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

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

### **Final**

### **MAJOR FACILITY REVIEW PERMIT**

# Issued To: Gas Recovery Systems, Inc. Facility #B1669

**Facility Address:** 

15999 Guadalupe Mines Road San Jose, CA 95120

**Mailing Address:** 

5717 Brisa Street Livermore, CA 94550

**Responsible Official** 

Alan J. Purves, COO (925) 461-4400

**Facility Contact** 

Matthew Nourot, Environmental Manager (925) 606-3700

**Type of Facility:** Landfill Gas BAAQMD Permit Division Contact: **Primary SIC:** 4911 Hon Man

Primary SIC: 4911
Product: Electrical Power

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Signed by Ellen Garvey	July 15, 2002
Ellen Garvey, Air Pollution Control Officer	Date

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### I. STANDARD CONDITIONS

### A. Administrative Requirements

The permit holder shall comply with all applicable requirements in the following regulations:

BAAQMD Regulation 1 - General Provisions and Definitions

(as amended by the District Board on 5/2/01);

SIP Regulation 1 - General Provisions and Definitions

(as approved by EPA through 8/27/99);

BAAQMD Regulation 2, Rule 1 - Permits, General Requirements

(as amended by the District Board on 8/1/01);

SIP Regulation 2, Rule 1 - Permits, General Requirements

(as approved by EPA through 2/25/99);

BAAQMD Regulation 2, Rule 2 - Permits, New Source Review

(as amended by the District Board on 5/17/00);

SIP Regulation 2, Rule 2 - Permits, New Source Review and Prevention of Significant Deterioration

(as approved by EPA through 2/25/99);

BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking

(as amended by the District Board on 5/17/00);

SIP Regulation 2, Rule 4 - Permits, Emissions Banking

(as approved by EPA through 2/25/99); and

BAAQMD Regulation 2, Rule 6 - Permits, Major Facility Review

(as amended by the District Board on 5/2/01).

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

- 1. This Major Facility Review Permit was issued on November 30, 2001 and expires on October 31, 2006. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than April 30, 2006 and no earlier than October 31, 2005. **If a complete application for renewal has not been submitted in accordance with this deadline, the facility may not operate after** October 31, 2006. (Regulation 2-6-307, 404.2, & 409.6; MOP Volume II, Part 3, §4.2)
- 2. The permit holder shall comply with all conditions of this permit. The permit consists of this document and all appendices. Any non-compliance with the terms and conditions of this permit will constitute a violation of the law and will be grounds for enforcement action; permit termination, revocation and re-issuance, or modification; or denial of a permit renewal application. (Regulation 2-6-307; MOP Volume II, Part 3, §4.11)
- 3. In the event any enforcement action is brought as a result of a violation of any term or condition of this permit, the fact that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with such term or condition shall not be a defense to such enforcement action. (MOP Volume II, Part 3, §4.11)

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### I. Standard Conditions

- 4. This permit may be modified, revoked, reopened and reissued, or terminated for cause. (Regulation 2-6-307, 409.8, 415; MOP Volume II, Part 3, §4.11)
- 5. The filing of a request by the facility for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated non-compliance does not stay the applicability of any permit condition. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
- 6. This permit does not convey any property rights of any sort, or any exclusive privilege. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
- 7. The permit holder shall supply within 30 days any information that the District requests in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. (Regulation 1-441, Regulation 2-6-409.4 & 501; MOP Volume II, Part 3, §4.11)
- 8. Any records required to be maintained pursuant to this permit which the permittee considers to contain proprietary or trade secret information shall be prominently designated as such. Copies of any such proprietary or trade secret information which are provided to the District shall be maintained by the District in a locked confidential file, provided, however, that requests from the public for the review of any such information shall be handled in accordance with the District's procedures set forth in Section 11 of the District's Administrative Code. (Regulation 2-6-419; MOP Volume II, Part 3, §4.11)
- 9. Proprietary or trade secret information provided to EPA will be subject to the requirements of 40 CFR Part 2, Subpart B Public Information, Confidentiality of Business Information. (40 CFR Part 2)
- 10. The emissions inventory submitted with the application for this Major Facility Review Permit is an estimate of actual emissions for the time period stated and is included only as one means of determining applicable requirements for emission sources. It does not establish, or constitute a basis for establishing, any new emission limitations. (MOP Volume II, Part 3, §4.11)
- 11. The responsible official shall certify all documents submitted by the facility pursuant to the major facility review permit. The certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. The certifications shall be signed by a responsible official for the facility. (MOP Volume II, Part 3, §4.11)

### C. Requirement to Pay Fees

The permit holder shall pay annual fees in accordance with District Regulation 3, including Schedule P. (Regulation 2-6-402 & 409.13, Regulation 3; MOP Volume II, Part 3, §4.12)

### **D.** Inspection and Entry

Access to Facility: The permit holder shall provide reasonable access to the facility and equipment which is subject to this permit to the APCO and/or to his or her designee. (Regulation 1-440, Regulation 2-6-409.3; MOP Volume II, Part 3, §4.14)

#### E. Records

1. The permit holder must provide any information, records, and reports requested or

### I. Standard Conditions

specified by the APCO. (Regulation 1-441, Regulation 2-6-409.4)

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

### F. Monitoring Reports

Reports of all required monitoring must be submitted to the District at least once every six months, except where an applicable requirement specifies more frequent reporting. The first reporting period for this permit shall be November 30, 2001 to April 30, 2002. The report shall be submitted by May 31, 2002. Subsequent reports shall be for the following periods: May 1st through October 31st and November 1st through April 30th, and are due on the last day of the month after the end of the reporting period. All instances of non-compliance shall be clearly identified in these reports. The reports shall be certified by the responsible official as true, accurate, and complete. In addition, all instances of non-compliance with the permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions. The reports shall be sent to the following address:

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

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

### **G.** Compliance Certification

Compliance certifications shall be submitted annually by the responsible official of this facility to the Bay Area Air Quality Management District and to the Environmental Protection Agency. The certification period will be November 1st to October 31st. The certification shall be submitted by November 30th of each year. The certification must list each applicable requirement, the compliance status, whether compliance was continuous or intermittent, the method used to determine compliance, and any other specific information required by the permit. The permit holder may satisfy this requirement through submittal of District-generated Compliance Certification forms. The certification should be directed to the District's Compliance and Enforcement Division at the address above, and a copy of the certification should be sent to the Environmental Protection Agency at the following address:

Director of the Air Division USEPA, Region IX 75 Hawthorne Street

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### I. Standard Conditions

San Francisco, CA 94105 Attention: Air-3

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

### **H.** Emergency Provisions

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

### I. Severability

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

#### J. Miscellaneous Conditions

1. The maximum capacity for each source as shown in Table II-A is the maximum allowable capacity. Exceedance of the maximum allowable capacity for any source is a violation of Regulation 2, Rule 1, Section 301. (Regulation 2-1-301)

### II. EQUIPMENT

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

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

S-#	Description	Make or Type	Model	Capacity
2	Internal Combustion Engine,	Superior, Rich Burn	8G825	750 HP
	Landfill Gas (landfill gas)			6.75 MM BTU/hour
3	Internal Combustion Engine,	Superior, Rich Burn	8G825	750 HP
	Landfill Gas (landfill gas)			6.75 MM BTU/hour
4	Internal Combustion Engine,	Superior, Rich Burn	8G825	750 HP
	Landfill Gas (landfill gas)			6.75 MM BTU/hour
5	Internal Combustion Engine,	Waukesha GL Series	7042 GL	1547 HP
	Landfill Gas (landfill gas)	Lean Burn		13.5 MM BTU/hour
7	Landfill Gas Condensate	Fixed Roof		6500 Gallons
	Storage Tank			

**Table II B - Abatement Devices** 

<b>A</b> //	D	Source(s)	Applicable	Operating	Limit or
A-#	Description	Controlled	Requirement	Parameters	Efficiency
1	Genstar Thermal Reactor	2	BAAQMD		740 ppmv CO
			Condition		@ 15% O2
			#17777: part 4		
2	Genstar Thermal Reactor	3	BAAQMD		740 ppmv CO
			Condition		@ 15% O2
			#17777: part 4		
3	Genstar Thermal Reactor	4	BAAQMD		740 ppmv CO
			Condition		@ 15% O2
			#17777: part 4		

### III. GENERALLY APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP Rules and Regulations and other federal requirements cited below. These requirements apply in a general manner to the facility and/or to sources exempt from the requirement to obtain a District Permit to Operate. The District has determined that these requirements will not be violated under normal, routine operations, and that no additional periodic monitoring or reporting to demonstrate compliance is warranted. In cases where a requirement, in addition to being generally applicable, is also specifically applicable to one or more sources, the requirement and the source are also included in Section IV, Source-Specific Applicable Requirements, of this permit.

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

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

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

#### NOTE:

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

Table III
Generally Applicable Requirements

		Federally
Applicable	Regulation Title or	Enforceable
Requirement	Description of Requirement	(Y/N)
BAAQMD Regulation 1	General Provisions and Definitions (5/2/01)	N
SIP Regulation 1	General Provisions and Definitions (8/27/99)	Y
BAAQMD Regulation 2, Rule 1	General Requirements (8/1/01)	N
BAAQMD 2-1-429	Federal Emissions Statement (6/7/95)	Y
SIP Regulation 2, Rule 1	General Requirements (8/27/99)	Y
BAAQMD Regulation 4	Air Pollution Episode Plan (3/20/91)	N
SIP Regulation 4	Air Pollution Episode Plan (8/06/90)	Y
BAAQMD Regulation 5	Open Burning (11/2/94)	Y

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## III. Generally Applicable Requirements

## Table III Generally Applicable Requirements

Applicable	Regulation Title or	Federally Enforceable
Requirement	Description of Requirement	(Y/N)
BAAQMD Regulation 6	Particulate Matter and Visible Emissions (12/19/90)	Y
BAAQMD Regulation 7	Odorous Substances (3/17/82)	N
BAAQMD Regulation 7	Odorous Substances (3/17/82)	N
BAAQMD Regulation 8, Rule 1	Organic Compounds - General Provisions (6/15/94)	Y
BAAQMD Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (12/20/95)	Y
BAAQMD Regulation 8, Rule 5	Storage of Organic Liquids (12/15/99)	N
SIP Regulation 8, Rule 5	Storage of Organic Liquids (8/25/97)	Y
BAAQMD Regulation 8, Rule 16	Organic Compounds – Solvent Cleaning Operations (9/16/98)	N
SIP Regulation 8, Rule 16	Organic Compounds – Solvent Cleaning Operations (12/9/94)	$Y^1$
BAAQMD Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (12/20/95)	N
SIP Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (3/22/95)	Y
BAAQMD Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products (12/20/95)	N
BAAQMD Regulation 11, Rule 2	Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing (12/4/91)	Y
BAAQMD Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (7/11/90)	Y
California Health and Safety Code Section 44300 et seq.	Air Toxics "Hot Spots" Information and Assessment Act of 1987	N

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### IV. SOURCE-SPECIFIC APPLICABLE REQUIREMENTS

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

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

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

The full text of each permit condition cited is included in Section VI, Permit Conditions, of this permit. The full language of SIP requirements is on EPA Region 9's website. The address is inluded at the end of this permit. All other text may be found in the regulations themselves

Table IV – A
Source-specific Applicable Requirements
S-2, S-3 & S-4 Internal Combustion Engines, Landfill Gas fired

Applicable Requirement	Regulation Title or  Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD			
Regulation 1	General Provisions and Definitions (5/17/00)		
1-523	Parametric Monitoring and Recordkeeping Procedures	Z	before performance test and not later than 6/27/02
1-523.1	Reporting requirement for periods of inoperation > 24 hours	N	before performance test and not later than 6/27/02

## IV. Source-specific Applicable Requirements

## Table IV – A Source-specific Applicable Requirements S-2, S-3 & S-4 Internal Combustion Engines, Landfill Gas fired

Applicable	Regulation Title or	Federally Enforceable	Future Effective
Requirement	Description of Requirement	(Y/N)	Date
1-523.2	Limit on duration of inoperation	N	before per-
			formance
			test and not
			later than
			6/27/02
1-523.3	Reporting requirement for violations of any applicable limits	N	before per-
			formance
			test and not
			later than
			6/27/02
1-523.4	Records of inoperation, tests, calibrations, adjustments, &	N	before per-
	Maintenance		formance
			test and not
			later than
			6/27/02
BAAQMD			
Regulation 6	Particulate Matter and Visible Emissions (12/19/90)		
6-301	Ringelmann No. 1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particle Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
BAAQMD			
Regulation 8,	Organic Compounds - Solid Waste Disposal Sites (10/6/99)		
Rule 34			
8-34-113	Limited Exemption, Inspection and Maintenance	Y	
8-34-113.1	Emission Minimization Requirement	Y	
8-34-113.2	Shutdown Time Limitation	Y	
8-34-113.3	Recordkeeping Requirement	Y	

## IV. Source-specific Applicable Requirements

## Table IV – A Source-specific Applicable Requirements S-2, S-3 & S-4 Internal Combustion Engines, Landfill Gas fired

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
8-34-114	Limited Exemption, Energy Recovery Device and Emission Control	Y	Expires
	System		7/1/02 (exp.
			date not in
			SIP)
8-34-301	Landfill Gas Collection and Emission Control System Requirements	Y	
8-34-301.1	Continuous Operation	Y	
8-34-301.2	Collection and Control Systems Leak Limitations	Y	
8-34-301.4b	Limits for Other Emission Control Systems	Y	7/1/02
8-34-412	Compliance Demonstration Tests	Y	10/1/02
8-34-413	Performance Test Report	Y	1/1/03
8-34-501	Operating Records	Y	
8-34-501.2	Emission Control System Downtime	Y	
8-34-501.3	Continuous Temperature Records for Enclosed Combustors	Y	7/1/02
8-34-501.4	Testing	Y	
8-34-501.6	Leak Discovery and Repair Records (Permit holder is responsible only	Y	
	for collection system components that are owned by the permit holder)		
8-34-501.10	Gas Flow Rate Records for All Emission Control Systems	Y	7/1/02
8-34-501.12	Records Retention for 5 Years	Y	
8-34-503	Landfill Gas Collection and Emission Control System Leak Testing	Y	
	(Permit holder is responsible only for collection system components that		
	are owned by the permit holder)		
8-34-504	Portable Hydrocarbon Detector	Y	
8-34-507	Continuous Temperature Monitor and Recorder	Y	7/1/02
8-34-508	Gas Flow Meter	Y	7/1/02
SIP			
Regulation 8,	Organic Compounds - Solid Waste Disposal Sites (6/15/94)		
Rule 34			
8-34-113	Exemption, Inspection and Maintenance	Y	
8-34-113.1	Emission Minimization Requirement	Y	
8-34-113.2	Shutdown Time Limitation	$Y^1$	
8-34-113.3	Recordkeeping Requirement	Y	

## IV. Source-specific Applicable Requirements

## Table IV – A Source-specific Applicable Requirements S-2, S-3 & S-4 Internal Combustion Engines, Landfill Gas fired

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
8-34-114	Limited Exemption, Energy Recovery Device and Emission Control	$Y^1$	
	System		
8-34-301	Landfill Gas Collection and Emission Control System Requirements	Y	
8-34-301.1	Collection and Control Systems Leak Limitations	Y	
8-34-301.4	Continuous Operation	Y	
8-34-501	Operating Records	Y	
8-34-501.2	Emission Control System Downtime	Y	
8-34-501.4	Records of Testing for Compliance with 8-34-111.3 or 301	Y	
8-34-501.6	Records Retention	Y	
8-34-503	Landfill Gas Collection and Emission Control System Leak Testing	Y	
	(Permit holder is responsible only for collection system components		
	that are owned by the permit holder)		
8-34-504	Portable Hydrocarbon Detector	Y	
BAAQMD	Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)		
Regulation 9,			
Rule 1			
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
BAAQMD	Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/99)		
Regulation 9,			
Rule 2			
9-2-301	Limitations on Hydrogen Sulfide	N	
BAAQMD	Inorganic Gaseous Pollutants - Nitrogen Oxides and Carbon		
Regulation 9	Monoxide from Stationary Internal Combustion Engines (1/20/93)		
Rule 8			
9-8-302	Emission Limits – Waste Derived Fuel Gas	Y	
9-8-302.2	Rich-Burn Engines: NOx Emission Limit	Y	
9-8-302.3	CO Emission Limit	Y	
40 CFR Part	Standards of Performance for New Stationary Sources – General		
60, Subpart	Provisions (5/4/98)		
A			

## IV. Source-specific Applicable Requirements

## Table IV – A Source-specific Applicable Requirements S-2, S-3 & S-4 Internal Combustion Engines, Landfill Gas fired

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
60.4(b)	Requires Submission of Requests, Reports, Applications, and Other	Y	
	Correspondence to the Administrator		
60.7	Notification and Record Keeping	Y	
60.8	Performance Tests	Y	
60.11	Compliance with Standards and Maintenance Requirements	Y	
60.11(a)	Compliance determined by performance tests	Y	
60.11(d)	Good air pollution control practice	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.13(a)	Applies to all continuous monitoring systems	Y	
60.13(b)	Monitors shall be installed and operation before performing	Y	
	performance tests		
60.13(e)	Continuous monitors shall operate continuously	Y	
60.13(f)	Monitors shall be installed in proper locations	Y	
60.13(g)	Requires multiple monitors for multiple stacks	Y	
60.14	Modification	Y	
60.15	Reconstruction	Y	
60.19	General Notification and Reporting Requirements	Y	
40 CFR Part	Standards of Performance for New Stationary Sources – Standards of		
60, Subpart	Performance for Municipal Solid Waste Landfills (2/24/99)		
www			
60.752	Reduce NMOC emissions by 98% by weight or reduce NMOC outlet	Y	2/12/02
(b)(2)(iii)(B)	concentration to less than 20 ppmv as hexane at 3% O2, dry basis		
60.752	Operate in accordance with 60.753(e), 60.753(f), 60.755(e), and	Y	2/12/02
(b)(2)(iv)	60.756(b)		
60.753(e)	Vent all collected gases to a control system complying with	Y	2/12/02
	60.752(b)(2)(iii) (The permit holder is responsible only for gases		
	routed to its collection and control equipment)		
60.753(f)	Operate the control system at all times when collected gas is routed to	Y	2/12/02
	the control system		
60.754(d)	Test Methods for Performance Test (Method 18 or 25C)	Y	

## IV. Source-specific Applicable Requirements

## Table IV – A Source-specific Applicable Requirements S-2, S-3 & S-4 Internal Combustion Engines, Landfill Gas fired

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
60.755(e)	Provisions apply at all times except during startup, shutdown, or	Y	2/12/02
	malfunction, provided the duration of these shall not exceed 5 days for		
	collection systems or 1 hour for control systems (The permit holder is		
	responsible only for its collection and control equipment)		
60.756(b)	Enclosed combustors shall comply with (b)(1) and (b)(2)	Y	
60.756(b)(1)	Temperature monitor and continuous recorder	Y	before per-
			formance
			test and not
			later than
			6/27/02
60.756(b)(2)	Device that records flow to or bypass of the control device	Y	2/12/02
60.757(f)	Submit Annual Reports containing information required by (f)(1),	Y	8/11/02
	(f)(2), and (f)(3)		
60.757(f)(1)	Value and length of time for exceedance of parameters monitored	Y	8/11/02
	per 60.756(b) or (e)		
60.757(f)(2)	Description and duration of all periods when gas is diverted from	Y	8/11/02
	the control device by a by-pass line		
60.757(f)(3)	Description and duration of all periods when control device was	Y	8/11/02
	not operating for more than 1 hour		
60.758(b)	Control Equipment Records	Y	
60.758(b)(2)	Performance test data for enclosed combustors other than boilers		
	or process heaters (greater than 44 MW heat input)		
60.758(c)	Records of parameters monitored pursuant to 60.756(b) or (e)	Y	
60.758(e)	Records of any exceedance of 60.753(e) or (f)	Y	
BAAQMD			
Condition #			
17777			
Part 1	Exclusively on landfill gas (Plant Cumulative Increase)	Y	
Part 3	NO2 from each engine ≤ 210 ppmv, dry @ 15% O2	Y	
	(BACT and Regulation 9-8-302.2)		
Part 4	CO from each engine ≤ 740 ppmv, dry @ 15% O2	Y	
	(BACT and Plant Cumulative Increase)		

## IV. Source-specific Applicable Requirements

# Table IV – A Source-specific Applicable Requirements S-2, S-3 & S-4 INTERNAL COMBUSTION ENGINES, LANDFILL GAS FIRED

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
Part 7 a-f	Annual source test (Regulations 8-34-114, 8-34-301.4, 8-34-412, 9-8-	Y	
	302.1, 9-8-302.2, and 9-8-302.3, 40 CFR 60.752(b)(2)(iii)(B), BACT, and		
	Plant Cumulative Increase)		
Part 8	Total reduced sulfur compounds of the collected landfill gas ≤ 1300 ppmv	Y	
	(dry) (Regulation 9-1-302)		
Part 9	Annual throughput limit (Regulation 2-1-301)	Y	
Part 10 a-e	Recordkeeping for throughput limit (Regulation 2-1-301)	Y	
Part 11	Information for design plans and annual reports (Regulation 1-441)	Y	

<sup>1</sup> 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.

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## IV. Source-specific Applicable Requirements

Table IV – B
Source-specific Applicable Requirements
S-5 Internal Combustion Engines, Landfill Gas Fired

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
BAAQMD			
Regulation 1	General Provisions and Definitions (5/17/00)		
1-523	Parametric Monitoring and Recordkeeping Procedures	N	
			before per-
			formance
			test and not
			later than
			6/27/02
1-523.1	Reporting requirement for periods of inoperation > 24 hours	N	before per-
			formance
			test and not
			later than
			6/27/02
1-523.2	Limit on duration of inoperation	N	before per-
			formance
			test and not
			later than
			6/27/02
1-523.3	Reporting requirement for violations of any applicable limits	N	before per-
			formance
			test and not
			later than
			6/27/02
1-523.4	Records of inoperation, tests, calibrations, adjustments, &	N	before per-
	Maintenance		formance
			test and not
			later than
			6/27/02
BAAQMD			
Regulation 6	Particulate Matter and Visible Emissions (12/19/90)		
6-301	Ringelmann No. 1 Limitation	Y	

## IV. Source-specific Applicable Requirements

Table IV – B
Source-specific Applicable Requirements
S-5 Internal Combustion Engines, Landfill Gas fired

Applicable	Regulation Title or	Federally Enforceable	Future Effective
Requirement	Description of Requirement	(Y/N)	Date
6-305	Visible Particles	Y	
6-310	Particle Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
BAAQMD			
Regulation 8,	Organic Compounds - Solid Waste Disposal Sites (10/6/99)		
Rule 34			
8-34-113	Limited Exemption, Inspection and Maintenance	Y	
8-34-113.1	Emission Minimization Requirement	Y	
8-34-113.2	Shutdown Time Limitation	Y	
8-34-113.3	Recordkeeping Requirement	Y	
8-34-114	Limited Exemption, Energy Recovery Device and Emission Control	Y	Expires
	System		7/1/02 (exp.
			date not in
			SIP)
8-34-301	Landfill Gas Collection and Emission Control System Requirements	Y	
8-34-301.1	Continuous Operation	Y	
8-34-301.2	Collection and Control Systems Leak Limitations	Y	
8-34-301.4b	Limits for Other Emission Control Systems	Y	7/1/02
8-34-412	Compliance Demonstration Tests	Y	10/1/02
8-34-413	Performance Test Report	Y	1/1/03
8-34-501	Operating Records	Y	
8-34-501.2	Emission Control System Downtime	Y	
8-34-501.3	Continuous Temperature Records for Enclosed Combustors	Y	7/1/02
8-34-501.4	Testing	Y	
8-34-501.6	Leak Discovery and Repair Records (Permit holder is responsible only	Y	
	for collection system components that are owned by the permit holder)		
8-34-501.10	Gas Flow Rate Records for All Emission Control Systems	Y	7/1/02
8-34-501.12	Records Retention for 5 Years	Y	
8-34-503	Landfill Gas Collection and Emission Control System Leak Testing	Y	
	(Permit holder is responsible only for collection system components that		
	are owned by the permit holder)		
8-34-504	Portable Hydrocarbon Detector	Y	

## IV. Source-specific Applicable Requirements

Table IV – B
Source-specific Applicable Requirements
S-5 Internal Combustion Engines, Landfill Gas fired

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
8-34-507	Continuous Temperature Monitor and Recorded	Y	7/1/02
8-34-508	Gas Flow Meter	Y	7/1/02
SIP			
Regulation 8,	Organic Compounds - Solid Waste Disposal Sites (6/15/94)		
Rule 34			
8-34-113	Exemption, Inspection and Maintenance	Y	
8-34-113.1	Emission Minimization Requirement	Y	
8-34-113.2	Shutdown Time Limitation	$Y^1$	
8-34-113.3	Recordkeeping Requirement	Y	
8-34-114	Limited Exemption, Energy Recovery Device and Emission Control	$Y^1$	
	System		
8-34-301	Landfill Gas Collection and Emission Control System Requirements	Y	
8-34-301.1	Collection and Control Systems Leak Limitations	Y	
8-34-301.4	Continuous Operation	Y	
8-34-501	Operating Records	Y	
8-34-501.2	Emission Control System Downtime	Y	
8-34-501.4	Records of Testing for Compliance with 8-34-111.3 or 301	Y	
8-34-501.6	Records Retention	Y	
8-34-503	Landfill Gas Collection System Testing	Y	
8-34-504	Portable Hydrocarbon Detector	Y	
BAAQMD	Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)		
Regulation 9,			
Rule 1			
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
BAAQMD	Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/99)		
Regulation 9,	, <u> </u>		
Rule 2			
9-2-301	Limitations on Hydrogen Sulfide	N	
BAAQMD	Inorganic Gaseous Pollutants – Nitrogen Oxides and Carbon		
Regulation 9	Monoxide from Stationary Internal Combustion Engines (1/20/93)		
Rule 8			

## IV. Source-specific Applicable Requirements

Table IV – B
Source-specific Applicable Requirements
S-5 Internal Combustion Engines, Landfill Gas fired

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
9-8-302	Emission Limits – Waste Derived Fuel Gas	Y	
9-8-302.1	Lean-Burn Engines: NOx Emission Limit	Y	
9-8-302.3	CO Emission Limit	Y	
40 CFR Part	Standards of Performance for New Stationary Sources – General		
60, Subpart	Provisions (5/4/98)		
A			
60.4(b)	Requires Submission of Requests, Reports, Applications, and Other	Y	
	Correspondence to the Administrator		
60.7	Notification and Record Keeping	Y	
60.8	Performance Tests	Y	
60.11	Compliance with Standards and Maintenance Requirements	Y	
60.11(a)	Compliance determined by performance tests	Y	
60.11(d)	Good air pollution control practice	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.13(a)	Applies to all continuous monitoring systems	Y	
60.13(b)	Monitors shall be installed and operation before performing	Y	
	performance tests		
60.13(e)	Continuous monitors shall operate continuously	Y	
60.13(f)	Monitors shall be installed in proper locations	Y	
60.13(g)	Requires multiple monitors for multiple stacks	Y	
60.14	Modification	Y	
60.15	Reconstruction	Y	
60.19	General Notification and Reporting Requirements	Y	
40 CFR Part	Standards of Performance for New Stationary Sources – Standards of		
60, Subpart	Performance for Municipal Solid Waste Landfills (2/24/99)		
www			
60.752	Reduce NMOC emissions by 98% by weight or reduce NMOC outlet	Y	2/12/02
(b)(2)(iii)(B)	concentration to less than 20 ppmv as hexane at 3% O2, dry basis		
60.752	Operate in accordance with 60.753(e), 60.753(f), 60.755(e), and	Y	2/12/02
(b)(2)(iv)	60.756(b)		

## IV. Source-specific Applicable Requirements

Table IV – B
Source-specific Applicable Requirements
S-5 Internal Combustion Engines, Landfill Gas fired

Applicable	Regulation Title or	Federally Enforceable	Future Effective	
Requirement	Description of Requirement	(Y/N)	Date	
60.753(e)	Vent all collected gases to a control system complying with 60.752(b)(2)(iii) (The permit holder is responsible only for gases routed to its collection and control equipment)	Y	2/12/02	
60.753(f)	Operate the control system at all times when collected gas is routed to the control system	Y	2/12/02	
60.754(d)	Test Methods for Performance Test (Method 18 or 25C)	Y		
60.755(e)	Provisions apply at all times except during startup, shutdown, or malfunction, provided the duration of these shall not exceed 5 days for collection systems or 1 hour for control systems (The permit holder is responsible only for its collection and control equipment)	Y	2/12/02	
60.756(b)	Enclosed combustors shall comply with (b)(1) and (b)(2)	Y		
60.756(b)(1)	Temperature monitor and continuous recorder	Y	before performance test and not later than 6/27/02	
60.756(b)(2)	Device that records flow to or bypass of the control device	Y	2/12/02	
60.757(f)	Submit Annual Reports containing information required by (f)(1), (f)(2), and (f)(3)	Y	8/11/02	
60.757(f)(1)	Value and length of time for exceedance of parameters monitored per 60.756(b) or (e)	Y	8/11/02	
60.757(f)(2)	Description and duration of all periods when gas is diverted from the control device by a by-pass line	Y	8/11/02	
60.757(f)(3)	Description and duration of all periods when control device was not operating for more than 1 hour	Y	8/11/02	
60.758(b)	Control Equipment Records	Y		
60.758(b)(2)	Performance test data for enclosed combustors other than boilers or process heaters (greater than 44 MW heat input)			
60.758(c)	Records of parameters monitored pursuant to 60.756(b) or (e)	Y		
60.758(e)	Records of any exceedance of 60.753(e) or (f)	Y		

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### IV. Source-specific Applicable Requirements

Table IV – B
Source-specific Applicable Requirements
S-5 Internal Combustion Engines, Landfill Gas fired

Applicable Requirement	Regulation Title or  Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD	Description of Requirement	(1/14)	Date
Condition #			
17777			
Part 1	Exclusively on landfill gas (Plant Cumulative Increase)	Y	
Part 2	S-5 should be given priority over all other engines (S-2, S-3 and S-4) (Plant Cumulative Increase)		
Part 5	NO2 ≤ 130 ppmv, dry @ 15% O2 (BACT)	Y	
Part 6	CO ≤ 260 ppmv, dry @ 15% O2 (BACT and Plant Cumulative Increase)	Y	
Part 7 a-f	Annual source test (Regulations 8-34-114, 8-34-301.4, 8-34-412, 9-8-302.1, 9-8-302.2, and 9-8-302.3, 40 CFR 60.752(b)(2)(iii)(B), BACT, and Plant Cumulative Increase)	Y	
Part 8	Total reduced sulfur compounds of the collected landfill gas ≤ 1300 ppmv (dry) (Regulation 9-1-302)	Y	
Part 9	Annual throughput limit (Regulation 2-1-301)	Y	
Part 10 a-e	Recordkeeping for throughput limit (Regulation 2-1-301)	Y	
Part 11	Information for design plans and annual reports (Regulation 1-441)	Y	

<sup>1</sup> 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.

## IV. Source-specific Applicable Requirements

# Table IV Source-specific Applicable Requirements S7 – LANDFILL GAS CONDENSATE STORAGE TANK, 6500 GALLONS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD	Organic Compounds – Miscellaneous Operations (6/15/94)		
Regulation 8,			
Rule 2			
8-2-301	Miscellaneous Operations	Y	
BAAQMD			
Condition #			
18306			
Part 1	Annual condensate throughput limit (Cumulative Increase)	Y	
Part 2	Restriction on materials stored in S-7 (Cumulative Increase)	Y	
Part 3	Limit on toxic compound emissions (Toxic Risk Management Policy)	Y	
Part 4	Record keeping requirements (Cumulative Increase and Regulation 2-6-501)	Y	

### V. SCHEDULE OF COMPLIANCE

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

### VI. PERMIT CONDITIONS

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

The District has provided comments in italicized text following each condition number. These comments describe the rationale behind the proposed condition changes identified in this section by strikeout and underline formatting. All italicized text will be deleted from the final permit conditions.

#### **Condition # 17777**

### For S-2, S-3, S-4, S-5, Internal Combustion Engines, Landfill Gas Fired

- 1. The Internal Combustion Engines (S-2, S-3, S-4, and S-5) shall be fired on landfill gas exclusively. (Basis: Plant Cumulative Increase)
- 2. The operation of S-5 Waukesha Internal Combustion Engine shall be given priority over all other engines (S-2, S-3 and S-4) at all times that a sufficient quantity of landfill gas exists to operate S-5. (Basis: Plant Cumulative Increase)
- 3. Nitrogen Oxide (NO<sub>x</sub>) emissions, from each Internal Combustion Engine (S-2, S-3 and S-4) shall not exceed 210 ppmv, dry basis, corrected to 15% O<sub>2</sub>. (Basis: BACT and Regulation 9-8-302.2)
- 4. Carbon Monoxide (CO) emissions from each Internal Combustion Engine (S-2, S-3 and S-4) shall not exceed 740 ppmv, dry basis, corrected to 15% O<sub>2</sub>. (Basis: BACT and Plant Cumulative Increase)
- 5. Nitrogen Oxide (NO<sub>x</sub>) emissions, from S-5 shall not exceed 130 ppmv, dry basis, corrected to 15% O<sub>2</sub>. (Basis: BACT)
- 6. Carbon Monoxide (CO) emissions from S-5 shall not exceed 260 ppmv, dry basis, corrected to 15% O<sub>2</sub>. (Basis: BACT and Plant Cumulative Increase)

### **Condition # 17777**

### VI. Permit Conditions

### For S-2, S-3, S-4, S-5, Internal Combustion Engines, Landfill Gas Fired

- 7. In order to demonstrate compliance with Parts #3, #4, #5 and #6 above; Regulation 8, Rule 34, Sections 114, 301.4, and 412; Regulation 9, Rule 8, Sections 302.1, 302.2, and 302.3; and 40 CFR 60.752(b)(2)(iii)(B); the Permit Holder shall ensure that a District approved source test is conducted annually on each Internal Combustion Engine (S-2, S-3, S-4, and S-5). The annual source tests shall determine the following:
  - a. landfill gas flow rate to each engine (dry basis);
  - b. concentrations (dry basis) of carbon dioxide (CO<sub>2</sub>), nitrogen (N<sub>2</sub>), oxygen (O<sub>2</sub>), methane (CH<sub>4</sub>), total non-methane organic compounds (NMOC), and total hydrocarbons (THC) in the landfill gas;
  - c. exhaust gas flow rate from each engine (dry basis);
  - d. concentrations (dry basis) of NO<sub>x</sub>, CO, CH<sub>4</sub>, NMOC, THC, and O<sub>2</sub> in the exhaust gas from each engine;
  - e. the CH<sub>4</sub>, NMOC, and THC destruction efficiencies achieved by each engine; and
  - f. the combustion temperature of each engine during the test period.

The first annual source test for each engine shall be conducted by no later than June 27, 2002 or no later than 12 months after the issue date of the MFR Permit, whichever date occurs first. Subsequent source tests for each engine shall be conducted no sooner than 9 months and no later than 12 months after the previous source test. The Source Test Section of the District shall be contacted to obtain their approval of the source test procedures at least 14 days in advance of each source test. They 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: BACT or Plant Cumulative Increase, Regulations 8-34-114, 8-34-301.4, 8-34-412, 9-8-302.1, 9-8-302.2, 9-8-302.3, and 40 CFR 60.752(b)(2)(iii)(B))

### VI. Permit Conditions

## Condition # 17777 For S-2, S-3, S-4, S-5, Internal Combustion Engines, Landfill Gas Fired

- 8. Total reduced sulfur compounds in the collected landfill gas shall be monitored as a surrogate for monitoring sulfur dioxide in the exhaust from the Internal Combustion Engines. The concentration of total reduced sulfur compounds in the collected landfill gas shall not exceed 1300 ppmv (dry), reported as hydrogen sulfide (H<sub>2</sub>S). In order to demonstrate compliance with this Part, the Permit Holder shall measure the total sulfur content in collected landfill gas on a weekly basis using a draeger tube. The landfill gas sample shall be taken from the main landfill gas header. The Permit Holder shall follow the manufacturer's recommended procedures for using the draeger tube and interpreting the results. The Permit Holder shall conduct the first draeger tube test no later than 3 months after the issue date of the MFR Permit and weekly thereafter. After collecting three months of landfill gas sulfur content data, the Permit Holder may reduce the sulfur content testing frequency to a monthly basis. if all tests indicate compliance with the limit specified above. After collecting one year of sulfur content data, the Permit Holder may reduce the sulfur content testing frequency to a quarterly basis, if all tests indicate compliance with the limit specified above. (Basis: Regulation 9-1-302)
- 9. The heat input to each Internal Combustion Engine (S-2, S-3 or S-4) shall not exceed 162 million BTU during any one day. The heat input to S-5 shall not exceed 324 million BTU during any one day. The combined heat input to the four Internal Combustion Engines (S-2, S-3, S-4, and S-5) shall not exceed 295,650 million BTU during any rolling consecutive 12-month period. (Basis: Regulation 2-1-301)
- 10. In order to demonstrate compliance with Parts 8 and 9 above, the Permit Holder shall maintain the following records in a District approved log.
  - a. Daily records of operating hours for each engine (S-2, S-3, S-4, and S-5), summarized on a monthly basis,
  - b. Monthly records of the consumption of landfill gas at S-5 and monthly records of the combined consumption of landfill gas at S-2, S-3 and S-4,
  - c. Monthly records of the average methane content of the landfill gas burned in the engines (S-2, S-3, S-4, and S-5),
  - d. Monthly records of the average high heat value of the landfill gas calculated by multiplying the methane content recorded pursuant to subpart c times the high heat value of methane (1013 BTU/scf), and

### VI. Permit Conditions

### **Condition # 17777**

### For S-2, S-3, S-4, S-5, Internal Combustion Engines, Landfill Gas Fired

e. Monthly records of the heat input to S-5 and monthly records of the combined heat input to S-2, S-3 and S-4, calculated by multiplying the landfill gas consumption recorded pursuant to subpart b times the average high heat value of the landfill gas determined pursuant to subpart d.

Both these records and records of H<sub>2</sub>S data shall be kept on site and made available for District inspection for a period of at least five years from the date on which a record is made. (Basis: Regulation 2-1-301)

11. The permit holder shall supply any information required by BAAQMD Regulation 8-34-408, 8-34-411, EPA Regulations 40 CFR 60.757(c), 40 CFR 60.757(f)(1), (2), and (3) to the permit holder of the Guadalupe Mines Road Landfill and to the District within 30 days of a request from said landfill. (Basis: Regulation 1-441)

### VI. Permit Conditions

### Condition # 18306 For S-7, Landfill Gas Condensate Storage Tank

- 1. Total throughput of landfill gas condensate at Landfill Gas Condensate Storage Tank (S-7) shall not exceed 90,000 gallons during any consecutive 12-month period. (Basis: Cumulative Increase)
- 2. Only landfill gas condensate shall be stored in tank S-7. (Basis: Cumulative Increase)
- 3. The storage of landfill gas condensate at S-7 shall not result in emissions exceeding any risk screening trigger level, as specified in Table 2-1-316 of Regulation 2, Rule 1. (Basis: Toxic Risk Management Policy)
- 4. To demonstrate compliance with above conditions, type of liquid stored and the monthly throughput shall be maintained in a District approved log. These records shall be kept on site and made available for District inspection for a period of at least 5 years from the date on which a record is made. (Basis: Cumulative Increase and Regulation 2-6-501) All records shall be retained on-site for a period of 5 years from the date of entry and made available for inspection by District staff upon request. These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District Regulations.

## VII. APPLICABLE LIMITS AND COMPLIANCE MONITORING REQUIREMENTS

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

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-2, S-3 & S-4 Internal Combustion Engines, Landfill Gas fired

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD 6-301	Y		Ringelmann No. 1		N	
FP	BAAQMD 6-310	Y		0.15 grains/dscf		N	
TOC (Total Organic Compounds Plus Methane)	BAAQMD 8-34-301.2	Y		1000 ppmv as methane (component leak limit)	BAAQMD 8-34-501.6 and 8-34-503	P/Q	Quarterly Inspection and Records
TOC	SIP 8-34-301.1	Y		1000 ppmv as methane (component leak limit)	SIP 8-34-503	P/Q	Quarterly Inspection
TOC	BAAQMD 8-34-114	Y	Expires 7/1/02	90% removal by weight	BAAQMD Condition # 17777, Part 7e	P/A	Annual Source Test
TOC	SIP 8-34-114	Y		90% removal by weight	BAAQMD Condition # 17777, Part 7e	P/A	Annual Source Test

## VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-2, S-3 & S-4 Internal Combustion Engines, Landfill Gas Fired

			Future		Monitoring	Monitoring	
Type of	Citation of	FE	Effective		Requirement	Frequency	Monitoring
Limit	Limit	Y/N	Date	Limit	Citation	(P/C/N)	Type
Non-	BAAQMD	Y	7/1/02	98% removal by weight	BAAQMD	P/A	Annual
Methane	8-34-301.4b			OR	Condition #		Source Tests
Organic				< 120 ppmv dry @ 3% O <sub>2</sub> ,	17777,		
Com-				expressed as methane	Part 7 d-e		
pounds							
(NMOC)							
NMOC	40 CFR	Y	2/12/02	98% removal by weight	40 CFR 60.8	P/I	Initial
	60.752(b)			OR	and 60.752(b)		Source Test
	(2)(iii)(B)			< 20 ppmv dry @ 3% O <sub>2</sub> ,	(2)(iii)(B)		and Records
				expressed as hexane	and		
					60.758(b)(2)		
$SO_2$	BAAQMD	Y		Property Line Ground		N	
	9-1-301			Level Limits			
				$\leq$ 0.5 ppm for 3 minutes,			
				$\leq$ 0.25 ppm for 60 minutes,			
				and ≤0.05 ppm for 24 hours			
$SO_2$	BAAQMD	Y		$\leq$ 300 ppm (dry)	BAAQMD	P/W, M, or	Sulfur
	9-1-302				Condition #	Q (Monthly	Analysis of
					17777, Part 8	if 3 months	landfill gas
						data < 1300	only
						ppm,	
						Quarterly if	
						1 year of	
						data < 1300	
						ppm)	
$H_2S$	BAAQMD	N		Property Line ground level		N	
	9-2-301			limits $\leq 0.06$ ppm			
				Averaged over 3 minutes			
				and $\leq 0.03$ ppm			
				Averaged over 60 minutes			

## VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-2, S-3 & S-4 Internal Combustion Engines, Landfill Gas Fired

			Future		Monitoring	Monitoring	
Type of	Citation of	FE	Effective		Requirement	Frequency	Monitoring
Limit	Limit	Y/N	Date	Limit	Citation	(P/C/N)	Type
Total	BAAQMD	Y		≤ 1300 ppmv (dry)	BAAQMD	P/W, M, or	Sulfur
Sulfur	Condition #				Condition #	Q (Monthly	Analysis of
Content	17777,				17777, Part 8	if 3 months	landfill gas
in	Part 8					data < 1300	only
Landfill						ppmv (dry),	
Gas						Quarterly if	
						1 year of	
						data < 1300	
						ppmv (dry))	
$NO_x$	BAAQMD	Y		Waste Fuel Gas, Rich-Burn	BAAQMD	P/A	Annual
	9-8-302.2			210 ppmv dry @ 15% O <sub>2</sub>	Condition #		Source Test
	and				17777,		
	BAAQMD				Part 7d		
	Condition #						
	17777,						
	Part 3						
CO	BAAQMD	Y		Waste Fuel Gas:	BAAQMD	P/A	Annual
	9-8-302.3			2000 ppmv dry @ 15% O <sub>2</sub>	Condition #		Source Test
					17777,		
					Part 7d		
CO	BAAQMD	Y		740 ppmv dry @ 15% O <sub>2</sub>	BAAQMD	P/A	Annual
	Condition #				Condition #		Source Test
	17777,				17777,		
	Part 4				Part 7d		
Emission	BAAQMD	Y		240 hours/year	BAAQMD	P/D	Records
Control	8-34-113.2				8-34-501.2		
System							
Shutdown							
Time							
Emission	SIP	Y		12 hours/calendar month	SIP	P/D	Records
Control	8-34-113.2				8-34-501.2		
System							
Shutdown							
Time							

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## VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-2, S-3 & S-4 Internal Combustion Engines, Landfill Gas Fired

Type of	Citation of	FE	Future Effective		Monitoring Requirement	Monitoring Frequency	Monitoring
Limit	Limit	Y/N	Date	Limit	Citation	(P/C/N)	Type
Emission	40 CFR	Y	2/12/02	$\leq$ 1 hour per event	40 CFR	P/D	Records of
Control	60.755(e)				60.7(b),		occurrence
System					60.757(f)(2)		and duration
Startup					and (f)(3),		
Shutdown					and 60.758(e)		
or							
Malfunc-							
tion							
Temper-		Y	7/1/02	Temperature limit will be	BAAQMD	С	Temperature
ature of				established during	8-34-501.3		sensor and
Combus-				performance test	and 8-34-507		continuous
tion Zone					(effective		recorder;
					7/1/02)		effective
							7/1/02
Combus-	40 CFR	Y	8/11/02	3-Hour Average	60 CFR	С	Temperature
tion	60.758(c)			Temperature No Less Than	60.756(b)(1)		sensor and
Temper-	(1)(i)			28 °C below Average	and 60.758(c)		continuous
ature				Temperature Recorded			recorder;
				During Most Recent			effective
				Complying Performance			before per-
				Test			formance
							test and not
							later than
							6/27/02
Gas Flow	BAAQMD	Y	7/1/02	Vent all collected gases to a	BAAQMD	С	Gas Flow
	8-34-301			properly operating control	8-34-501.10		Meter and
	and 301.1;			system and operate control	and 508		Recorder
				system continuously.	(effective		(every 15
					7/1/02)		minutes);
							effective
							7/1/02

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## VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-2, S-3 & S-4 Internal Combustion Engines, Landfill Gas Fired

			Future		Monitoring	Monitoring	
Type of	Citation of	FE	Effective		Requirement	Frequency	Monitoring
Limit	Limit	Y/N	Date	Limit	Citation	(P/C/N)	Type
Gas Flow	SIP	Y		Vent all collected gases to a	SIP	P/D	Operating
	8-34-301			properly operating control	8-34-501.1		Records
	and 301.4			system and operate control			
				system continuously.			
Gas Flow	40 CFR	Y	2/12/02	Vent all collected gases to a	40 CFR	C or P/M	Gas Flow
	60.753(a)			properly operating control	60.756(b)(2)		Meter and
	and (e)			system and operate control	(i or ii) and		Recorder
				system at all times when	60.758(c)(2)		(every 15
				gas is vented to it			minutes) or
							Monthly
							Inspection
							of Bypass
							Valve and
							Lock and
							Records
Periods of	BAAQMD	Y	before	15 consecutive	BAAQMD	P/D	Records of
Inopera-	1-523.2		per-	days/incident and	1-523.4		occurrence
tion for			formance	30 calendar days/12 month			and duration
Para-			test and	period			
metric			not later				
Monitors			than				
			6/27/02				
Contin-	40 CFR	Y	before	Requires Continuous	40 CFR	P/D	Records of
uous	60.13(e)		per-	Operation except for	60.7(b)		occurrence
Monitors			formance	breakdowns, repairs,			and duration
			test and	calibration, and required			
			not later	span adjustments			
			than				
			6/27/02				
Heat	BAAQMD	Y		162 MM BTU/day/engine	BAAQMD	P/D,M	Records
Input	Condition #			and 177,390 MM BTU per	Condition #		
	17777,			12-month period for all	17777,		
	Part 9			engines combined	Part 10 a-e		

## VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – B

Applicable Limits and Compliance Monitoring Requirements
S-5 Internal Combustion Engine, Landfill Gas fired

Type of	Citation of	FE	Future Effective		Monitoring Requirement	Monitoring Frequency	Monitoring
Limit	Limit	Y/N	Date	Limit	Citation	(P/C/N)	Type
Opacity	BAAQMD	Y		Ringelmann No. 1		N	
	6-301						
FP	BAAQMD	Y		0.15 grains/dscf		N	
	6-310						
TOC	BAAQMD	Y		1000 ppmv as methane	BAAQMD	P/Q	Quarterly
(Total	8-34-301.2			(component leak limit)	8-34-501.6		Inspection
Organic					and 8-34-503		and Records
Com-							
pounds							
Plus							
Methane)							
TOC	SIP	Y		1000 ppmv as methane	SIP	P/Q	Quarterly
	8-34-301.1			(component leak limit)	8-34-503		Inspection
TOC	BAAQMD	Y	Expires	90% removal by weight	BAAQMD	P/A	Annual
	8-34-114		7/1/02		Condition #		Source Test
					17777,		
					Part 7e		
TOC	SIP	Y		90% removal by weight	BAAQMD	P/A	Annual
	8-34-114				Condition #		Source Test
					17777,		
					Part 7e		
Non-	BAAQMD	Y	7/1/02	98% removal by weight	BAAQMD	P/A	Annual
Methane	8-34-301.4b			OR	Condition #		Source Tests
Organic				< 120 ppmv dry @ 3% O <sub>2</sub> ,	17777,		
Com-				expressed as methane	Part 7 d-e		
pounds				•			
(NMOC)							
NMOC	40 CFR	Y	2/12/02	98% removal by weight	40 CFR 60.8	P/I	Initial
	60.752(b)			OR	and 60.752(b)		Source Test
	(2)(iii)(B)			< 20 ppmv dry @ 3% O <sub>2</sub> ,	(2)(iii)(B)		and Records
				expressed as hexane	and		
				1	60.758(b)(2)		

## VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – B

Applicable Limits and Compliance Monitoring Requirements
S-5 INTERNAL COMBUSTION ENGINE, LANDFILL GAS FIRED

			Future		Monitoring	Monitoring	
Type of	Citation of	FE	Effective		Requirement	Frequency	Monitoring
Limit	Limit	Y/N	Date	Limit	Citation	(P/C/N)	Type
$SO_2$	BAAQMD	Y		Property Line Ground		N	
	9-1-301			Level Limits			
				$\leq$ 0.5 ppm for 3 minutes,			
				$\leq$ 0.25 ppm for 60 minutes,			
				and ≤0.05 ppm for 24 hours			
$SO_2$	BAAQMD	Y		$\leq$ 300 ppm (dry)	BAAQMD	P/W, M, or	Sulfur
	9-1-302				Condition #	Q (Monthly	Analysis of
					17777, Part 8	if 3 months	landfill gas
						data < 1300	only
						ppm,	
						Quarterly if	
						1 year of	
						data < 1300	
						ppm)	
$H_2S$	BAAQMD	N		Property Line ground level		N	
	9-2-301			limits $\leq 0.06$ ppm			
				Averaged over 3 minutes			
				and $\leq 0.03$ ppm			
				Averaged over 60 minutes			
Total	BAAQMD	Y		$\leq$ 1300 ppmv (dry)	BAAQMD	P/W, M, or	Sulfur
Sulfur	Condition #				Condition #	Q (Monthly	Analysis of
Content	17777,				17777, Part 8	if 3 months	landfill gas
in	Part 8					data < 1300	only
Landfill						ppmv (dry),	
Gas						Quarterly if	
						1 year of	
						data < 1300	
						ppmv (dry))	
$NO_x$	BAAQMD	Y		Waste Fuel Gas, Lean-Burn	BAAQMD	P/A	Annual
	9-8-302.1			140 ppmv dry @ 15% O <sub>2</sub>	9-8-302.1		Source Test

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## VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – B

Applicable Limits and Compliance Monitoring Requirements
S-5 INTERNAL COMBUSTION ENGINE, LANDFILL GAS FIRED

Type of	Citation of	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NO <sub>x</sub>	BAAQMD Condition # 17777, Part 5	Y		Waste Fuel Gas, Lean-Burn 130 ppmv dry @ 15% O <sub>2</sub>	BAAQMD Condition # 17777, Part 7d	P/A	Annual Source Test
СО	BAAQMD 9-8-302.3	Y		Waste Fuel Gas: 2000 ppmv dry @ 15% O <sub>2</sub>	BAAQMD Condition # 17777, Part 7d	P/A	Annual Source Test
СО	BAAQMD Condition # 17777, Part 6	Y		260 ppmv dry @ 15% O <sub>2</sub>	BAAQMD Condition # 17777, Part 7d	P/A	Annual Source Test
Emission Control System Shutdown Time	BAAQMD 8-34-113.2	Y		240 hours/year	BAAQMD 8-34-501.2	P/D	Records
Emission Control System Shutdown Time	SIP 8-34-113.2	Y		12 hours/calendar month	SIP 8-34-501.2	P/D	Records
Emission Control System Startup Shutdown or Malfunc- tion	40 CFR 60.755(e)	Y	2/12/02	≤ 1 hour per event	40 CFR 60.7(b), 60.757(f)(2) and (f)(3), and 60.758(e)	P/D	Records of occurrence and duration

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## VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S-5 Internal Combustion Engine, Landfill Gas fired

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Temper- ature of Combus- tion Zone		Y	7/1/02	Temperature limit will be established during performance test	BAAQMD 8-34-501.3 and 8-34-507 (effective	C	Temperature sensor and continuous recorder;
					7/1/02)		effective 7/1/02
Combustion Temperature	40 CFR 60.758(c) (1)(i)	Y	8/11/02	3-Hour Average Temperature No Less Than 28 °C below Average Temperature Recorded During Most Recent Complying Performance Test	60 CFR 60.756(b)(1) and 60.758(c)	С	Temperature sensor and continuous recorder; effective before performance test and not later than 6/27/02
Gas Flow	BAAQMD 8-34-301 and 301.2;	Y	7/1/02	Vent all collected gases to a properly operating control system and operate control system continuously.	BAAQMD 8-34-501.10 and 508 (effective 7/1/02)	С	Gas Flow Meter and Recorder (every 15 minutes); effective 7/1/02
Gas Flow	SIP 8-34-301 and 301.4	Y		Vent all collected gases to a properly operating control system and operate control system continuously.	SIP 8-34-501.1	P/D	Operating Records

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## VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – B

Applicable Limits and Compliance Monitoring Requirements
S-5 INTERNAL COMBUSTION ENGINE, LANDFILL GAS FIRED

			Future		Monitoring	Monitoring	
Type of	Citation of	FE	Effective		Requirement	Frequency	Monitoring
Limit	Limit	Y/N	Date	Limit	Citation	(P/C/N)	Type
Gas Flow	40 CFR	Y	2/12/02	Vent all collected gases to a	40 CFR	C or P/M	Gas Flow
	60.753(a)			properly operating control	60.756(b)(2)		Meter and
	and (e)			system and operate control	(i or ii) and		Recorder
				system at all times when	60.758(c)(2)		(every 15
				gas is vented to it			minutes) or
							Monthly
							Inspection
							of Bypass
							Valve and
							Lock and
							Records
Periods of	BAAQMD	Y	before	15 consecutive	BAAQMD	P/D	Records of
Inopera-	1-523.2		per-	days/incident and	1-523.4		occurrence
tion for			formance	30 calendar days/12 month			and duration
Para-			test and	period			
metric			not later				
Monitors			than				
			6/27/02				
Contin-	40 CFR	Y	before	Requires Continuous	40 CFR	P/D	Records of
uous	60.13(e)		per-	Operation except for	60.7(b)		occurrence
Monitors			formance	breakdowns, repairs,			and duration
			test and	calibration, and required			
			not later	span adjustments			
			than				
			6/27/02				
Heat	BAAQMD	Y		324 MM BTU per day	BAAQMD	P/D,M	Records
Input	Condition #			and 118,260 MM BTU	Condition #		
	17777,			per 12-month period	17777,		
	Part 9				Part 10 a-e		

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## VII. Applicable Limits and Compliance Monitoring Requirements

Table VII
Applicable Limits and Compliance Monitoring Requirements
S7 - LANDFILL GAS CONDENSATE STORAGE TANK, 6500 GALLONS

			Future		Monitoring	Monitoring	
Type of	Citation of	FE	Effective		Requirement	Frequency	Monitoring
Limit	Limit	Y/N	Date	Limit	Citation	(P/C/N)	Type
VOC	BAAQMD	Y		15 pounds/day or	BAAQMD	P/D	Records
	8-2-301			300 ppm, dry basis	Condition #		
					18306,		
					Part 4		
Through-	BAAQMD	Y		90,000 gallons	BAAQMD	P/D	Records
put Limit	Condition #			of landfill gas condensate	Condition #		
	18306,			per 12-month period	18306,		
	Part 1				Part 4		

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## VIII. TEST METHODS

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

Table VIII
Test Methods

Applicable		
Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions
6-301		
BAAQMD	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulate
6-310		
BAAQMD	Energy Recovery Device and	Manual of Procedures, Volume IV, ST-7, Organic Compounds
8-34-114	Emission Control System	and ST-14, Oxygen, Continuous Sampling; or
		EPA Reference Method 18, 25, 25A, or 25C
BAAQMD	Collection and Control System	EPA Reference Method 21, Determination of Volatile Organic
8-34-301.2	Leak Limitations	Compound Leaks
BAAQMD	Limits for Other Emission	Manual of Procedures, Volume IV, ST-7, Organic Compounds
8-34-301.4	Control Systems	and ST-14, Oxygen, Continuous Sampling; or
		EPA Reference Method 18, 25, 25A, or 25C
SIP	Collection and Control Systems	EPA Reference Method 21, Determination of Volatile Organic
8-34-301.1	Leak Limitations	Compound Leaks
SIP	Energy Recovery Device or	Manual of Procedures, Volume IV, ST-7, Organic Compounds; or
8-34-301.3 1	Emission Control System Limit	EPA Reference Method 25 or 25A
BAAQMD	General Emission Limitation	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide,
9-1-302		Continuous Sampling, or
		ST-19B, Total Sulfur Oxides, Integrated Sample
BAAQMD	Waste Derived Fuel Gas NOx	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen,
9-8-302.1	Limits for Lean Burn Engines	Continuous Sampling and
		ST-14, Oxygen, Continuous Sampling
BAAQMD	Waste Derived Fuel Gas NOx	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen,
9-8-302.2	Limits for Rich Burn Engines	Continuous Sampling and
		ST-14, Oxygen, Continuous Sampling
BAAQMD	Waste Derived Fuel Gas CO	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide,
9-8-302.3	Limits	Continuous Sampling and
		ST-14, Oxygen, Continuous Sampling

## VIII. Test Methods

## Table VIII Test Methods

Applicable		
Requirement	Description of Requirement	Acceptable Test Methods
40 CFR 60.8	Performance Tests	EPA Reference Method 18, Measurement of Gaseous Organic
		Compound Emissions by Gas Chromatography, Method 25,
		Determination of Total Gaseous Nonmethane Organic Emissions
		as Carbon, Method 25A, Determination of Total Gaseous Organic
		Concentration Using a Flame Ionization Analyzer, or Method
		25C, Determination of Nonmethane Organic Compounds
		(NMOC) in MSW Landfill Gases
40 CFR	NMOC Destruction Efficiency	EPA Reference Method 18, Measurement of Gaseous Organic
60.752	and Outlet Concentration Limits	Compound Emissions by Gas Chromatography, Method 25,
(b)(2)(iii)(B)		Determination of Total Gaseous Nonmethane Organic Emissions
		as Carbon, Method 25A, Determination of Total Gaseous Organic
		Concentration Using a Flame Ionization Analyzer, or Method
		25C, Determination of Nonmethane Organic Compounds
		(NMOC) in MSW Landfill Gases
BAAQMD		
Condition #		
17777		
Parts 3 & 5	NOx Limit	Manual of Procedures, Volume IV, Oxides of Nitrogen,
		Continuous Sampling, and ST-14, Oxygen, Continuous Sampling
Parts 4 & 6	CO Limit	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide,
		Continuous Sampling, and ST-14, Oxygen, Continuous Sampling
Part 8	Limit for Total Reduced Sulfur	Draeger Tube: used in accordance with manufacturer's
	Compounds in Landfill Gas	recommended procedures
Part 9	Heat Input Limit	Gas Flow Meter: used in accordance with manufacturer's
		recommended procedures; Methane Content: determined by
		Manual of Procedures, Volume IV, ST-7, Organic Compounds or
		EPA Reference Method 18, 25, 25A, or 25C; and Calculation
		Procedure identified in BAAQMD Condition # 17777, Part 10 d

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## IX. PERMIT SHIELD

Not applicable.

### X. REVISION HISTORY

Initial Title V Permit Issuance:

November 30, 2001

Minor Revision:

July 15, 2002

- Correct an erroneous future effective date for continuous temperature monitoring at landfill gas fired IC engines in Tables IV-A, IV-B, VII-A, and VII-B
- Correct the corresponding future effective dates for parametric monitoring requirements in Tables IV-A, IV-B, VII-A, and VII-B
- Correct the basis for the annual source testing requirement for landfill gas fired IC engines in Permit Condition # 17777, Part 7
- Correct the landfill name referenced in Permit Condition # 17777, Part 11

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- Clarify in Tables VII-A and VII-B that the future IC engine temperature limits will be determined during the first performance test after permit issuance rather than during the District's review of the collection and control system design plan
- Correct an erroneous future effective date for the IC engine temperature limits in Tables VII-A and VII-B

Facility Name: Gas Recovery Systems, Inc.

Permit for Facility #: B1669

### XI. GLOSSARY

#### **ACT**

Federal Clean Air Act

#### **BAAQMD**

Bay Area Air Quality Management District

### **BACT**

Best Available Control Technology

#### CAA

The federal Clean Air Act

### **CAAQS**

California Ambient Air Quality Standards

### **CEQA**

California Environmental Quality Act

#### **CFR**

The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

#### CO

Carbon Monoxide

#### **Cumulative Increase**

The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Used to determine whether threshold-based requirements are triggered.

#### **District**

The Bay Area Air Quality Management District

### **EPA**

The federal Environmental Protection Agency.

#### Excluded

Not subject to any District regulations.

## X. Glossary

### Federally Enforceable, FE

All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60, (NSPS), Part 61, (NESHAPs), Part 63 (HAP), and Part 72 (Permits Regulation, Acid Rain), including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

#### FP

Filterable Particulate as measured by BAAQMD Method ST-15, Particulate.

#### **HAP**

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

### **Major Facility**

A facility with potential emissions of: (1) at least 100 tons per year of regulated air pollutants, (2) at least 10 tons per year of any single hazardous air pollutant, and/or (3) at least 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity of hazardous air pollutants as determined by the EPA administrator.

#### MFR

Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Federal Clean Air Act and implemented by District Regulation 2, Rule 6.

#### MOP

The District's Manual of Procedures.

#### **NAAOS**

National Ambient Air Quality Standards

### **NESHAPS**

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

#### **NMHC**

Non-methane Hydrocarbons

#### NMOC

Non-methane Organic Compounds (same as NMHC)

#### **NO**x

Oxides of nitrogen.

#### **NSPS**

## X. Glossary

Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Federal Clean Air Act, and implemented by 40 CFR Part 60 and District Regulation 10.

#### NSR

New Source Review. A federal program for pre-construction review and permitting of new and modified sources of pollutants for which criteria have been established in accordance with Section 108 of the Federal Clean Air Act. Mandated by Title I of the Federal Clean Air Act and implemented by 40 CFR Parts 51 and 52 and District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

#### **Offset Requirement**

A New Source Review requirement to provide federally enforceable emission offsets for the emissions from a new or modified source. Applies to emissions of POC, NOx, PM10, and SO2.

#### **Phase II Acid Rain Facility**

A facility that generates electricity for sale through fossil-fuel combustion and is not exempted by 40 CFR 72 from Titles IV and V of the Clean Air Act.

#### **POC**

Precursor Organic Compounds

#### **PM**

Particulate Matter

#### **PM10**

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

#### PSD

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

#### SIP

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

## X. Glossary

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

Sulfur dioxide

#### THC

Total Hydrocarbons include all non-methane hydrocarbons plus methane and are the same as TOC.

### Title V

Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

### TOC

Total Organic Compounds include all non-methane organic compounds plus methane and are the same as THC.

### **TRMP**

Toxic Risk Management Plan

### **TSP**

**Total Suspended Particulate** 

### **VOC**

Volatile Organic Compounds

### **Units of Measure:**

bhp	=	brake-horsepower
btu	=	British Thermal Unit
cfm	=	cubic feet per minute
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
$m^2$	=	square meter
min	=	minute
mm	=	million
ppmv	=	parts per million, by volume

# X. Glossary

ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scfm	=	standard cubic feet per minute
yr	=	year

## XII. APPLICABLE STATE IMPLEMENTATION PLAN

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

http://yosemite1.epa.gov/r9/r9sips.nsf/California?ReadForm&Start=1&Count=30&Expand=3.1

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