Bay Area Air Quality Management District

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

Proposed

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	**Facility Contact**
Alan J. Purves, COO	Matthew Nourot, Environmental Manager
(925) 461-4400	(925) 606-3700

Type of Facility: Landfill Gas
Primary SIC: 4911
Product: Electrical Power

BAAQMD Permit Division Contact:
Hon Man

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

_____ _____

Ellen Garvey, Executive Officer/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 [ ] and expires on [when issued, enter 5th anniversary of issue date]. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than [when issued, enter date 6 months prior to permit expiration date] and no earlier than [when issued, enter date 12 months prior to expiration date]. **If a complete application for renewal has not been submitted in accordance with this deadlines, the facility may not operate after** [when issued, enter 5th anniversary of issue date]**.** (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)

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 re-issuance, or termination, or the filing of a notification of planned changes or anticipated non-compliance does not stay the applicability of any permit condition. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
6. This permit does not convey any property rights of any sort, or any exclusive privilege. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
7. The permit holder shall supply within 30 days any information that the District requests in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. (Regulation 1-441, Regulation 2-6-409.4 & 501; MOP Volume II, Part 3, §4.11)
8. Any records required to be maintained pursuant to this permit 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

I. Standard Conditions

1. The permit holder must provide any information, records, and reports requested or specified by the APCO. (Regulation 1-441, Regulation 2-6-409.4)

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

F. Monitoring Reports

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

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

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

G. Compliance Certification

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

I. Standard Conditions

Protection Agency at the following address:

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

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

H. Emergency Provisions

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

I. Severability

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

J. Miscellaneous Conditions

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

II. EQUIPMENT

Table II A - Permitted Sources

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

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

Table II B - Abatement Devices

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

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 included in Appendix A of this permit if the SIP requirement is different from the current BAAQMD requirement.

NOTE:

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

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (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

III. Generally Applicable Requirements

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (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

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 included in Appendix A of this permit if the SIP requirements are different from the current BAAQMD requirements. 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	N	2/12/02
1-523.1	Reporting requirement for periods of inoperation > 24 hours	N	2/12/02
1-523.2	Limit on duration of inoperation	N	2/12/02
1-523.3	Reporting requirement for violations of any applicable limits	N	2/12/02
1-523.4	Records of inoperation, tests, calibrations, adjustments, & Maintenance	N	2/12/02
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	

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 Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 8, Rule 34	**Organic Compounds - Solid Waste Disposal Sites (10/6/99)**		
8-34-113	Limited Exemption, Inspection and Maintenance	N	
8-34-113.1	Emission Minimization Requirement	Y	
8-34-113.2	Shutdown Time Limitation	N	
8-34-113.3	Recordkeeping Requirement	Y	
8-34-114	Limited Exemption, Energy Recovery Device and Emission Control System	Y	Expires 7/1/02 (exp. date not FE)
8-34-301	Landfill Gas Collection and Emission Control System Requirements	N	
8-34-301.1	Continuous Operation	N	
8-34-301.2	Collection and Control Systems Leak Limitations	N	
8-34-301.4b	Limits for Other Emission Control Systems	N	7/1/02
8-34-408	Collection and Control System Design Plans	N	
8-34-411	Annual Report	N	1/1/03
8-34-412	Compliance Demonstration Tests	N	10/1/02
8-34-413	Performance Test Report	N	1/1/03
8-34-501	Operating Records	N	
8-34-501.2	Emission Control System Downtime	N	
8-34-501.3	Continuous Temperature Records for Enclosed Combustors	N	7/1/02
8-34-501.4	Testing	N	
8-34-501.6	Leak Discovery and Repair Records	N	
8-34-501.10	Gas Flow Rate Records for All Emission Control Systems	N	7/1/02
8-34-501.12	Records Retention for 5 Years	N	
8-34-503	Landfill Gas Collection and Emission Control System Leak Testing	Y	
8-34-504	Portable Hydrocarbon Detector	Y	
8-34-507	Continuous Temperature Monitor and Recorded	N	7/1/02
8-34-508	Gas Flow Meter	N	7/1/02

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 Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
SIP Regulation 8, Rule 34	**Organic Compounds - Solid Waste Disposal Sites (6/15/94)**		
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 System	Y[1]	
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 Regulation 9, Rule 1	**Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)**		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
BAAQMD Regulation 9, Rule 2	**Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/99)**		
9-2-301	Limitations on Hydrogen Sulfide	N	
BAAQMD Regulation 9 Rule 8	**Inorganic Gaseous Pollutants – Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines (1/20/93)**		
9-8-302	Emission Limits – Waste Derived Fuel Gas	Y	
9-8-302.2	Rich-Burn Engines: NOx Emission Limit	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

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
9-8-302.3	CO Emission Limit	Y	
40 CFR Part 60, Subpart A	**Standards of Performance for New Stationary Sources – General Provisions (5/4/98)**		
60.4(b)	Requires Submission of Requests, Reports, Applications, and Other Correspondence to the Administrator	Y	
60.7	Notification and Record Keeping	Y	
60.8	Performance Tests	Y	
60.11	Compliance with Standards and Maintenance Requirements	Y	
60.11(a)	Compliance determined by performance tests	Y	
60.11(d)	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 performance tests	Y	
60.13(e)	Continuous monitors shall operate continuously	Y	
60.13(f)	Monitors shall be installed in proper locations	Y	
60.13(g)	Requires multiple monitors for multiple stacks	Y	
60.14	Modification	Y	
60.15	Reconstruction	Y	
60.19	General Notification and Reporting Requirements	Y	
40 CFR Part 60, Subpart WWW	**Standards of Performance for New Stationary Sources – Standards of Performance for Municipal Solid Waste Landfills (2/24/99)**		
60.752	Standards for Air Emissions from Municipal Solid Waste Landfills	Y	
60.752(b)	Comply with paragraph (b)(2) or calculate NMOC emission rate	Y	
60.752(b)(2)	Comply with all requirements in sections (b)(2)(i through iv)	Y	
60.752 (b)(2)(i)	Submit a collection and control system design plan	Y	
60.752 (b)(2)(ii)	Install a collection and control system	Y	2/12/02

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 Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.752 (b)(2)(iii)	Route collected gases to a control system	Y	2/12/02
60.752 (b)(2)(iii)(B)	Reduce NMOC emissions by 98% by weight or reduce NMOC outlet concentration to less than 20 ppmv as hexane at 3% O2, dry basis	Y	2/12/02
60.752 (b)(2)(iv)	Operate in accordance with 60.753, 60.755, and 60.756	Y	2/12/02
60.753	Operational Standards for Collection and Control Systems	Y	
60.753(e)	Vent all collected gases to a control system complying with 60.752(b)(2)(iii)	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	Test Methods and Procedures	Y	
60.754(d)	Test Methods for Performance Test (Method 18 or 25C)	Y	
60.755	Compliance Provisions	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	Y	2/12/02
60.756	Monitoring of Operations	Y	
60.756(b)	Enclosed combustors shall comply with (b)(1) and (b)(2)	Y	2/12/02
60.756(b)(1)	Temperature monitor and continuous recorder	Y	2/12/02
60.756(b)(2)	Device that records flow to or bypass of the control device	Y	2/12/02
60.756(e)	Procedures for requesting alternative monitoring parameters	Y	
60.757	Reporting Requirements	Y	
60.757(c)	Submit a Collection and Control System Design Plan	Y	
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	Y	8/11/02

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 Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
	was not operating for more than 1 hour		
60.758	Recordkeeping Requirements	Y	
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 (BACT and Regulation 9-8-302.2)	Y	
Part 4	CO from each engine ≤ 740 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, 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	

1 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.

Table IV – B
Source-specific Applicable Requirements
S-5 INTERNAL COMBUSTION ENGINES, LANDFILL GAS FIRED

IV. Source-specific Applicable Requirements

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	N	2/12/02
1-523.1	Reporting requirement for periods of inoperation > 24 hours	N	2/12/02
1-523.2	Limit on duration of inoperation	N	2/12/02
1-523.3	Reporting requirement for violations of any applicable limits	N	2/12/02
1-523.4	Records of inoperation, tests, calibrations, adjustments, & Maintenance	N	2/12/02
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, Rule 34	**Organic Compounds - Solid Waste Disposal Sites (10/6/99)**		
8-34-113	Limited Exemption, Inspection and Maintenance	N	
8-34-113.1	Emission Minimization Requirement	Y	
8-34-113.2	Shutdown Time Limitation	N	
8-34-113.3	Recordkeeping Requirement	Y	
8-34-114	Limited Exemption, Energy Recovery Device and Emission Control System	Y	Expires 7/1/02 (exp. date not FE)
8-34-301	Landfill Gas Collection and Emission Control System Requirements	N	
8-34-301.1	Continuous Operation	N	
8-34-301.2	Collection and Control Systems Leak Limitations	N	
8-34-301.4b	Limits for Other Emission Control Systems	N	7/1/02
8-34-408	Collection and Control System Design Plans	N	
8-34-411	Annual Report	N	1/1/03
8-34-412	Compliance Demonstration Tests	N	10/1/02
8-34-413	Performance Test Report	N	1/1/03
8-34-501	Operating Records	N	
8-34-501.2	Emission Control System Downtime	N	

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
8-34-501.3	Continuous Temperature Records for Enclosed Combustors	N	7/1/02
8-34-501.4	Testing	N	
8-34-501.6	Leak Discovery and Repair Records	N	
8-34-501.10	Gas Flow Rate Records for All Emission Control Systems	N	7/1/02
8-34-501.12	Records Retention for 5 Years	N	
8-34-503	Landfill Gas Collection and Emission Control System Leak Testing	Y	
8-34-504	Portable Hydrocarbon Detector	Y	
8-34-507	Continuous Temperature Monitor and Recorded	N	7/1/02
8-34-508	Gas Flow Meter	N	7/1/02
SIP Regulation 8, Rule 34	**Organic Compounds - Solid Waste Disposal Sites (6/15/94)**		
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 System	Y[1]	
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 Regulation 9, Rule 1	**Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)**		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	

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 Regulation 9, Rule 2	**Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/99)**		
9-2-301	Limitations on Hydrogen Sulfide	N	
BAAQMD Regulation 9 Rule 8	**Inorganic Gaseous Pollutants – Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines (1/20/93)**		
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 60, Subpart A	**Standards of Performance for New Stationary Sources – General Provisions (5/4/98)**		
60.4(b)	Requires Submission of Requests, Reports, Applications, and Other Correspondence to the Administrator	Y	
60.7	Notification and Record Keeping	Y	
60.8	Performance Tests	Y	
60.11	Compliance with Standards and Maintenance Requirements	Y	
60.11(a)	Compliance determined by performance tests	Y	
60.11(d)	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 performance tests	Y	
60.13(e)	Continuous monitors shall operate continuously	Y	
60.13(f)	Monitors shall be installed in proper locations	Y	
60.13(g)	Requires multiple monitors for multiple stacks	Y	
60.14	Modification	Y	
60.15	Reconstruction	Y	
60.19	General Notification and Reporting Requirements	Y	
40 CFR Part	**Standards of Performance for New Stationary Sources – Standards of**		

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
60, Subpart WWW	**Performance for Municipal Solid Waste Landfills (2/24/99)**		
60.752	Standards for Air Emissions from Municipal Solid Waste Landfills	Y	
60.752(b)	Comply with paragraph (b)(2) or calculate NMOC emission rate	Y	
60.752(b)(2)	Comply with all requirements in sections (b)(2)(i through iv)	Y	
60.752 (b)(2)(i)	Submit a collection and control system design plan	Y	
60.752 (b)(2)(ii)	Install a collection and control system	Y	2/12/02
60.752 (b)(2)(iii)	Route collected gases to a control system	Y	2/12/02
60.752 (b)(2)(iii)(B)	Reduce NMOC emissions by 98% by weight or reduce NMOC outlet concentration to less than 20 ppmv as hexane at 3% O2, dry basis	Y	2/12/02
60.752 (b)(2)(iv)	Operate in accordance with 60.753, 60.755, and 60.756	Y	2/12/02
60.753	Operational Standards for Collection and Control Systems	Y	
60.753(e)	Vent all collected gases to a control system complying with 60.752(b)(2)(iii)	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	Test Methods and Procedures	Y	
60.754(d)	Test Methods for Performance Test (Method 18 or 25C)	Y	
60.755	Compliance Provisions	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	Y	2/12/02
60.756	Monitoring of Operations	Y	
60.756(b)	Enclosed combustors shall comply with (b)(1) and (b)(2)	Y	2/12/02
60.756(b)(1)	Temperature monitor and continuous recorder	Y	2/12/02
60.756(b)(2)	Device that records flow to or bypass of the control device	Y	2/12/02
60.756(e)	Procedures for requesting alternative monitoring parameters	Y	

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
60.757	Reporting Requirements	Y	
60.757(c)	Submit a Collection and Control System Design Plan	Y	
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	Recordkeeping Requirements	Y	
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 2	S-5 should be given priority over all other engines (S-2, S-3 and S-4) (Plant Cumulative Increase)		
Part 5	NO2 $\leq$ 130 ppmv, dry @ 15% O2 (BACT)	Y	
Part 6	CO $\leq$ 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, BACT, and Plant Cumulative Increase)	Y	
Part 8	Total reduced sulfur compounds of the collected landfill gas $\leq$ 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	

IV. Source-specific Applicable Requirements

1 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.

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 Regulation 8, Rule 2	**Organic Compounds – Miscellaneous Operations (6/15/94)**		
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 # ~~338~~<u>17777</u>
For S-2, S-3, S-4, S-5, Internal Combustion Engines, Landfill Gas Fired

~~COND# 13324 ----------~~

~~1. Oxides of Nitrogen (NOx) emissions, calculated as NO2, shall not exceed 3.4 g/hp-hr.~~
~~2. Oxides of Nitrogen (NOx) emissions, calculated as NO2, shall not exceed 410 lb/day for sources S-2, S-3 and S-4 combined.~~
~~3. Carbon Monoxide (CO) emissions shall not exceed 7.5 gm/hp-hr.~~
~~4. Carbon Monoxide (CO) emissions shall not exceed 900 lbs/day for all 3 engines for Sources S-2, S-3 and S-4 combined.~~
~~5. The operator shall maintain daily records of hours of engine operation and electrical power output. The format of the records shall be approved by the District.~~
~~6. Upon request of the District, the operator shall conduct periodic source tests on all sources to assure compliance with conditions 1 through 4.~~
~~7. This engine shall be fired exclusively on landfill gas.~~
~~8. NOx emissions, calculated as NO2, shall not exceed 210 ppmv @ 15% O2.~~
~~9. CO emissions shall not exceed 2000 ppmv @ 15% O2.~~
~~10. Visible particulate emissions shall not exceed _0.5__ on the Ringelmann chart.~~

VI. Permit Conditions

~~COND# 3417~~

~~1. Source test data, which indicate NOx or CO emissions higher than those used in modeling, shall result in new modeling to be submitted for the higher emission rates to the District.~~
~~2. The operation of S-5 Waukesha engine/generator shall be given priority over all other engines operating at this facility at all times that a sufficient quality and quantity of landfill gas exists to operate S-5.~~
~~3. In the event that the landfill produces landfill gas in excess of the amount required to operate S-5, the operator shall operate S-2, 3, and/or 4 as required to fire all available landfill gas.~~
~~4. In the event that the facility energy output exceeds 2,000 Kwh the operator shall, within 30 days, apply to the District for an Authority to Construct an enclosed standby flare, or other control device demonstrated to the satisfaction of the APCO to sufficiently reduce the organic compounds in landfill gas.~~
~~5. In the event that S-5 Waukesha engine is inoperative and there is landfill gas in excess of what is required to fire S-2, 3, and 4 above 1,200 Kwh, the operator shall, within 30 days, apply to the District for an Authority to Construct an enclosed standby flare, or other control device demonstrated to the satisfaction of the APCO to sufficiently reduce the organic compounds in landfill gas.~~
~~6. The operator shall maintain separate daily records of electrical power output for both S-5 Waukesha engine plant and S-2, 3, and 4 Cooper engine plant.~~
~~7. This engine shall be fired exclusively on landfill gas.~~
~~8. NOx emissions, calculated as NO2, shall not exceed 140 ppmv @ 15% O2.~~
~~9. CO emissions shall not exceed 2000 ppmv @ 15% O2.~~
~~10. Visible particulate emissions shall not exceed _0.5__ on the Ringelmann chart.~~

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)

VI. Permit Conditions

3. Nitrogen Oxide (NO_x) emissions, from each Internal Combustion Engine (S-2, S-3 and S-4) shall not exceed 210 ppmv, dry basis, corrected to 15% O_2. (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_2. (Basis: BACT and Plant Cumulative Increase)

5. Nitrogen Oxide (NO_x) emissions, from S-5 shall not exceed 130 ppmv, dry basis, corrected to 15% O_2. (Basis: BACT)

6. Carbon Monoxide (CO) emissions from S-5 shall not exceed 260 ppmv, dry basis, corrected to 15% O_2. (Basis: BACT and Plant Cumulative Increase)

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; 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). At a minimum, 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_2), nitrogen (N_2), oxygen (O_2), methane (CH_4), 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_x, CO, CH_4, NMOC, THC, and O_2 in the exhaust gas from each engine;
   e. the CH_4, 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.

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(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, and 9-8-302.3)

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_2S). 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
    e. Monthly records of the heat input to S-5 and monthly records of the combined heat

VI. Permit Conditions

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_2S 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)

District comments on the proposed changes to Condition 13324
The original (superceded) parts 1 and 3, based on BACT requirements, limited NOx and CO emissions to 3.4 grams/bhp-hour and 7.5 grams/bhp-hour respectively. These emission rates are equivalent to:
(3.4 g NO_x/bhp-hr)(750 bhp)*(24 hrs/day)/(453.6 g/lb) = 134.92 lbs NO_x/day/engine*
(7.5 g CO/bhp-hr)(750 bhp)*(24 hrs/day)/(453.6 g/lb) = 297.62 lbs CO/day/engine*
For the three engines combined, the emission limits were 404.8 pounds/day of NO_x, 73.9 tons/year of NO_x, 892.9 pounds/day of CO, and 163 tons/year of CO.

The NOx emissions based on superceded part 1 (at the maximum possible operating rate) cannot exceed 405 pounds/day. Therefore, the superceded part 2 is not necessary and the District is proposing to delete it.

Since the maximum possible CO emissions, based on the CO limit of 7.5 grams/bhp-hour, cannot exceed 900 pounds/day, the superceded part 4 is not necessary and the District is proposing to delete it.

Superceded parts 5, 6 and 7 are being replaced with new, more specific conditions as identified in proposed parts 1, 7, 9 and 10.

On January 23, 1993, the District adopted Regulation 9, Rule 8. For rich-burn engines firing waste derived fuels, 9-8-302.2 limits NO_x emissions to 210 ppmv, dry at 15% O_2 and 9-8-302.3 limits CO emissions to 2000 ppmv, dry at 15% O_2. For an engine operating at 32% efficiency and burning landfill gas containing 50% methane with a high heat value of 500 BTU/scf, these concentrations were determined to be equivalent to 3.0 grams NO_x/bhp-hour and 17.6 grams CO/bhp-hour.

The 9-8-302.2 NO_x limit was determined to be no less stringent than the previous limit. The permit conditions were amended and part (3) superceded parts 1 and 8. The District

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is proposing to restate this limit in the proposed new part 3.

There were two limits on CO emissions (superceded parts 3 and 9). Since the 9-8-302.3 CO limit (superceded part 9) is less stringent than the previous BACT limit (superceded part 3), the District is proposing to delete these two confusing parts (3 and 9) and replaced with the equivalent of the original valid limit of 7.5 grams CO/bhp-hour (part 4).

Worst case emissions occur when an engine is burning landfill gas with low methane content. The engine efficiency is assumed to be 28%. The landfill gas is assumed to contain 45% methane and have a high heat value of 456 BTU/scf. At 45% methane and 0% excess air, landfill gas will produce 4.396 sdcf of flue gas per sdcf of landfill gas. Under these conditions, the emission limit of 7.5 g CO/bhp-hour is equivalent to 740 ppmv of CO, dry at 15% O_2.

There is no basis for requiring the Ringelmann 0.5 limit that is stated in amended part (10). Therefore the District is proposing to delete this limit.

The proposed new part 7 is necessary to demonstrate compliance with the applicable NO_x, CO, THC, and NMOC limits listed in the permit conditions, Regulation 8, Rule 34, and Regulation 9, Rule 8.

The proposed new part 8 is necessary to demonstrate compliance with the applicable SO_2 limit in Regulation 9, Rule 1.

*The proposed new part 9 describes the capacity of the engines based the maximum operating rates (15,000 scf LFG/hour * 450 BTU/scf = 6.75 MM BTU/hour) reported on the data forms submitted for Application #30486. The proposed new part 10 requires records to demonstrate compliance with these capacities based on measured landfill gas flow rates and average methane content. Using these proposed heat input limits and the new NOx and CO concentration limits, NOx and CO emissions will not exceed the original maximum permitted emission rates (134.92 lbs NOx/day/engine and 297.62 lbs CO/day/engine) when burning landfill gas with an average methane content of 50% or more.*

(162 E6 BTU/day)/(506.5 BTU/scf LFG)(4.7733 scf flue/scf LFG)*(20.95 scf @ 15% O_2)/(5.95 scf @ 0% O_2)*(210 scf $NO_x/10^6$ scf @ 15% O_2)/(386.8 scf NO_x/lbmol)*(46.01 lbs*

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NO_x/lbmol) = 134.3 lbs NO_x/day/engine

(162 E6 BTU/day)/(506.5 BTU/scf LFG)(4.7733 scf flue/scf LFG)*(20.95 scf @ 15% O_2)/(5.95 scf @ 0% O_2)*(740 scf CO/10^6 scf @ 15% O_2)/(386.8 scf CO/lbmol)*(28.01 lbs CO/lbmol) = 288.1 lbs CO/day/engine*

District comments on the proposed changes to Condition 3417
The original (superceded) part 1, based on BACT requirements under the Application #863, limited NOx and CO emissions to 2.0 grams/bhp-hour and 2.5 grams/bhp-hour respectively. These emission rates are equivalent to:
(2.0 g NO_x/bhp-hr)(1547 bhp)*(24 hrs/day)/(453.6 g/lb) = 163.7 lbs NO_x/day*
(2.5 g CO/bhp-hr)(1547 bhp)*(24 hrs/day)/(453.6 g/lb) = 204.6 lbs CO/day*

The District is proposing to supercede parts 1, 8 and 9 with parts 5 and 6. The BACT requirements for NOx (2.0 grams/bhp-hr) and CO (2.5 grams/bhp-hr) under the original application #863 are more stringent than the respective requirements of 9-8-302 (superceded parts 8 and 9). Therefore, the District is proposing to use the equivalent of the original limits of NOx (2.0 grams/bhp-hr) and CO (2.5 grams/bhp-hr).

Since parts 3, 4 and 5 are repetition of the permit condition and Regulations, the District is proposing to delete them.

The District is proposing to replace part 6 with a more specific condition part 9.

There is no basis for requiring the Ringelmann 0.5 limit that is stated in amended part (10). Therefore the District is proposing to delete this limit.

The proposed new part 7 is necessary to demonstrate compliance with the applicable NO_x, CO, THC, and NMOC limits listed in the permit conditions, Regulation 8, Rule 34, and Regulation 9, Rule 8.

The proposed new part 8 is necessary to demonstrate compliance with the applicable SO_2 limit in Regulation 9, Rule 1.

*The proposed new part 9 describes the capacity of the engine based the maximum operating rates (30,000 scf LFG/hour * 450 BTU/scf = 13.5 MM BTU/hour) reported on*

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the data forms submitted for Application #863. The proposed new part 10 requires records to demonstrate compliance with these capacities based on measured landfill gas flow rates and average methane content. Using these proposed heat input limits and the new NOx and CO concentration limits, NOx and CO emissions will not exceed the original maximum permitted emission rates (163.7 lbs NOx/day and 204.6 lbs CO/day) when burning landfill gas with an average methane content of 50% or more.

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(324 E6 BTU/day)/(506.5 BTU/scf LFG)(4.7733 scf flue/scf LFG)*(20.95 scf @ 15% O_2)/(5.95 scf @ 0% O_2)*(128 scf $NO_x/10^6$ scf @ 15% O_2)/(386.8 scf NO_x/lbmol)*(46.01 lbs NO_x/lbmol) = 163.7 lbs NO_x/day*

(324 E6 BTU/day)/(506.5 BTU/scf LFG)(4.7733 scf flue/scf LFG)*(20.95 scf @ 15% O_2)/(5.95 scf @ 0% O_2)*(263 scf $CO/10^6$ scf @ 15% O_2)/(386.8 scf CO/lbmol)*(28.01 lbs CO/lbmol) = 204.6 lbs CO/day*

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 Com-pounds Plus Methane)	BAAQMD 8-34-301.2	N		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

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Non-Methane Organic Com-pounds (NMOC)	BAAQMD 8-34-301.4b	N	7/1/02	98% removal by weight OR < 120 ppmv dry @ 3% O_2, expressed as methane	BAAQMD Condition # 17777, Part 7 d-e	P/A	Annual Source Tests
NMOC	40 CFR 60.752(b)(2)(iii)(B)	Y	2/12/02	98% removal by weight OR < 20 ppmv dry @ 3% O_2, expressed as hexane	40 CFR 60.8 and 60.752(b)(2)(iii)(B) and 60.758(b)(2)	P/I	Initial Source Test and Records
SO_2	BAAQMD 9-1-301	Y		Property Line Ground Level Limits ≤ 0.5 ppm for 3 minutes, ≤ 0.25 ppm for 60 minutes, and ≤0.05 ppm for 24 hours		N	
SO_2	BAAQMD 9-1-302	Y		≤ 300 ppm (dry)	BAAQMD Condition # 17777, Part 8	P/W, M, or Q (Monthly if 3 months data < 1300 ppm, Quarterly if 1 year of data < 1300 ppm)	Sulfur Analysis of landfill gas only
H_2S	BAAQMD 9-2-301	N		Property Line ground level limits ≤ 0.06 ppm Averaged over 3 minutes and ≤ 0.03 ppm Averaged over 60 minutes		N	

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 Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Total Sulfur Content in Landfill Gas	BAAQMD Condition # 17777, Part 8	Y		≤ 1300 ppmv (dry)	BAAQMD Condition # 17777, Part 8	P/W, M, or Q (Monthly if 3 months data < 1300 ppmv (dry), Quarterly if 1 year of data < 1300 ppmv (dry))	Sulfur Analysis of landfill gas only
NO_x	BAAQMD 9-8-302.2 and BAAQMD Condition # 17777, Part 3	Y		Waste Fuel Gas, Rich-Burn 210 ppmv dry @ 15% O_2	BAAQMD Condition # 17777, Part 7d	P/A	Annual Source Test
CO	BAAQMD 9-8-302.3	Y		Waste Fuel Gas: 2000 ppmv dry @ 15% O_2	BAAQMD Condition # 17777, Part 7d	P/A	Annual Source Test
CO	BAAQMD Condition # 17777, Part 4	Y		740 ppmv dry @ 15% O_2	BAAQMD Condition # 17777, Part 7d	P/A	Annual Source Test
Emission Control System Shutdown Time	BAAQMD 8-34-113.2	N		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

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 Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
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
Temper-ature of Combus-tion Zone		N	7/1/02	Temperature limit will be established during review of the Collection and Control System Design Plan	BAAQMD 8-34-501.3 and 8-34-507 (effective 7/1/02)	C	Temperature sensor and continuous recorder; effective 7/1/02
Combus-tion Temper-ature	40 CFR 60.758(c)(1)(i)	Y	2/12/02	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)	C	Temperature sensor and continuous recorder
Gas Flow	BAAQMD 8-34-301 and 301.1;	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)	C	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

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 Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Gas Flow	40 CFR 60.753(a) and (e)	Y	2/12/02	Vent all collected gases to a properly operating control system and operate control system at all times when gas is vented to it	40 CFR 60.756(b)(2) (i or ii) and 60.758(c)(2)	C or P/M	Gas Flow Meter and Recorder (every 15 minutes) or Monthly Inspection of Bypass Valve and Lock and Records
Periods of Inopera-tion for Para-metric Monitors	BAAQMD 1-523.2	Y	2/12/02	15 consecutive days/incident and 30 calendar days/12 month period	BAAQMD 1-523.4	P/D	Records of occurrence and duration
Contin-uous Monitors	40 CFR 60.13(e)	Y	2/12/02	Requires Continuous Operation except for breakdowns, repairs, calibration, and required span adjustments	40 CFR 60.7(b)	P/D	Records of occurrence and duration
Heat Input	BAAQMD Condition # 17777, Part 9	Y		162 MM BTU/day/engine and 177,390 MM BTU per 12-month period for all engines combined	BAAQMD Condition # 17777, Part 10 a-e	P/D,M	Records

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
Opacity	BAAQMD 6-301	Y		Ringelmann No. 1		N	
FP	BAAQMD 6-310	Y		0.15 grains/dscf		N	
TOC (Total Organic Com-pounds Plus Methane)	BAAQMD 8-34-301.2	N		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
Non-Methane Organic Com-pounds (NMOC)	BAAQMD 8-34-301.4b	N	7/1/02	98% removal by weight OR < 120 ppmv dry @ 3% O_2, expressed as methane	BAAQMD Condition # 17777, Part 7 d-e	P/A	Annual Source Tests

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
NMOC	40 CFR 60.752(b)(2)(iii)(B)	Y	2/12/02	98% removal by weight OR < 20 ppmv dry @ 3% O_2, expressed as hexane	40 CFR 60.8 and 60.752(b)(2)(iii)(B) and 60.758(b)(2)	P/I	Initial Source Test and Records
SO_2	BAAQMD 9-1-301	Y		Property Line Ground Level Limits ≤ 0.5 ppm for 3 minutes, ≤ 0.25 ppm for 60 minutes, and ≤0.05 ppm for 24 hours		N	
SO_2	BAAQMD 9-1-302	Y		≤ 300 ppm (dry)	BAAQMD Condition # 17777, Part 8	P/W, M, or Q (Monthly if 3 months data < 1300 ppm, Quarterly if 1 year of data < 1300 ppm)	Sulfur Analysis of landfill gas only
H_2S	BAAQMD 9-2-301	N		Property Line ground level limits ≤ 0.06 ppm Averaged over 3 minutes and ≤ 0.03 ppm Averaged over 60 minutes		N	

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
Total Sulfur Content in Landfill Gas	BAAQMD Condition # 17777, Part 8	Y		≤ 1300 ppmv (dry)	BAAQMD Condition # 17777, Part 8	P/W, M, or Q (Monthly if 3 months data < 1300 ppmv (dry), Quarterly if 1 year of data < 1300 ppmv (dry))	Sulfur Analysis of landfill gas only
NO_x	BAAQMD 9-8-302.1	Y		Waste Fuel Gas, Lean-Burn 140 ppmv dry @ 15% O_2	BAAQMD 9-8-302.1	P/A	Annual Source Test
NO_x	BAAQMD Condition # 17777, Part 5	Y		Waste Fuel Gas, Lean-Burn 130 ppmv dry @ 15% O_2	BAAQMD Condition # 17777, Part 7d	P/A	Annual Source Test
CO	BAAQMD 9-8-302.3	Y		Waste Fuel Gas: 2000 ppmv dry @ 15% O_2	BAAQMD Condition # 17777, Part 7d	P/A	Annual Source Test
CO	BAAQMD Condition # 17777, Part 6	Y		260 ppmv dry @ 15% O_2	BAAQMD Condition # 17777, Part 7d	P/A	Annual Source Test
Emission Control System Shutdown Time	BAAQMD 8-34-113.2	N		240 hours/year	BAAQMD 8-34-501.2	P/D	Records

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
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
Temper-ature of Combus-tion Zone		N	7/1/02	Temperature limit will be established during review of Collection and Control System Design Plan	BAAQMD 8-34-501.3 and 8-34-507 (effective 7/1/02)	C	Temperature sensor and continuous recorder; effective 7/1/02
Combus-tion Temper-ature	40 CFR 60.758(c)(1)(i)	Y	2/12/02	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)	C	Temperature sensor and continuous recorder

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
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)	C	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
Gas Flow	40 CFR 60.753(a) and (e)	Y	2/12/02	Vent all collected gases to a properly operating control system and operate control system at all times when gas is vented to it	40 CFR 60.756(b)(2) (i or ii) and 60.758(c)(2)	C or P/M	Gas Flow Meter and Recorder (every 15 minutes) or Monthly Inspection of Bypass Valve and Lock and Records
Periods of Inopera-tion for Para-metric Monitors	BAAQMD 1-523.2	Y	2/12/02	15 consecutive days/incident and 30 calendar days/12 month period	BAAQMD 1-523.4	P/D	Records of occurrence and duration

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
Contin-uous Monitors	40 CFR 60.13(e)	Y	2/12/02	Requires Continuous Operation except for breakdowns, repairs, calibration, and required span adjustments	40 CFR 60.7(b)	P/D	Records of occurrence and duration
Heat Input	BAAQMD Condition # 17777, Part 9	Y		324 MM BTU per day and 118,260 MM BTU per 12-month period	BAAQMD Condition # 17777, Part 10 a-e	P/D,M	Records

VII. Applicable Limits and Compliance Monitoring Requirements

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

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

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 6-301	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD 6-310	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulate
BAAQMD 8-34-114	Energy Recovery Device and Emission Control System	Manual of Procedures, Volume IV, ST-7, Organic Compounds and ST-14, Oxygen, Continuous Sampling; or EPA Reference Method 18, 25, 25A, or 25C
BAAQMD 8-34-301.2	Collection and Control System Leak Limitations	EPA Reference Method 21, Determination of Volatile Organic Compound Leaks
BAAQMD 8-34-301.4	Limits for Other Emission Control Systems	Manual of Procedures, Volume IV, ST-7, Organic Compounds and ST-14, Oxygen, Continuous Sampling; or EPA Reference Method 18, 25, 25A, or 25C
SIP 8-34-301.1	Collection and Control Systems Leak Limitations	EPA Reference Method 21, Determination of Volatile Organic Compound Leaks
SIP 8-34-301.3 [1]	Energy Recovery Device or Emission Control System Limit	Manual of Procedures, Volume IV, ST-7, Organic Compounds; or EPA Reference Method 25 or 25A
BAAQMD 9-1-302	General Emission Limitation	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling, or ST-19B, Total Sulfur Oxides, Integrated Sample
BAAQMD 9-8-302.1	Waste Derived Fuel Gas NOx Limits for Lean Burn Engines	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-8-302.2	Waste Derived Fuel Gas NOx Limits for Rich Burn Engines	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-8-302.3	Waste Derived Fuel Gas CO Limits	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, 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 60.752 (b)(2)(iii)(B)	NMOC Destruction Efficiency and Outlet Concentration Limits	EPA Reference Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography, Method 25, Determination of Total Gaseous Nonmethane Organic Emissions as Carbon, Method 25A, Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer, or Method 25C, Determination of Nonmethane Organic Compounds (NMOC) in MSW Landfill Gases
BAAQMD 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 Compounds in Landfill Gas	Draeger Tube: used in accordance with manufacturer's 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

IX. PERMIT SHIELD

Not applicable.

X. 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.

NAAQS
National Ambient Air Quality Standards

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

NMHC
Non-methane Hydrocarbons

NMOC
Non-methane Organic Compounds (same as NMHC)

NOx
Oxides of nitrogen.

X. Glossary

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

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

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

SO2
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

XI. APPLICABLE STATE IMPLEMENTATION PLAN

See Attachments