>
<u>Part 10</u>	Landfill gas toxic compound concentration limits (Toxic Risk Management Policy and AB-2588 Air Toxics Hot Spots Act)	<u>N</u>	upon start- up of A-11
<u>Part 11</u>	Record keeping requirements (Regulations 2-1-301, 2-6-501, and 8-34-501)	<u>Y</u>	
Part 12	Reporting periods and report submittal due dates for the Regulation 8, Rule 34 report (Regulation 8-34-411 and 40 CFR 63.1980(a))	<u>Y</u>	

<u>1</u> This section has been removed from BAAQMD Regulations because it has been superseded. Nevertheless, the source must comply with this regulation until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

#### V. Schedule of Compliance

No changes to this section are proposed.

#### VI. Permit Conditions

During the Title V permit development, the District has reviewed the existing permit conditions, deleted the obsolete conditions, and as appropriate, revised the conditions for clarity and

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

enforceability. Each permit condition is identified with a unique numerical identifier, up to five digits. Where necessary to meet Title V requirements, additional monitoring, recordkeeping, or reporting has been added to the permit.

For this minor revision, the District is proposing revise Condition # 17821, Part 6 by deleting subpart b, which refers to Application # 2789. As discussed in the Engineering Evaluation for Application # 2789, the District decided to issue a separate source number for the HWMF disposal area, because this area will have a gas collection and control system that is isolated from the main landfill and that requires separate operating and control requirements and separate permit conditions from the main landfill. The District is proposing to add Condition # 20754 for S-46.

All changes to the permit conditions are clearly shown below in strikeout/underline format.

#### **Condition # 17821**

#### FOR: S-15, ACTIVE LANDFILL WITH LANDFILL GAS COLLECTION SYSTEM; AND A-8, LANDFILL GAS FLARE

(no changes to Parts 1-5)

- 6. The Permit Holder shall apply for and receive an Authority to Construct before modifying the landfill gas collection system described in Parts 6a-b below. Increasing or decreasing the number of wells or collectors, or significantly changing the length of collectors, or the locations of wells or collectors are all considered to be modifications that are subject to the Authority to Construct requirement.
  - The Permit Holder has been issued a Permit to Operate for the landfill gas a. collection system components listed below. Well and collector locations, depths, and lengths are as described in detail in Permit Application # 2417.

	Required Components
Total Number of Vertical Wells:	53
Total Number of Horizontal Collectors:	16
b. The Permit Holder has submitted Application #	# 2789 for a new separate
gas collection and control system for the HWN	IF section of the landfill.
This application is under review.	
(basis: Regulations 2-1-301, 8-34-301.1, 8-34-304, 8-3	34-305)

(no changes to Parts 7-15)

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

#### Condition # 20754

### For: S-46 Hazardous Waste Management Facility with Gas Collection System AND A-11 LANDFILL Gas Flare for HWMF

- 1.The S-46 Hazardous Waste Management Facility (HWMF) is inactive. The<br/>Permit Holder shall apply for and receive a Change of Permit Conditions before<br/>accepting any solid waste for disposal at S-46. The total cumulative amount of all<br/>decomposable wastes placed in the HWMF shall not exceed 210,700 tons. (Basis:<br/>Regulation 2-1-301)
- 2. The Permit Holder has been issued an Authority to Construct for 19 horizontal collectors. Specific locations, depths, and lengths of associated piping are as described in detail in Permit Application # 2789. The Permit Holder shall apply for and receive an Authority to Construct before modifying this gas collection system. Increasing or decreasing the number of wells or collectors, or significantly changing the length of collectors, or the locations of wells or collectors are all considered to be modifications that are subject to the Authority to Construct requirement. Upon start-up of the A-11 Landfill Gas Flare, this gas collection system shall be operated continuously. Wells shall not be shut off, disconnected or removed from operation without written authorization from the District, unless the Permit Holder complies with all applicable requirements of Regulation 8, Rule 34, Sections 113, 116, 117, and 118. (Basis: Regulations 2-1-301 and 8-34-301.1)
- 3. Upon start-up of A-11, all collected landfill gas shall be vented to the properly operating A-11 Landfill Gas Flare. Raw landfill gas shall not be vented to the atmosphere, except for unavoidable landfill gas emissions that occur during collection system installation, maintenance, or repair that is performed in compliance with Regulation 8, Rule 34, Sections 113, 116, 117, or 118 and for inadvertent component or surface leaks that do not exceed the limits specified in 8-34-301.2 or 8-34-303. (Basis: Regulations 2-1-301 and 8-34-301)
- 4. The combustion zone temperature of the A-11 Landfill Gas Flare shall be maintained at a minimum of 1400 degrees Fahrenheit, averaged over any 3-hour period. If a source test demonstrates compliance with all applicable requirements at a different temperature, the APCO may revise this minimum temperature limit in accordance with the procedures identified in Regulation 2-6-414 or 2-6-415, based on the following criteria. The minimum combustion zone temperature for the flare shall be equal to the average combustion zone temperature determined during the most recent complying source test minus 50 degrees F, provided that the minimum combustion zone temperature is not less than 1400 degrees F. (Basis: Toxic Risk Management Policy and Regulation 8-34-301.3)

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

- 5. Nitrogen Oxide (NOx) emissions from A-11 shall not exceed 0.06 pounds of NOx (calculated as NO2) per million BTU. The Permit Holder may demonstrate compliance with this emission rate limit by having a nitrogen oxide concentration in the flare exhaust of no more than 15 ppmv of NOx, corrected to 15% oxygen, dry basis. (Basis: RACT and Cumulative Increase)
- 6. Carbon Monoxide (CO) emissions from A-11 shall not exceed 0.30 pounds of CO per million BTU. The Permit Holder may demonstrate compliance with this emission rate limit by having a carbon monoxide concentration in the flare exhaust of no more than 122 ppmv of CO, corrected to 15% oxygen, dry basis. (Basis: RACT and Cumulative Increase)
- 7. The concentration of total reduced sulfur compounds in the landfill gas vented to <u>A-11 shall not exceed 150 ppmv, expressed as H<sub>2</sub>S, dry basis. (Basis: RACT and Cumulative Increase)</u>
- 8. In order, to demonstrate compliance with Regulation 8, Rule 34, Sections 301.3 and 412 and Parts 5 and 6 above, the Permit Holder shall ensure that a District approved source test is conducted on the A-11 Landfill Gas Flare, within 60 days of initial start-up of A-11 and annually thereafter. As a minimum, the source tests shall determine the following:
  - a. landfill gas flow rate to the flare (dry basis);
  - b. concentrations (dry basis) of carbon dioxide ( $CO_2$ ), nitrogen ( $N_2$ ), oxygen ( $O_2$ ), methane ( $CH_4$ ), and total non-methane organic compounds (NMOC) in the landfill gas;
  - c. stack gas flow rate from the flare (dry basis);
  - <u>d.</u> concentrations (dry basis) of  $NO_x$ , CO, NMOC, and  $O_2$  in the flare stack <u>gas</u>;
  - e. NMOC destruction efficiency achieved by the flare; and

f. the average combustion temperature in the flare during the test period. The Source Test Section of the District shall be contacted to obtain their approval of the source test procedures at least 14 days in advance of each source test. The Source Test Section shall be notified of the scheduled test date at least 7 days in advance of each source test. The source test report shall be submitted to the Compliance and Enforcement Division within 45 days of the test date. (Basis: Regulations 8-34-301.3 and 8-34-412, RACT, and Cumulative Increase)

 9. The Permit Holder shall conduct a characterization of the landfill gas concurrent with the annual source test required by Part 8 above. The landfill gas sample shall be drawn from the HWMF landfill gas header. In addition to the compounds listed in part 8b, the landfill gas shall be analyzed for all the organic compounds and sulfur compounds listed below. All concentrations shall be reported on a dry basis. The test report shall be submitted to the Compliance and Enforcement

Site A1840, West Contra Costa Sanitary Landfill, Inc. Foot of Parr Boulevard, Richmond, CA 94901

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

Division within 45 days of the test date. (Basis: Toxic Risk Management Policy, AB-2588 Air Toxics Hot Spots Act, and Regulations 8-34-412 and 9-1-302)

Organic Compounds acrylonitrile benzene benzyl chloride carbon tetrachloride chlorobenzene chlorodifluoromethane chloroethane chloroform 1,1 dichloroethane 1,1 dichlorethene 1.2 dichloroethane 1,4 dichlorobenzene dichlorodifluoromethane dichlorofluoromethane ethylbenzene ethylene dibromide fluorotrichloromethane hexane isopropyl alcohol methyl ethyl ketone methylene chloride perchloroethylene toluene 1,1,1 trichloroethane 1,1,2,2 tetrachloroethane trichloroethylene vinyl chloride xylenes

Sulfur Compounds hydrogen sulfide carbon disulfide carbonyl sulfide dimethyl sulfide ethyl mercaptan methyl mercaptan

\*10. If the concentrations (dry basis) of toxic air contaminants in the collected landfill gas exceed any of the limits listed below, the Permit Holder shall submit a permit

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

	pplication for a Change of Permit Conditions within 30 days of receiving the test
	esults.
	<u>Acrylonitrile = <math>6.3 \text{ ppmv}</math></u>
	<u>Benzene = <math>4.4 \text{ ppmv}</math></u>
	<u>Vinyl Chloride = 90.4 ppmv</u>
	Basis: Toxic Risk Management Policy and AB-2588 Air Toxics Hot Spots Act)
<u>11.</u>	n order to demonstrate compliance with the above conditions, the Permit Holder
	hall maintain the following records in a District approved logbook.
	. record the initial start-up date for each collector in the HWMF collection
	system,
	e. record the initial start-up date for the A-11 Landfill Gas Flare,
	record the dates times durations and reasons for each shut-down of (i) an

- c. record the dates, times, durations, and reasons for each shut-down of (i) an individual collector, (ii) the entire collection system, or (iii) the A-11 Flare.
- d. maintain records of the test dates and the test results for any tests conducted to demonstrate compliance with these permit conditions. (Basis: Regulations 2-1-301, 8-34-501, and 2-6-501)
- (Basis: Regulations 2-1-301, 8-34-301, and 2-6-301)
- 12. The annual report for the S-46 HWMF, which is required by BAAQMD Regulation 8-34-411 and 40 CFR Part 63.1980(a), shall be combined with the annual report for the S-15 Landfill and shall be submitted in accordance with the schedule identified in Condition # 17821, Part 15. (Basis: Regulation 8-34-411 and 40 CFR Part 63.1980(a))

#### VII. Applicable Limits and Compliance Monitoring Requirements

This section of the permit is a summary of numerical limits and related monitoring requirements that apply to each source. The summary includes a citation for each monitoring requirement, frequency, and type. The applicable requirements for monitoring are completely contained in Sections IV, Source-Specific Applicable Requirements, and VI, Permit Conditions, of the permit.

The monitoring requirements for S-46 and A-11 are identified below in the new Table VII-G. For this minor revision, the District is not proposing any changes to any existing federally enforceable monitoring requirements. New monitoring requirements for S-46 and A-11 and requirements for which no monitoring is proposed are discussed in detail after the table.

Site A1840, West Contra Costa Sanitary Landfill, Inc. Foot of Parr Boulevard, Richmond, CA 94901

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

Torrest	C'hat an c'h	EE	<u>Future</u>		<b>Monitoring</b>	<u>Monitoring</u>	Martin
<u>Type of</u> Limit	<u>Citation of</u> <u>Limit</u>	<u>FE</u> <u>Y/N</u>	<u>Effective</u> Date	Limit	Requirement Citation	<u>Frequency</u> (P/C/N)	<u>Monitoring</u> <u>Type</u>
Collection	BAAQMD	Y	Dute	For Inactive/Closed Areas:	BAAQMD	<u>нисиц</u> Р/Е	Records
System	<u>8-34-304.1</u>	-		<u>collection system</u>	<u>8-34-501.7</u>	<u>1711</u>	<u>records</u>
Installa-	<u>o o r co m</u>			components must be	and 501.8 and		
tion Dates				installed and operating by	BAAQMD		
				2  years + 60  days	Condition #		
				after initial waste	20754, Part		
				placement	<u>11a</u>		
Collection	BAAQMD	Y		For Active Areas:	BAAQMD	<u>P/E</u>	Records
<u>System</u>	<u>8-34-304.2</u>			Collection system	<u>8-34-501.7</u>		
<u>Installa-</u>				components must be	and 501.8 and		
tion Dates				installed and operating by	<u>BAAQMD</u>		
				5 years + 60 days	Condition #		
				after initial waste	<u>20754, Part</u>		
				<u>placement</u>	<u>11a</u>		
Collection	BAAQMD	<u>Y</u>		For Any Uncontrolled	BAAQMD	<u>P/E</u>	Records
<u>System</u>	<u>8-34-304.3</u>			Areas or Cells: collection	<u>8-34-501.7</u>		
Installa-				system components must be	and 501.8 and		
tion Dates				installed and operating	BAAQMD		
				within 60 days after the	Condition #		
				uncontrolled area or cell	<u>20754, Part</u>		
				accumulates 1,000,000 tons	<u>11a</u>		
				of decomposable waste			
Gas Flow	BAAQMD	<u>Y</u>	<u>Upon</u>	Landfill gas collection	BAAQMD	<u>C</u>	Gas Flow
	<u>8-34-301</u>		<u>Start-Up</u>	system shall operate	<u>8-34-501.10</u>		Meter and
	and 301.1		<u>of A-11</u>	continuously and all	and 508		Recorder
				collected gases shall be			<u>(every 15</u>
				vented to a properly			minutes)
				operating control system			

Site A1840, West Contra Costa Sanitary Landfill, Inc. Foot of Parr Boulevard, Richmond, CA 94901

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

			Futuro		Monitoring	Monitoring	
True of	Citation of	БĿБ	<u>Future</u>		<u>Monitoring</u> Requirement		Monitoring
<u>Type of</u> Limit	<u>Citation of</u>	<u>FE</u> <u>Y/N</u>	Effective	T :		<u>Frequency</u>	
Limit	Limit		Date	Limit	<u>Citation</u>	( <u>P/C/N</u> )	<u>Type</u>
Gas Flow	BAAQMD	<u>Y</u>	<u>Upon</u>	Landfill gas collection	BAAQMD	<u>P/D</u>	Records of
	Condition #		Start-Up	system shall operate	Condition #		Landfill Gas
	<u>20754,</u>		<u>of A-11</u>	continuously and all	<u>20754, Part</u>		Flow Rates,
	Parts			collected gases shall be	<u>11a-c</u>		Collection
	<u>2 and 3</u>			vented to a properly			and Control
				operating control system			Systems
							Downtime,
							and
							Collection
							<u>System</u>
							Components
Collection	BAAQMD	<u>Y</u>	<u>Upon</u>	240 hours/year nor 5	BAAQMD	<u>P/D</u>	Operating
and	<u>8-34-113.2</u>		Start-Up	consecutive days	<u>8-34-501.1</u>		Records
<u>Control</u>			<u>of A-11</u>				
Systems							
Shutdown							
Time							
<u>Startup</u>	<u>40 CFR</u>	<u>Y</u>	<u>Upon</u>	Minimize Emissions by	<u>40 CFR</u>	<u>P/E</u>	Records (all
Shutdown	<u>63.6(e)</u>		<u>Start-Up</u>	Implementing SSM Plan	<u>63.1980(a-b)</u>		occurrences,
<u>or Mal-</u>			<u>of A-11</u>				duration of
function							each,
Pro-							corrective
<u>cedures</u>							actions)
Periods of	BAAQMD	<u>Y</u>	<u>Upon</u>	15 consecutive	BAAQMD	<u>P/D</u>	<b>Operating</b>
Inopera-	<u>1-523.2</u>		Start-Up	days/incident and	<u>1-523.4</u>		Records for
tion for			<u>of A-11</u>	30 calendar days/12 month			All
Para-				period			Parametric
metric							Monitors
Monitors							
Contin-	<u>40 CFR</u>	Y	<u>Upon</u>	Requires Continuous	<u>40 CFR</u>	<u>P/D</u>	<u>Operating</u>
<u>uous</u>	<u>60.13(e)</u>		<u>Start-Up</u>	Operation except for	<u>60.7(b)</u>		Records for
Monitors			<u>of A-11</u>	breakdowns, repairs,			<u>All</u>
				calibration, and required			Continuous
				span adjustments			Monitors

Site A1840, West Contra Costa Sanitary Landfill, Inc. Foot of Parr Boulevard, Richmond, CA 94901

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

Type of	Citation of	FE	<u>Future</u> <u>Effective</u>		<u>Monitoring</u> <u>Requirement</u>	<u>Monitoring</u> <u>Frequency</u>	Monitoring
<u>Limit</u>	Limit	<u>Y/N</u>	Date	Limit	Citation	(P/C/N)	<u>Type</u>
Wellhead	BAAQMD	Y	<u>Upon</u>	<u>&lt; 0 psig</u>	BAAQMD	<u>P/M</u>	Monthly
Pressure	8-34-305.1		Start-Up		<u>8-34-414,</u>		Inspection
			<u>of A-11</u>		<u>501.9 and</u>		and Records
					<u>505.1</u>		
Temper-	BAAQMD	<u>Y</u>	<u>Upon</u>	<u>&lt; 55 °C</u>	BAAQMD	<u>P/M</u>	Monthly
ature of	<u>8-34-305.2</u>		<u>Start-Up</u>		<u>8-34-414,</u>		Inspection
<u>Gas at</u>			<u>of A-11</u>		501.9 and		and Records
Wellhead					<u>505.2</u>		
Gas	BAAQMD	<u>Y</u>	<u>Upon</u>	$N_2 < 20\%$ OR $O_2 < 5\%$	BAAQMD	<u>P/M</u>	Monthly
Concen-	<u>8-34-305.3</u>		<u>Start-Up</u>		<u>8-34-414,</u>		Inspection
trations at	<u>or 305.4</u>		<u>of A-11</u>		501.9 and		and Records
Wellhead					<u>505.3 or</u>		
					<u>505.4</u>		
Well	BAAQMD	<u>Y</u>	<u>Upon</u>	No more than 5 wells at a	BAAQMD	<u>P/D</u>	Records
Shutdown	<u>8-34-117.4</u>		<u>Start-Up</u>	time or 10% of total	<u>8-34-117.6</u>		
Limits			<u>of A-11</u>	collection system,	and 501.1		
				whichever is less			
Well	BAAQMD	<u>Y</u>	<u>Upon</u>	24 hours per well	BAAQMD	<u>P/D</u>	Records
Shutdown	<u>8-34-117.5</u>		<u>Start-Up</u>		<u>8-34-117.6</u>		
Limits			<u>of A-11</u>		and 501.1		
TOC	BAAQMD	<u>Y</u>	Upon In-	1000 ppmv as methane	BAAQMD	<u>P/Q</u>	<u>Quarterly</u>
(Total	<u>8-34-301.2</u>		stallation	(component leak limit)	<u>8-34-501.6</u>		Inspection
<u>Organic</u>			of Col-		and 503		of collection
Com-			lection				and control
pounds			Systems				system
<u>Plus</u>			and A-11				components
Methane)							with OVA
							and Records

Site A1840, West Contra Costa Sanitary Landfill, Inc. Foot of Parr Boulevard, Richmond, CA 94901

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

#### <u>Table VII – G</u>

			<u>Future</u>		Monitoring	Monitoring	
<u>Type of</u>	Citation of	<u>FE</u>	<b>Effective</b>		<u>Requirement</u>	<b>Frequency</b>	<u>Monitoring</u>
<u>Limit</u>	<u>Limit</u>	<u>Y/N</u>	<u>Date</u>	<u>Limit</u>	<u>Citation</u>	<u>(P/C/N)</u>	<u>Type</u>
TOC	BAAQMD	<u>Y</u>		500 ppmv as methane	BAAQMD	P/M, Q, and	Monthly
	<u>8-34-303</u>			at 2 inches above surface	<u>8-34-415,</u>	<u>E</u>	<u>Visual</u>
					<u>416, 501.6,</u>		Inspection
					506 and 510		of Cover,
							<u>Quarterly</u>
							Inspection
							with OVA
							of Surface,
							Various
							Reinspec-
							tion Times
							for Leaking
							Areas, and
							Records
Non-	BAAQMD	<u>Y</u>	<u>Upon</u>	98% removal by weight	<u>BAAQMD</u>	<u>P/A</u>	Initial and
Methane	<u>8-34-301.3</u>		Start-Up	<u>OR</u>	8-34-412 and		<u>Annual</u>
<u>Organic</u>			<u>of A-11</u>	<u>&lt; 30 ppmv,</u>	<u>8-34-501.4</u>		Source
Com-				dry basis @ 3% O2.	and		Tests and
pounds				expressed as methane	BAAQMD		Records
(NMOC)				(applies to A-11 Flare)	Condition #		
					<u>20754,</u>		
					Part 8		
Temper-	BAAQMD	<u>Y</u>	<u>Upon</u>	<u><math>CT &gt; 1400 ^{\circ}F</math></u> ,	BAAQMD	<u>C</u>	Temperature
ature of	Condition #		Start-Up	averaged over any 3-hour	<u>8-34-501.3</u>		Sensor and
Combus-	<u>20754,</u>		<u>of A-11</u>	period	<u>and 507, and</u>		Recorder
tion Zone	Part 4			(applies to A-11 Flare)	BAAQMD		(continuous)
<u>(CT)</u>					Condition#		
					<u>20754,</u>		
					Part 8f		
<u>Opacity</u>	BAAQMD	<u>Y</u>	<u>Upon</u>	Ringelmann No. 1 for	None	<u>N</u>	<u>NA</u>
	<u>6-301</u>		Start-Up	< 3 minutes/hour			
			<u>of A-11</u>	(applies to A-11 Flare)			

Site A1840, West Contra Costa Sanitary Landfill, Inc. Foot of Parr Boulevard, Richmond, CA 94901

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

			<u>Future</u>		Monitoring	Monitoring	
<u>Type of</u>	Citation of	<u>FE</u>	<b>Effective</b>		<b><u>Requirement</u></b>	<b>Frequency</b>	<b>Monitoring</b>
<u>Limit</u>	<u>Limit</u>	<u>Y/N</u>	<u>Date</u>	<u>Limit</u>	<b>Citation</b>	<u>(P/C/N)</u>	<u>Type</u>
<u>FP</u>	BAAQMD	<u>Y</u>	<u>Upon</u>	< 0.15 grains/dscf	None	<u>N</u>	<u>NA</u>
	<u>6-310</u>		Start-Up	(applies to A-11 Flare only)			
			<u>of A-11</u>				
$SO_2$	BAAQMD	Y	<u>Upon</u>	Property Line Ground	None	Ν	NA
	9-1-301		Start-Up	Level Limits:			
			of A-11	$\leq$ 0.5 ppm for 3 minutes			
				and $\leq 0.25$ ppm for 60 min.			
				and $\leq 0.05$ ppm for 24 hours			
<u>SO</u> <sub>2</sub>	BAAQMD	<u>Y</u>	<u>Upon</u>	<u>&lt; 300 ppm (dry basis)</u>	BAAQMD	<u>P/A</u>	<u>Sulfur</u>
	Regulation		<u>Start-Up</u>	(applies to A-11 Flare only)	Condition		<u>analysis of</u>
	<u>9-1-302</u>		<u>of A-11</u>		<u># 20754,</u>		<u>landfill gas</u>
					<u>Part 9</u>		
<u>Total</u>	BAAQMD	<u>Y</u>	<u>Upon</u>	< 150 ppmv of TRS,	<u>BAAQMD</u>	<u>P/A</u>	<u>Sulfur</u>
<u>Sulfur</u>	Condition #		Start-Up	expressed as H <sub>2</sub> S,	Condition		<u>analysis of</u>
Content in	<u>20754,</u>		<u>of A-11</u>	<u>dry basis</u>	<u># 20754,</u>		<u>landfill gas</u>
Landfill	Part 7				<u>Part 9</u>		
Gas							
$\underline{H}_2\underline{S}$	BAAQMD	<u>N</u>		Property Line Ground	None	<u>N</u>	<u>NA</u>
	<u>9-2-301</u>			Level Limits:			
				<u>&lt; 0.06 ppm,</u>			
				averaged over 3 minutes			
				<u>and &lt; 0.03 ppm.</u>			
				averaged over 60 minutes			
Amount	BAAQMD	<u>Y</u>		< 210,700 tons	BAAQMD	<u>P/E</u>	Records
of Waste	Condition #			(cumulative amount of all	<u>8-34-501.7</u>		
Accepted	<u>20754,</u>			decomposable wastes)	and 501.8		
	Part 1						

#### <u>Table VII – G</u> <u>Applicable Limits and Compliance Monitoring Requirements</u> <u>S-46 HAZARDOUS WASTE MANAGEMENT FACILITY WITH LANDFILL GAS COLLECTION</u> SYSTEM; AND A-11 LANDFILL GAS FLARE FOR HWMF

			<u>Future</u>		<b>Monitoring</b>	Monitoring	
Type of	Citation of	<u>FE</u>	<b>Effective</b>		<b>Requirement</b>	<b>Frequency</b>	<b>Monitoring</b>
<u>Limit</u>	<u>Limit</u>	<u>Y/N</u>	<b>Date</b>	<u>Limit</u>	<u>Citation</u>	<u>(P/C/N)</u>	<u>Type</u>
<u>NO</u> <sub>x</sub>	BAAQMD	<u>Y</u>	<u>Upon</u>	A-11 Flare Outlet	BAAQMD	<u>P/A</u>	Initial and
	Condition #		Start-Up	Concentration Limit:	Condition		<u>Annual</u>
	<u>20754,</u>		<u>of A-11</u>	$\leq$ 15 ppmv of NO <sub>x</sub> ,	<u># 20754,</u>		Source
	Part 5			at 15% O <sub>2</sub> , dry basis,	<u>Part 8</u>		Tests
				Unless A-11 Flare			
				Emissions Are:			
				< 0.06 pounds/MM BTU,			
				calculated as NO <sub>2</sub>			
<u>CO</u>	BAAQMD	<u>Y</u>	<u>Upon</u>	A-11 Flare Outlet	BAAQMD	<u>P/A</u>	Initial and
	Condition #		Start-Up	Concentration Limit:	Condition		<u>Annual</u>
	<u>20754,</u>		<u>of A-11</u>	< 122 ppmv of CO,	<u># 20754,</u>		Source
	Part 6			at 15% O <sub>2</sub> , dry basis,	<u>Part 8</u>		Tests
				Unless A-11 Flare			
				Emissions Are:			
				< 0.30 pounds/MM BTU			
Toxic Air	BAAQMD	<u>N</u>	<u>Upon</u>	Landfill Gas	<u>BAAQMD</u>	<u>P/A</u>	<u>Annual</u>
Contam-	Condition #		Start-Up	Concentration Limits:	Condition		Landfill Gas
<u>inants</u>	<u>20754,</u>		<u>of A-11</u>	Acrylonitrile 6.3 ppmv	<u># 20754,</u>		<u>Analysis</u>
	Part 10			Benzene 4.4 ppmv	Part 9		
				Vinyl Chloride 90.4 ppmv			

Monitoring decisions are typically the result of a balancing of several different factors including: 1) the likelihood of a violation given the characteristics of normal operation, 2) the degree of variability in the operation and in the control device, if there is one, 3) the potential severity of impact of an undetected violation, 4) the technical feasibility and probative value of indicator monitoring, 5) the economic feasibility of indicator monitoring, and 6) some other factor, such as a different regulatory restriction applicable to the same operation, that also provides some assurance of compliance with the limit in question.

These factors are the same as those historically applied by the District in developing monitoring for applicable requirements. It follows that, although Title V calls for a re-examination of all monitoring, there is a presumption that these factors have been appropriately balanced and incorporated in the District's prior rule development and/or permit issuance. When a rule or permit requirement has historically had no monitoring associated with it, no monitoring may still

Site A1840, West Contra Costa Sanitary Landfill, Inc. Foot of Parr Boulevard, Richmond, CA 94901

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

be appropriate in the Title V permit if, for instance, there is little likelihood of a violation. Compliance behavior and associated costs of compliance are determined in part by the frequency and nature of associated monitoring requirements. As a result, the District will generally revise the nature or frequency of monitoring only when it can support a conclusion that existing monitoring is inadequate.

The tables below contain only the limits for which there is no monitoring or inadequate monitoring in the applicable requirements. The District has examined the monitoring for other limits and has determined that monitoring is adequate to provide a reasonable assurance of compliance. Calculations for potential to emit will be provided when no monitoring is proposed due to the size of a source.

	Emission Limit	Federally Enforceable	
S# & Description	Citation	Emission Limit	Monitoring
A-11 Landfill Gas	BAAQMD Condition #	Outlet Concentration Limit:	Initial and Annual
Flare for HWMF	20754, Part 5	$\leq$ 15 ppmv of NO <sub>x</sub> ,	Source Tests
		at 15% O <sub>2</sub> , dry basis,	
		Unless Flare Emissions Are:	
		$\leq$ 0.06 pounds/MM BTU,	
		calculated as NO <sub>2</sub>	
A-11 Landfill Gas	BAAQMD Condition #	Outlet Concentration Limit:	Initial and Annual
Flare for HWMF	20754, Part 6	<u> &lt; 122 ppmv of CO, </u>	Source Tests
		at 15% O <sub>2</sub> , dry basis,	
		Unless Flare Emissions Are:	
		$\leq$ 0.30 pounds/MM BTU	

#### NO<sub>x</sub> and CO Sources

#### NO<sub>x</sub> and CO Discussion:

The District has imposed an annual source test requirement for  $NO_x$  and CO limits at landfill gas fired combustion equipment in other Title V permits. Annual source testing is a standard monitoring method for engines that are used for control of landfill gas. The new flare controls comparable quantities of landfill gas and has much lower emissions. Therefore, annual source testing is adequate for demonstrating compliance with the proposed  $NO_x$  and CO limits.

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
A-11 Landfill Gas Flare for HWMF	BAAQMD 9-1-301	Property Line Ground Level SO <sub>2</sub> Limits: $\leq 0.5$ ppm for 3 minutes and $\leq 0.25$ ppm for 60 min. and $\leq 0.05$ ppm for 24 hours	None
A-11 Landfill Gas	BAAQMD 9-1-302	Gas Stream SO <sub>2</sub> Limit:	Annual Sulfur Analysis
Flare for HWMF		$\leq$ 300 ppm (dry)	of Landfill Gas
S-46 HWMF	BAAQMD Condition #	$\leq$ 150 ppmv of TRS,	Annual Sulfur Analysis
	20754, Part 7	expressed as H <sub>2</sub> S, dry basis	of Landfill Gas

#### SO<sub>2</sub> Sources

#### SO<sub>2</sub> Discussion:

Maximum potential sulfur dioxide (SO<sub>2</sub>) emissions are calculated below for A-11 followed by a discussion of each applicable limit related to sulfur dioxide emissions.

Potential to Emit Calculations for the A-11 Landfill Gas Flare for HWMF:

As discussed in Application # 8514, maximum potential  $SO_2$  emissions are based on the maximum permitted total reduced sulfur compound concentration of 150 ppmv as H<sub>2</sub>S from BAAQMD Condition # 20754, Part 7 and the maximum possible landfill gas usage rate of 91,980,000 scf/year.

 $(91,980,000 \text{ ft}^3 \text{ LFG/year})^*(150 \text{ ft}^3 \text{ H}_2\text{S}/10^6 \text{ ft}^3 \text{ LFG})/(387 \text{ ft}^3 \text{ H}_2\text{S}/\text{lbmol H}_2\text{S})^*$ (1 lbmol SO<sub>2</sub>/1 lbmol H<sub>2</sub>S)\*(64.06 pounds SO<sub>2</sub>/lbmol SO<sub>2</sub>)/(2000 pounds SO<sub>2</sub>/ton SO<sub>2</sub>) = 1.14 tons SO<sub>2</sub>/year

BAAQMD Regulation 9-1-301: As discussed below for BAAQMD Regulations 9-1-302, this facility will be subject to federally enforceable limits, which will ensure compliance with the Regulation 9-1-302 gas stream emission limit of 300 ppmv of  $SO_2$  in the exhaust from the new flare. Based on modeling analyses conducted at another landfill site, sources complying with the Regulation 9-1-302 limits are not expected to result in an excess of the ground level concentration limits listed in Regulation 9-1-301. Monitoring for ground level  $SO_2$  concentrations in addition to the proposed landfill gas monitoring would not be appropriate.

BAAQMD Regulation 9-1-302: This facility will be subject to a federally enforceable limit of 150 ppmv of TRS in the landfill gas (BAAQMD Condition # 20754, Part 7). The landfill gas is assumed to contain a minimum of 40% methane, and the exhaust gas is assumed to have a minimum of 10% oxygen. As shown by the calculation below, the maximum SO2 exhaust

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

concentration that will result from this limit is far below the BAAQMD Regulation 9-1-302 limit of 300 ppmv of  $SO_2$  in the exhaust.

 $(150 \text{ ft}^3 \text{ H}_2\text{S} / 10^6 \text{ ft}^3 \text{ LFG})*(1 \text{ ft}^3 \text{ SO}_2/1 \text{ ft}^3 \text{ H}_2\text{S})/(4.0186 \text{ ft}^3 \text{ dry flue gas at 0% O}_2 / \text{ ft}^3 \text{ LFG})$ = 3.73E-5 ft<sup>3</sup> SO<sub>2</sub> / ft<sup>3</sup> dry flue gas at 0% O<sub>2</sub> = 37.3 ppmv of SO<sub>2</sub> at 0% O<sub>2</sub>, dry basis (37.3 ppmv of SO<sub>2</sub> at 0% O<sub>2</sub>)\*(20.9-10)/(20.9-0) = 19.5 ppmv of SO<sub>2</sub> at 10% O<sub>2</sub>, dry basis

Staff has proposed permit conditions (BAAQMD Condition # 20754, Part 9) that will require the landfill gas to be analyzed annually for total reduced sulfur compounds. The margin of compliance with this limit is (300/19.5) more than 15 to 1. Since the margin of compliance is high and sulfur dioxide emissions are low (1.14 tons/year), annual monitoring of the landfill gas is appropriate for demonstrating compliance with this limit.

BAAQMD Condition # 20754, Part 7: Staff has proposed permit conditions that require annual testing for the concentration of total reduced sulfur compounds in the landfill gas (BAAQMD Condition # 20754, Part 9). Recent testing at the main landfill for this site found 70 ppmv of TRS in the landfill gas. Based on the type of wastes generating landfill gas at the HWMF, the TRS concentration in gas from the HWMF is expected to be no higher than the TRS concentration at the main landfill and is not expected to vary appreciable. The margin of compliance with this limit is (150/70) about 2 to 1. Since the margin of compliance is sufficient and sulfur dioxide emissions are low, annual monitoring of the landfill gas for TRS is expected to be adequate for demonstrating compliance with the TRS concentration limit.

#### PM Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
A-11 Landfill Gas Flare for HWMF	BAAQMD 6-301	Ringelmann 1.0	None
A-11 Landfill Gas Flare for HWMF	BAAQMD 6-310	0.15 gr/dscf	None

#### PM Discussion:

Maximum potential  $PM_{10}$  emissions are described below for sources listed above that have a PM limit and no proposed monitoring for that limit.

Potential to Emit for A-11 Landfill Gas Flare for HWMF:

As discussed in Application # 8514, maximum potential  $PM_{10}$  emissions from A-11 are based on the AP-42 emission factor for flares of 17 pounds  $PM_{10}$  per MM scf of methane and the maximum heat input rate to the flare of 5.25 MM BTU/hour.

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

 $(5.25 \text{ E6 BTU/hour})*(24 \text{ hours/day})*(365 \text{ days/year})/(1000 \text{ BTU/ft}^3 \text{ CH}_4)*$ (17 lbs PM<sub>10</sub>/1 E6 ft<sup>3</sup> CH<sub>4</sub>)/(2000 lbs PM<sub>10</sub>/ton PM<sub>10</sub>) = 0.39 tons/year of PM<sub>10</sub>

BAAQMD Regulation 6-301: Visible particulate emissions are normally not associated with combustion of gaseous fuels, such as natural gas or landfill gas. Particulate emissions from A-11 are very low (0.39 tons/year). Since violations of Ringelmann 1.0 limit are not expected and particulate emissions are very low, periodic monitoring for the Ringelmann limit would not be appropriate for this flare.

BAAQMD Regulation 6-310: Regulation 6-310 limits filterable particulate (FP) emissions from any source to 0.15 grains per dry standard cubic foot (gr/dscf) of exhaust volume. The maximum grain-loading rate for A-11 is calculated below for landfill gas containing a maximum of 55% methane.

 $(17 \text{ lbs PM}_{10}/1 \text{ E6 ft}^3 \text{ CH}_4)*(7000 \text{ grains PM}_{10}/\text{lb PM}_{10})*(0.55 \text{ ft}^3 \text{ CH}_4/1 \text{ ft}^3 \text{ LFG})/(5.1506 \text{ ft}^3 \text{ dry flue gas at 0% O}_2/1 \text{ ft}^3 \text{ LFG}) = 0.013 \text{ grains PM}_{10}/\text{ft}^3 \text{ dry flue gas at 0% O}_2$ 

The compliance ratio with the Regulation 6-310 limit is (0.15/0.013) = 11.5 to 1. Since the Regulation 6-310 grain-loading limit is far above any expected PM emissions, and the PM emissions from A-11 are very low, it would not be appropriate to add periodic monitoring for this standard.

S# & Description	Emission Limit Citation	Emission Limit (Not Federally Enforceable)	Monitoring
S-46 HWMF	BAAQMD 9-2-301	Property line ground level limits: $\leq 0.06 \text{ ppm}$ Averaged over 3 minutes and $\leq 0.03 \text{ ppm}$ Averaged over 60 minutes	None
A-11 Landfill Gas Flare for HWMF	BAAQMD 9-2-301	Property line ground level limits: $\leq 0.06 \text{ ppm}$ Averaged over 3 minutes and $\leq 0.03 \text{ ppm}$ Averaged over 60 minutes	None

#### H<sub>2</sub>S Sources

Hydrogen Sulfide (H<sub>2</sub>S) Discussion:

BAAQMD Regulation 9-2-301: Hydrogen sulfide can be detected by its odor at concentrations as low as 0.0005 ppmv and is generally identified by its characteristic rotten egg smell at a concentration of 0.005 ppmv or less. Therefore,  $H_2S$  emissions are typically discovered by smell

Site A1840, West Contra Costa Sanitary Landfill, Inc. Foot of Parr Boulevard, Richmond, CA 94901

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

well before the concentration approaches the lowest Regulation 9-2-301 emission limit of 0.03 ppmv. The District rarely receives complaints about hydrogen sulfide odors from Bay Area landfills. During the last year, the District received only one complaint against this facility, and this complaint could not be confirmed by the District's inspection staff. Furthermore, the alleged complaint did not describe the smell as a rotten egg odor that is characteristic of  $H_2S$  emissions. Since  $H_2S$  odors have not been detected at this facility, the concentration of  $H_2S$  at the property line is expected to be well below the Regulation 9-2-301 limits. Furthermore, the maximum expected  $H_2S$  emissions are not expected to be significant and the BAAQMD Regulation 9-2-301 emission limits are not federally enforceable. Monitoring for ground level  $H_2S$  concentrations would not be appropriate when no  $H_2S$  odor problem exists.

#### **Other Limits**

		Non-Federally Enforceable	
S# & Description	Limit Citation	Limit	Monitoring
S-46 HWMF	BAAQMD Condition # 20754, Part 10	Landfill Gas Concentration Limits: Acrylonitrile 6.3 ppmv Benzene 4.4 ppmv Vinyl Chloride 90.4 ppmv	Annual Landfill Gas Characterization Analysis

Other Limits Discussion:

BAAQMD Condition # 20754, Part 10: These TAC concentration limits were used in conjunction with destruction efficiency assumptions to calculate annual TAC emissions. These annual TAC emission estimates were necessary for a risk screening analysis that was required pursuant to the District's Risk Management Policy. Therefore, these TAC concentration limits are not federally enforceable. An exceedence of one of these limits requires the Permit Holder to submit a permit application so that staff can conduct a new risk screening analysis, if required. Analysis of the landfill gas is a standard method of demonstrating compliance with TAC concentration limits in landfill gas. Since the TAC concentration limits reflect annual emission limits, an annual analysis of the landfill gas is adequate.

#### VIII. Test Methods

This section of the permit lists test methods that are associated with standards in District or other rules. It is included only for reference. In most cases, the test methods in the rules are source test methods that can be used to determine compliance but are not required on an ongoing basis. They are not applicable requirements.

The District is proposing to add the test method references for S-46 and A-11 that are listed below to Table VIII.

Applicable		
Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD	Flare Combustion Temperature	APCO Approved Device
Condition #	Limit	
20754, Part 4		
BAAQMD	Flare NO <sub>x</sub> Emissions Limit	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen,
Condition #		Continuous Sampling and ST-14, Oxygen, Continuous Sampling
20754, Part 5		
BAAQMD	Flare CO Emissions Limit	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide,
Condition #		Continuous Sampling and ST-14, Oxygen, Continuous Sampling
20754, Part 6		
BAAQMD	Landfill Gas Sulfur Content	Manual of Procedures, Volume III, Method 44 Determination of
Condition #	Limit	Reduced Sulfur Gases and Sulfur Dioxide in Effluent Samples by
20754, Part 7		Gas Chromatographic Methods, or ASTM D 1072-80 or 90, D
		3031-81, D 4084-82 or 94, or D 3246-81, 92, or 96
BAAQMD	Flare Source Test	Outlet: Manual of Procedures, Volume IV, ST-17, Stack Gas
Condition #		Velocity and Volumetric Flow Rate; ST-23 Water Vapor; ST-14,
20754, Part 8		Oxygen, Continuous Sampling; ST-13A, Oxides of Nitrogen,
		Continuous Sampling; ST-6, Carbon Monoxide, Continuous
		Sampling; Manual of Procedures, Volume IV, ST-19A, Sulfur
		Dioxide, Continuous Sampling; and Manual of Procedures,
		Volume IV, ST-7, Organic Compounds or EPA Reference
		<u>Methods 18, 25, 25A, or 25C;</u>
		Inlet: EPA Reference Method 3C
BAAQMD	Landfill Gas Characterization	EPA Reference Method 18, Measurement of Gaseous Organic
Condition #	Test	Compound Emissions by Gas Chromatography; and
20754, Part 9		Manual of Procedures, Volume III, Method 44 Determination of
		Reduced Sulfur Gases and Sulfur Dioxide in Effluent Samples by
		Gas Chromatographic Methods, or ASTM D 1072-80 or 90, D
		<u>3031-81, D 4084-82 or 94, or D 3246-81, 92, or 96</u>
BAAQMD	Toxic Compound Concentration	APCO approved sampling procedures described in BAAQMD
Condition #	Limits (in landfill gas)	Condition # 20754, Part 9 and GC Analysis for all compounds
20754, Part 10		listed in Part 10

#### Table VIII Test Methods

Site A1840, West Contra Costa Sanitary Landfill, Inc. Foot of Parr Boulevard, Richmond, CA 94901

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

#### IX. Permit Shield

This facility has no permit shields, and no changes to this section are proposed.

#### X. Revision History

...

This section summarizes the revisions that have been made to the permit since it was initially issued. The changes associated with this proposed minor revision will be summarized in Section X as indicated below.

## Minor Revision (Applications # 2789 and # 8514):[Insert Date]• Correct the District contact person on the Title Page.

- Update regulatory amendment dates in Section I.A.
- <u>Clarify standard conditions by adding Section I.B.12 and</u> by revising Section I.G.
- Correct the bases for Sections I.B.11, I.E.2, and I.F.
- <u>Add S-46 to Table II-A.</u>
- Add A-11 and correct a limit for A-8 in Table II-B.
- <u>Correct a typographical error and add web site address to</u> <u>Section III.</u>
- <u>Correct errors, update regulatory amendment dates, and</u> <u>include new non-federally enforceable generally applicable</u> <u>requirements in Table III.</u>
- <u>Correct a typographical error and add web site address to</u> <u>Section IV.</u>
- <u>Update regulatory amendment dates in Tables IV-A, IV-B,</u> <u>IV-E, and IV-F.</u>
- Add Table IV-G for S-46 and A-11.
- <u>Delete subpart b of Condition # 17821, Part 6, because the</u> <u>subpart is no longer necessary.</u>
- Add Condition # 20754 for S-46 and A-11.
- Add Table VII-G for S-46 and A-11.
- Add all applicable test methods for S-46 and A-11 to Table <u>VIII.</u>
- <u>Update the revision history in Section X.</u>
- Add several terms to the glossary in Section XI.
- Correct the web site address listed in Section XII.

Site A1840, West Contra Costa Sanitary Landfill, Inc. Foot of Parr Boulevard, Richmond, CA 94901

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

#### XI. Glossary

This section explains words, phrases, acronyms, symbols, and usage unit abbreviations that are used in this permit. The following terms will be added to the Glossary:

#### **ATCM**

Airborne Toxic Control Measure

#### <u>HWMF</u>

Hazardous Waste Management Facility

#### XII. Applicable State Implementation Plan

This section provides the web site address for the SIP versions of BAAQMD rules and regulations. The web site address has changed and will be corrected as indicated below.

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

http://yosemite1.epa.gov/r9/r9sips.nsf/California?ReadForm&Start=1&Count=30&Expand=3.1 http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California& cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions

#### **D.** Alternate Operating Scenarios:

No alternate operating scenarios have been requested for this facility. No changes are proposed for this section pursuant to this minor MFR permit revision.

#### E. Compliance Status:

There is no change in compliance status for this facility.

#### F. Differences between the Application and the Proposed Permit:

The application materials for the minor MFR revision are contained in Application # 8514. The applicant applied to add an abatement device (the A-11 flare). For this proposed minor revision, the District included A-11, the source that this abatement device is controlling (S-46 HWMF), and the gas collection system for S-46. The District proposed a correction to Condition # 17821, Part 6, which the applicant did not address. The applicant did not discuss applicable requirements for A-11, while the District's proposed permit includes all a list of applicable

Minor Revision to Include the Inactive Hazardous Waste Management Facility (S-46) and Flare (A-11) and Miscellaneous Administrative Corrections

requirements for S-46 and A-11, a summary of all emission limits and compliance monitoring requirements, and test method references for the new requirements. The District is also proposing several administrative corrections to this permit, which were not discussed by the application materials.

H:\Engineering\TITLE V Permit Appls\1 ALL T5 Application Files here\A1840\Minor-2789-8514\A1840Csob-2789-8514.doc