

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 #B1670

Facility Address:
1804 Dixon Landing Road
San Jose, CA 95134

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
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 deadline, 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 Protection Agency at the following address:

I. Standard Conditions

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, rich burn, landfill gas fired; with Landfill Gas Condensate Injection/Oxidation System	Cooper-Superior, Rich Burn	8G825	750 HP 6.75 MM BTU/hour
3	Internal Combustion Engine, rich burn, landfill gas fired	Cooper-Superior, Rich Burn	8G825	750 HP 6.75 MM BTU/hour
4	Internal Combustion Engine, rich burn, landfill gas fired	Cooper-Superior, Rich Burn	8G825	750 HP 6.75 MM BTU/hour
5	Internal Combustion Engine, rich burn, landfill gas fired	Cooper-Superior, Rich Burn	8G825	750 HP 6.75 MM BTU/hour
8	Internal Combustion Engine, lean burn, landfill gas fired	Waukesha, Lean Burn	7042GL	1547 HP 13.5 MM BTU/hour
9	Internal Combustion Engine, lean burn, landfill gas fired	Waukesha, Lean Burn	7042GL	1547 HP 13.5 MM BTU/hour
11	Internal Combustion Engine, lean burn, landfill gas fired	Waukesha, Lean Burn	7042GL	1547 HP 13.5 MM BTU/hour
18	Solvent Disposal Tank, V-105	Fixed Roof		1,000 Gallons
21	Landfill Gas Condensate Storage Tank	Fixed Roof		21,000 Gallons

II. Equipment

Table II B - Abatement Devices

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
1	Genstar Thermal Reactor	2	BAAQMD Condition # 347, Part 3 and Future BAAQMD Condition # 16669, Part 3		740 ppmv CO @ 15% O2
2	Genstar Thermal Reactor	3	BAAQMD Condition # 347, Part 3		740 ppmv CO @ 15% O2
3	Genstar Thermal Reactor	4	BAAQMD Condition # 347, Part 3		740 ppmv CO @ 15% O2
4	Genstar Thermal Reactor	5	BAAQMD Condition # 347, Part 3		740 ppmv CO @ 15% O2
5	Activated Carbon Adsorption System (Optional, not required by Regulation 8-5, Regulation 8-2 or NSR)	21	BAAQMD Condition # 16025, Part 5		95% Collection and Control of Organic Compounds

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
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)	N
BAAQMD Regulation 6	Particulate Matter and Visible Emissions (12/19/90)	N
BAAQMD Regulation 7	Odorous Substances (3/17/82)	N
BAAQMD Regulation 8, Rule 1	Organic Compounds - General Provisions (6/15/94)	Y

II. Generally Applicable Requirements

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (12/20/95)	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
S2 - INTERNAL COMBUSTION ENGINE, RICH BURN, LANDFILL GAS FIRED; WITH LANDFILL GAS
CONDENSATE INJECTION/OXIDATION SYSTEM

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	Y	7/1/02
1-523.1	Reporting requirement for periods of inoperation > 24 hours	Y	7/1/02
1-523.2	Limit on duration of inoperation	Y	7/1/02
1-523.3	Reporting requirement for violations of any applicable limits	Y	7/1/02
1-523.4	Records of inoperation, tests, calibrations, adjustments, & maintenance	Y	7/1/02
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
S2 - INTERNAL COMBUSTION ENGINE, RICH BURN, LANDFILL GAS FIRED; WITH LANDFILL GAS
CONDENSATE INJECTION/OXIDATION SYSTEM

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	
8-34-412	Compliance Demonstration Tests	N	
8-34-413	Performance Test Report	N	
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
S2 - INTERNAL COMBUSTION ENGINE, RICH BURN, LANDFILL GAS FIRED; WITH LANDFILL GAS
CONDENSATE INJECTION/OXIDATION SYSTEM

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 ¹	
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 ¹	
8-34-301.1	Collection and Control Systems Leak Limitations	Y ¹	
8-34-301.4	Continuous Operation	Y ¹	
8-34-501	Operating Records	Y ¹	
8-34-501.2	Emission Control System Downtime	Y ¹	
8-34-501.4	Records of Testing for Compliance with 8-34-111.3 or 301	Y ¹	
8-34-501.6	Records Retention	Y ¹	
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	

IV. Source-specific Applicable Requirements

Table IV – A
Source-specific Applicable Requirements
S2 - INTERNAL COMBUSTION ENGINE, RICH BURN, LANDFILL GAS FIRED; WITH LANDFILL GAS
CONDENSATE INJECTION/OXIDATION SYSTEM

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
9-8-302.2	Rich-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 operating 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 Cc	Standards of Performance for New Stationary Sources – Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills (2/24/99)		
60.32c	Designated Facilities	Y	
60.32c(a)	Construction or modification commenced before 5/30/91	Y	
60.32c(b)	Physical or operational changes made in order to comply are not considered modifications	Y	
60.32c(c)	Title V applicability and subject date	Y	

IV. Source-specific Applicable Requirements

Table IV – A
Source-specific Applicable Requirements
S2 - INTERNAL COMBUSTION ENGINE, RICH BURN, LANDFILL GAS FIRED; WITH LANDFILL GAS
CONDENSATE INJECTION/OXIDATION SYSTEM

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.36c	Compliance Times	Y	
60.36c(a)	Collection and Control Systems in Compliance by 30 months After Initial NMOC Emission Rate Report Shows NMOC Emissions \geq 50 MG/year	Y	
60.36c(b)	Collection and Control Systems in Compliance by 30 months After Annual NMOC Emission Rate Report Shows NMOC Emissions \geq 50 MG/year	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	4/6/01
60.752 (b)(2)(ii)	Install a collection and control system	Y	10/6/02
60.752 (b)(2)(iii)	Route collected gases to a control system.	Y	10/6/02
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% O ₂ , dry basis	Y	10/6/02
60.752 (b)(2)(iv)	Operate in accordance with 60.753, 60.755, and 60.756	Y	10/6/02
60.753	Operational Standards for Collection and Control Systems	Y	10/6/02
60.753(e)	Vent all collected gases to a control system complying with 60.752(b)(2)(iii)	Y	10/6/02
60.753(f)	Operate the control system at all times when collected gas is routed to the control system	Y	10/6/02
60.754	Test Methods and Procedures	Y	
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
S2 - INTERNAL COMBUSTION ENGINE, RICH BURN, LANDFILL GAS FIRED; WITH LANDFILL GAS
CONDENSATE INJECTION/OXIDATION SYSTEM

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
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	10/6/02
60.756	Monitoring of Operations	Y	
60.756(b)	Enclosed combustors shall comply with (b)(1) and (b)(2)	Y	10/6/02
60.756(b)(1)	Temperature monitor and continuous recorder	Y	10/6/02
60.756(b)(2)	Device that records flow to or bypass of the control device	Y	10/6/02
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	4/6/01
60.757(f)	Submit Annual Reports containing information required by (f)(1), (f)(2), and (f)(3)	Y	4/4/03
60.757(f)(1)	Value and length of time for exceedance of parameters monitored per 60.756(a), (b) or (d)	Y	4/4/03
60.757(f)(2)	Description and duration of all periods when gas is diverted from the control device by a by-pass line	Y	4/4/03
60.757(f)(3)	Description and duration of all periods when control device was not operating for more than 1 hour	Y	4/4/03
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)	Y	
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	
40 CFR Part 62, Subpart GGG	Approval and Promulgation of State Plans for Designated Facilities and Pollutants – Federal Plan Requirements for Municipal Solid Waste Landfills that Commenced Construction Prior to May 30, 1991 and Have Not Been Modified or Reconstructed Since May 30, 1991 (11/8/99)		
62.14352	Designated Facilities	Y	

IV. Source-specific Applicable Requirements

Table IV – A
Source-specific Applicable Requirements
S2 - INTERNAL COMBUSTION ENGINE, RICH BURN, LANDFILL GAS FIRED; WITH LANDFILL GAS
CONDENSATE INJECTION/OXIDATION SYSTEM

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
62.14352(a)	Landfills meeting (a)(1) and (a)(2) and not exempted by (b) or (c)	Y	
62.14352(a)(1)	Commenced construction, reconstruction, or modification before May 30, 1991	Y	
62.14352(a)(2)	Accepted waste since November 8, 1987 or has additional design capacity available	Y	
62.14353	Standards for Municipal Solid Waste Landfill Emissions	Y	
62.14353(b)	Landfills with Design Capacity equal to or greater than 2.5 million Mg and 2.5 million m ³ must comply with 40 CFR 60.752(b)	Y	
62.14354	Procedures, Test Methods, and Monitoring	Y	
62.14354(b)	A control system used to comply with 62.14353(b) must comply with 40 CFR 60.753, 60.754(d), 60.755, and 60.756.	Y	
62.14355	Reporting and Recordkeeping Requirements	Y	
62.14355(a)	Designated facilities must comply with 40 CFR 60.757 & 60.758	Y	
62.14355(b)	Notification requirement for increments of progress	Y	
62.14355(c)	Notification requirement for failure to meet an increment of progress	Y	
62.14356	Compliance Schedules and Increments of Progress	Y	
62.14356(a)	Increments of Progress	Y	
62.14356(a)(1)	Submit final control plan	Y	4/6/01
62.14356(a)(2)	Award contracts for construction of any new equipment or for modifications necessary to meet control plan	Y	12/6/01
62.14356(a)(3)	Initiate on-site construction	Y	4/6/02
62.14356(a)(4)	Complete on-site construction	Y	10/6/02
62.14356(a)(5)	Achieve final compliance	Y	10/6/02
62.14356(b)	Final compliance must be achieved within 30 months of the first report showing NMOC emissions > 50 Mg/year	Y	10/6/02
62.14356(c)	Compliance schedules	Y	

IV. Source-specific Applicable Requirements

Table IV – A
Source-specific Applicable Requirements
S2 - INTERNAL COMBUSTION ENGINE, RICH BURN, LANDFILL GAS FIRED; WITH LANDFILL GAS
CONDENSATE INJECTION/OXIDATION SYSTEM

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
62.14356 (c)(1)	Achieve increments of progress according to Table 3 of this section	Y	
BAAQMD Condition # 16669			
Part 1	Fuel restrictions (Cumulative Increase)	Y	
Part 2	Exhaust gas NO _x concentration limit (BACT and Regulation 9-8-302.2)	Y	
Part 3	Exhaust gas CO Concentration limit (BACT and Cumulative Increase)	Y	
Part 4	Annual source test (BACT, Cumulative Increase, Regulations 8-34-114, 8-34-301.4, 8-34-412, 9-8-302.2 and 9-8-302.3)	Y	
Part 5	Landfill gas sulfur content limit and monitoring requirements (Regulations 2-6-503 and 9-1-302)	Y	
Part 6	Heat input limits (Regulation 2-1-301)	Y	
Part 7	Record keeping requirements for Parts 5 and 6 (Regulations 2-1-301 and 2-6-501)	Y	
Part 8	POC emission limit for Condensate Injection/Oxidation System, calculation procedure, and record keeping requirements (Cumulative Increase)	Y	Upon startup of Condensate Injection/Oxidation System at S-2
Part 9	Recording keeping requirements for landfill gas condensate flow rate (Cumulative Increase)	Y	Upon startup of Condensate Injection/Oxidation System at S-2

IV. Source-specific Applicable Requirements

Table IV – A
Source-specific Applicable Requirements
S2 - INTERNAL COMBUSTION ENGINE, RICH BURN, LANDFILL GAS FIRED; WITH LANDFILL GAS
CONDENSATE INJECTION/OXIDATION SYSTEM

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
Part 10	Testing and record keeping requirements for VOC concentration in landfill gas condensate (Cumulative Increase)	Y	Upon startup of Condensate Injection/Oxidation System at S-2
Part 11	Initial source test for NMOC destruction efficiency achieved by the Condensate Injection/Oxidation System (Cumulative Increase)	Y	Upon startup of Condensate Injection/Oxidation System at S-2

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
S3, S4 AND S5 - INTERNAL COMBUSTION ENGINES, RICH BURN, 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	Y	7/1/02

IV. Source-specific Applicable Requirements

Table IV – B
Source-specific Applicable Requirements
S3, S4 AND S5 - INTERNAL COMBUSTION ENGINES, RICH BURN, LANDFILL GAS FIRED

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
1-523.1	Reporting requirement for periods of inoperation > 24 hours	Y	7/1/02
1-523.2	Limit on duration of inoperation	Y	7/1/02
1-523.3	Reporting requirement for violations of any applicable limits	Y	7/1/02
1-523.4	Records of inoperation, tests, calibrations, adjustments, & maintenance	Y	7/1/02
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	
8-34-412	Compliance Demonstration Tests	N	
8-34-413	Performance Test Report	N	
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
S3, S4 AND S5 - INTERNAL COMBUSTION ENGINES, RICH BURN, 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 ¹	
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 ¹	
8-34-301.1	Collection and Control Systems Leak Limitations	Y ¹	
8-34-301.4	Continuous Operation	Y ¹	
8-34-501	Operating Records	Y ¹	
8-34-501.2	Emission Control System Downtime	Y ¹	
8-34-501.4	Records of Testing for Compliance with 8-34-111.3 or 301	Y ¹	
8-34-501.6	Records Retention	Y ¹	
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
S3, S4 AND S5 - INTERNAL COMBUSTION ENGINES, RICH BURN, 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	
9-8-302.2	Rich-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 operating 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	

IV. Source-specific Applicable Requirements

Table IV – B
Source-specific Applicable Requirements
S3, S4 AND S5 - INTERNAL COMBUSTION ENGINES, RICH BURN, LANDFILL GAS FIRED

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
40 CFR Part 60, Subpart Cc	Standards of Performance for New Stationary Sources – Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills (2/24/99)		
60.32c	Designated Facilities	Y	
60.32c(a)	Construction or modification commenced before 5/30/91	Y	
60.32c(b)	Physical or operational changes made in order to comply are not considered modifications	Y	
60.32c(c)	Title V applicability and subject date	Y	
60.36c	Compliance Times	Y	
60.36c(a)	Collection and Control Systems in Compliance by 30 months After Initial NMOC Emission Rate Report Shows NMOC Emissions \geq 50 MG/year	Y	
60.36c(b)	Collection and Control Systems in Compliance by 30 months After Annual NMOC Emission Rate Report Shows NMOC Emissions \geq 50 MG/year	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	4/6/00
60.752 (b)(2)(i)	Submit a collection and control system design plan	Y	4/6/01
60.752 (b)(2)(ii)	Install a collection and control system	Y	10/6/02
60.752 (b)(2)(iii)	Route collected gases to a control system.	Y	10/6/02
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% O ₂ , dry basis	Y	10/6/02
60.752 (b)(2)(iv)	Operate in accordance with 60.753, 60.755, and 60.756	Y	10/6/02

IV. Source-specific Applicable Requirements

Table IV – B
Source-specific Applicable Requirements
S3, S4 AND S5 - INTERNAL COMBUSTION ENGINES, RICH BURN, LANDFILL GAS FIRED

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.753	Operational Standards for Collection and Control Systems	Y	10/6/02
60.753(e)	Vent all collected gases to a control system complying with 60.752(b)(2)(iii)	Y	10/6/02
60.753(f)	Operate the control system at all times when collected gas is routed to the control system	Y	10/6/02
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	10/6/02
60.756	Monitoring of Operations	Y	
60.756(b)	Enclosed combustors shall comply with (b)(1) and (b)(2)	Y	10/6/02
60.756(b)(1)	Temperature monitor and continuous recorder	Y	10/6/02
60.756(b)(2)	Device that records flow to or bypass of the control device	Y	10/6/02
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	4/6/01
60.757(f)	Submit Annual Reports containing information required by (f)(1), (f)(2), and (f)(3)	Y	4/4/03
60.757(f)(1)	Value and length of time for exceedance of parameters monitored per 60.756(a), (b) or (d)	Y	4/4/03
60.757(f)(2)	Description and duration of all periods when gas is diverted from the control device by a by-pass line	Y	4/4/03
60.757(f)(3)	Description and duration of all periods when control device was not operating for more than 1 hour	Y	4/4/03
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)	Y	
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	

IV. Source-specific Applicable Requirements

Table IV – B
Source-specific Applicable Requirements
S3, S4 AND S5 - INTERNAL COMBUSTION ENGINES, RICH BURN, LANDFILL GAS FIRED

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
40 CFR Part 62, Subpart GGG	Approval and Promulgation of State Plans for Designated Facilities and Pollutants – Federal Plan Requirements for Municipal Solid Waste Landfills that Commenced Construction Prior to May 30, 1991 and Have Not Been Modified or Reconstructed Since May 30, 1991 (11/8/99)		
62.14352	Designated Facilities	Y	
62.14352(a)	Landfills meeting (a)(1) and (a)(2) and not exempted by (b) or (c)	Y	
62.14352(a)(1)	Commenced construction, reconstruction, or modification before May 30, 1991	Y	
62.14352(a)(2)	Accepted waste since November 8, 1987 or has additional design capacity available	Y	
62.14353	Standards for Municipal Solid Waste Landfill Emissions	Y	
62.14353(b)	Landfills with Design Capacity equal to or greater than 2.5 million Mg and 2.5 million m ³ must comply with 40 CFR 60.752(b)	Y	
62.14354	Procedures, Test Methods, and Monitoring	Y	
62.14354(b)	A control system used to comply with 62.14353(b) must comply with 40 CFR 60.753, 60.754(d), 60.755, and 60.756.	Y	
62.14355	Reporting and Recordkeeping Requirements	Y	
62.14355(a)	Designated facilities must comply with 40 CFR 60.757 & 60.758	Y	
62.14355(b)	Notification requirement for increments of progress	Y	
62.14355(c)	Notification requirement for failure to meet an increment of progress	Y	
62.14356	Compliance Schedules and Increments of Progress	Y	
62.14356(a)	Increments of Progress	Y	
62.14356(a)(1)	Submit final control plan	Y	4/6/01
62.14356(a)(2)	Award contracts for construction of any new equipment or for modifications necessary to meet control plan	Y	12/6/01
62.14356(a)(3)	Initiate on-site construction	Y	4/6/02
62.14356(a)(4)	Complete on-site construction	Y	10/6/02

IV. Source-specific Applicable Requirements

Table IV – B
Source-specific Applicable Requirements
S3, S4 AND S5 - INTERNAL COMBUSTION ENGINES, RICH BURN, LANDFILL GAS FIRED

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
62.14356 (a)(5)	Achieve final compliance	Y	10/6/02
62.14356(b)	Final compliance must be achieved within 30 months of the first report showing NMOC emissions > 50 Mg/year	Y	10/6/02
62.14356(c)	Compliance schedules	Y	
62.14356 (c)(1)	Achieve increments of progress according to Table 3 of this section	Y	
BAAQMD Condition # 347			
Part 1	Fuel restrictions (Cumulative Increase)	Y	
Part 2	Exhaust gas NO _x concentration limit (BACT and Regulation 9-8-302.2)	Y	
Part 3	Exhaust gas CO concentration limit (BACT and Cumulative Increase)	Y	
Part 4	Annual source test (BACT, Cumulative Increase, Regulations 8-34-114, 8-34-301.4, 8-34-412, 9-8-302.2 and 9-8-302.3)	Y	
Part 5	Landfill gas sulfur content limit and monitoring requirements (Regulations 2-6-503 and 9-1-302)	Y	
Part 6	Heat input limits (Regulation 2-1-301)	Y	
Part 7	Record keeping requirements for Parts 5 and 6 (Regulations 2-1-301 and 2-6-501)	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.

IV. Source-specific Applicable Requirements

Table IV – C
Source-specific Applicable Requirements
S8, S9, AND S11 - INTERNAL COMBUSTION ENGINES, LEAN BURN, 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	Y	7/1/02
1-523.1	Reporting requirement for periods of inoperation > 24 hours	Y	7/1/02
1-523.2	Limit on duration of inoperation	Y	7/1/02
1-523.3	Reporting requirement for violations of any applicable limits	Y	7/1/02
1-523.4	Records of inoperation, tests, calibrations, adjustments, & maintenance	Y	7/1/02
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	

IV. Source-specific Applicable Requirements

Table IV – C
Source-specific Applicable Requirements
S8, S9, AND S11 - INTERNAL COMBUSTION ENGINES, LEAN BURN, LANDFILL GAS FIRED

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-34-412	Compliance Demonstration Tests	N	
8-34-413	Performance Test Report	N	
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
SIP Regulation 8, Rule 34	Organic Compounds - Solid Waste Disposal Sites (6/15/94)		
8-34-113	Exemption, Inspection and Maintenance	Y ¹	
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 ¹	
8-34-301.1	Collection and Control Systems Leak Limitations	Y ¹	
8-34-301.4	Continuous Operation	Y ¹	
8-34-501	Operating Records	Y ¹	
8-34-501.2	Emission Control System Downtime	Y ¹	
8-34-501.4	Records of Testing for Compliance with 8-34-111.3 or 301	Y ¹	
8-34-501.6	Records Retention	Y ¹	
8-34-503	Landfill Gas Collection System Testing	Y	
8-34-504	Portable Hydrocarbon Detector	Y	

IV. Source-specific Applicable Requirements

Table IV – C
Source-specific Applicable Requirements
S8, S9, AND S11 - INTERNAL COMBUSTION ENGINES, LEAN BURN, LANDFILL GAS FIRED

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
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	
9-8-302.1	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 operating 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	

IV. Source-specific Applicable Requirements

Table IV – C
Source-specific Applicable Requirements
S8, S9, AND S11 - INTERNAL COMBUSTION ENGINES, LEAN BURN, LANDFILL GAS FIRED

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
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 Cc	Standards of Performance for New Stationary Sources – Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills (2/24/99)		
60.32c	Designated Facilities	Y	
60.32c(a)	Construction or modification commenced before 5/30/91	Y	
60.32c(b)	Physical or operational changes made in order to comply are not considered modifications	Y	
60.32c(c)	Title V applicability and subject date	Y	
60.36c	Compliance Times	Y	
60.36c(a)	Collection and Control Systems in Compliance by 30 months After Initial NMOC Emission Rate Report Shows NMOC Emissions \geq 50 MG/year	Y	
60.36c(b)	Collection and Control Systems in Compliance by 30 months After Annual NMOC Emission Rate Report Shows NMOC Emissions \geq 50 MG/year	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	4/6/01
60.752 (b)(2)(ii)	Install a collection and control system	Y	10/6/02
60.752 (b)(2)(iii)	Route collected gases to a control system.	Y	10/6/02

IV. Source-specific Applicable Requirements

Table IV – C
Source-specific Applicable Requirements
S8, S9, AND S11 - INTERNAL COMBUSTION ENGINES, LEAN BURN, LANDFILL GAS FIRED

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
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% O ₂ , dry basis	Y	10/6/02
60.752 (b)(2)(iv)	Operate in accordance with 60.753, 60.755, and 60.756	Y	10/6/02
60.753	Operational Standards for Collection and Control Systems	Y	10/6/02
60.753(e)	Vent all collected gases to a control system complying with 60.752(b)(2)(iii)	Y	10/6/02
60.753(f)	Operate the control system at all times when collected gas is routed to the control system	Y	10/6/02
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	10/6/02
60.756	Monitoring of Operations	Y	
60.756(b)	Enclosed combustors shall comply with (b)(1) and (b)(2)	Y	10/6/02
60.756(b)(1)	Temperature monitor and continuous recorder	Y	10/6/02
60.756(b)(2)	Device that records flow to or bypass of the control device	Y	10/6/02
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	4/6/01
60.757(f)	Submit Annual Reports containing information required by (f)(1), (f)(2), and (f)(3)	Y	4/4/03
60.757(f)(1)	Value and length of time for exceedance of parameters monitored per 60.756(a), (b) or (d)	Y	4/4/03
60.757(f)(2)	Description and duration of all periods when gas is diverted from the control device by a by-pass line	Y	4/4/03
60.757(f)(3)	Description and duration of all periods when control device was not operating for more than 1 hour	Y	4/4/03
60.758	Recordkeeping Requirements	Y	

IV. Source-specific Applicable Requirements

Table IV – C
Source-specific Applicable Requirements
S8, S9, AND S11 - INTERNAL COMBUSTION ENGINES, LEAN BURN, LANDFILL GAS FIRED

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
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)	Y	
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	
40 CFR Part 62, Subpart GGG	Approval and Promulgation of State Plans for Designated Facilities and Pollutants – Federal Plan Requirements for Municipal Solid Waste Landfills that Commenced Construction Prior to May 30, 1991 and Have Not Been Modified or Reconstructed Since May 30, 1991 (11/8/99)		
62.14352	Designated Facilities	Y	
62.14352(a)	Landfills meeting (a)(1) and (a)(2) and not exempted by (b) or (c)	Y	
62.14352(a)(1)	Commenced construction, reconstruction, or modification before May 30, 1991	Y	
62.14352(a)(2)	Accepted waste since November 8, 1987 or has additional design capacity available	Y	
62.14353	Standards for Municipal Solid Waste Landfill Emissions	Y	
62.14353(b)	Landfills with Design Capacity equal to or greater than 2.5 million Mg and 2.5 million m ³ must comply with 40 CFR 60.752(b)	Y	
62.14354	Procedures, Test Methods, and Monitoring	Y	
62.14354(b)	A control system used to comply with 62.14353(b) must comply with 40 CFR 60.753, 60.754(d), 60.755, and 60.756.	Y	
62.14355	Reporting and Recordkeeping Requirements	Y	
62.14355(a)	Designated facilities must comply with 40 CFR 60.757 & 60.758	Y	
62.14355(b)	Notification requirement for increments of progress	Y	
62.14355(c)	Notification requirement for failure to meet an increment of progress	Y	
62.14356	Compliance Schedules and Increments of Progress	Y	
62.14356(a)	Increments of Progress	Y	
62.14356(a)(1)	Submit final control plan	Y	4/6/01

IV. Source-specific Applicable Requirements

Table IV – C
Source-specific Applicable Requirements
S8, S9, AND S11 - INTERNAL COMBUSTION ENGINES, LEAN BURN, LANDFILL GAS FIRED

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
62.14356 (a)(2)	Award contracts for construction of any new equipment or for modifications necessary to meet control plan	Y	12/6/01
62.14356 (a)(3)	Initiate on-site construction	Y	4/6/02
62.14356 (a)(4)	Complete on-site construction	Y	10/6/02
62.14356 (a)(5)	Achieve final compliance	Y	10/6/02
62.14356(b)	Final compliance must be achieved within 30 months of the first report showing NMOC emissions > 50 Mg/year	Y	10/6/02
62.14356(c)	Compliance schedules	Y	
62.14356 (c)(1)	Achieve increments of progress according to Table 3 of this section	Y	
BAAQMD Condition # 3017			
Part 1	Fuel restrictions (Cumulative Increase)	Y	
Part 2	Exhaust gas NOx concentration limit (BACT and PSD)	Y	
Part 3	Exhaust gas CO concentration limit (BACT and PSD)	Y	
Part 4	Exhaust gas NMOC concentration limit (Cumulative Increase)	Y	
Part 5	Annual source test (BACT, PSD, Cumulative Increase, and Regulations 8-34-114, 8-34-301.4, 8-34-412, 9-8-302.1 and 9-8-302.3)	Y	
Part 6	Landfill gas sulfur content limit and monitoring requirements (Regulations 2-6-503 and 9-1-302)	Y	
Part 7	Heat input limits (Regulation 2-1-301)	Y	
Part 8	Record keeping requirements for Parts 5 and 6 (Regulations 2-1-301 and 2-6-501)	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.

IV. Source-specific Applicable Requirements

Table IV – D
Source-specific Applicable Requirements
S18 - SOLVENT DISPOSAL TANK, V-105, 1000 GALLONS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 8 Rule 5	Storage of Organic Liquids (12/15/99)	Y	
8-5-301	Storage Tanks Smaller Than 150 m ³	Y	
8-5-329	Ozone Excess Day Prohibition	Y	
8-5-501	Records	Y	
BAAQMD Condition # 10713			
Part 1	Annual solvent throughput limit (Cumulative Increase)	Y	
Part 2	Record keeping for waste solvent throughput (Cumulative Increase)	Y	

Table IV – E
Source-specific Applicable Requirements
S21 - LANDFILL GAS CONDENSATE STORAGE TANK, 21000 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 # 16025			
Part 1	Annual condensate throughput limit (Cumulative Increase)	Y	
Part 2	Daily condensate throughput limit (Cumulative Increase)	Y	
Part 3	Restriction on materials stored in S-21 (Cumulative Increase)	Y	
Part 4	Limit on toxic compound emissions (Toxic Risk Management Policy)	Y	

IV. Source-specific Applicable Requirements

Table IV – E
Source-specific Applicable Requirements
S21 - LANDFILL GAS CONDENSATE STORAGE TANK, 21000 GALLONS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
Part 5	Notify the District if the maximum true vapor pressure exceeds 27.6 kPa (4.0 psia) (NSPS, Subpart Kb, 60.116b(d))	Y	
Part 6	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 # 347

FOR ~~S2, S3, S4, AND S5, INTERNAL COMBUSTION ENGINES, RICH BURN, LANDFILL GAS FIRED~~

1. ~~Oxides of Nitrogen (NO_x) emissions, calculated as NO₂, shall not exceed 3.4 g/hp-hr.~~
2. ~~Oxides of Nitrogen (NO_x) emissions, calculated as NO₂, shall not exceed 550 lb/day for sources ~~S 2, S 3, S 4 and S 5 combined.~~~~
3. ~~The operator shall not operate this engine without air injection to the thermal oxidizing reactor at a minimum flowrate of 140 SCFM and 2 psig.~~
4. ~~Each thermal oxidizing reactor shall achieve at least 90% carbon monoxide (CO) emissions reduction when compared to inlet CO concentration.~~
5. ~~Carbon Monoxide (CO) emissions shall not exceed 7.5 gr/hp-hr.~~
6. ~~Carbon Monoxide (CO) emissions shall not exceed 1200 lbs/day for sources ~~S 2, S 3, S 4 and S 5 combined.~~~~
7. ~~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.~~
8. ~~Upon request of the District, the operator shall conduct periodic source tests on all sources to assure compliance with conditions 1 through 6.~~

VI. Permit Conditions

The following conditions supersede the above conditions effective January 1, 1997:

- ~~(1) This engine shall be fired exclusively on landfill gas.~~
 - ~~(2) NO_x emissions, calculated as NO₂, shall not exceed 210 ppmv @ 15% O₂.~~
 - ~~(3) CO emissions shall not exceed 2000 ppmv @ 15% O₂.~~
 - ~~(4) Visible particulate emissions shall not exceed 0.5 on the Ringelmann chart.~~
1. The Internal Combustion Engines (S-3, S-4, and S-5) shall be fired on landfill gas exclusively. (Basis: Cumulative Increase)
 2. Nitrogen Oxide (NO_x) emissions from each Internal Combustion Engine (S-3, S-4, and S-5) shall not exceed 210 ppmv, expressed as NO₂, dry basis, corrected to 15% O₂. (Basis: BACT and Regulation 9-8-302.2)
 3. Carbon Monoxide (CO) emissions from each Internal Combustion Engine (S-3, S-4, and S-5) shall not exceed 740 ppmv, dry basis, corrected to 15% O₂. (Basis: BACT and Cumulative Increase)
 4. In order to demonstrate compliance with Parts 2 and 3 above; Regulation 8, Rule 34, Sections 114, 301.4, and 412; and Regulation 9, Rule 8, Sections 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-3, S-4, and S-5). Each annual source test shall determine the following:
 - a. landfill gas flow rate to each engine (dry basis);
 - b. concentrations (dry basis) of carbon dioxide (CO₂), nitrogen (N₂), oxygen (O₂), methane (CH₄), 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, CH₄, NMOC, THC, and O₂ in the exhaust gas from each engine;
 - e. the CH₄, NMOC, and THC destruction efficiencies achieved by each engine; and
 - f. the combustion temperature of each engine during the test period.

VI. Permit Conditions

The first annual source test for each engine shall be conducted by no later than October 1, 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 its approval of the source test procedures at least 14 days in advance of each source test. The Source Test Section shall be notified of the scheduled test date at least 7 days in advance of each source test. The source test report shall be submitted to the Compliance and Enforcement Division within 45 days of the test date. (Basis: BACT, Cumulative Increase, Regulations 8-34-114, 8-34-301.4, 8-34-412, 9-8-302.2, and 9-8-302.3)

5. 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 (H₂S). In order to demonstrate compliance with this Part, the Permit Holder shall measure the total sulfur content in collected landfill gas on a quarterly 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 quarterly thereafter. (Basis: Regulation 2-6-503 and 9-1-302)
6. The heat input to each Internal Combustion Engine (S-3, S-4, or S-5) shall not exceed 162 million BTU during any one day. The combined heat input to the three Internal Combustion Engines (S-3, S-4, and S-5) shall not exceed 177,390 million BTU during any rolling consecutive 12-month period. (Basis: Regulation 2-1-301)
7. In order to demonstrate compliance with Parts 5 and 6 above, the Permit Holder shall maintain the following records in a District approved log.
 - a. Daily records of operating hours for each engine (S-3, S-4, and S-5), summarized on a monthly basis,
 - b. Monthly records of the combined consumption of landfill gas at all engines (S-3, S-4, and S-5),
 - c. Monthly records of the average methane content of the landfill gas burned in the engines (S-3, S-4, and S-5),

VI. Permit Conditions

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 combined heat input to the engines (S-3, S-4, and S-5) 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 H₂S 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 and 2-6-501)

District comments on proposed changes to Condition # 347:

These conditions currently apply to four engines (S-2, S-3, S-4, and S-5). The S-2 engine has additional requirements due to a proposed condensate injection/oxidation system and will have separate conditions (see Condition # 16669 below). Condition # 347 will now apply only to three engines (S-3, S-4, and S-5).

The original (superceded) Parts 1 and 5 limited NO_x emissions to 3.4 grams/bhp-hour and CO emissions to 7.5 grams/bhp-hour based on BACT requirements. These emission rates are equivalent to:

*$(3.4 \text{ gNO}_x/\text{bhp-hr}) * (750 \text{ bhp}) * (24 \text{ hrs/day}) / (453.6 \text{ g/lb}) = 134.92 \text{ lbs NO}_x/\text{day/engine}$*

*$(7.5 \text{ g CO/bhp-hr}) * (750 \text{ bhp}) * (24 \text{ hrs/day}) / (453.6 \text{ g/lb}) = 297.62 \text{ lbs CO/day/engine}$*

For the four engines combined, the emission limits were 539.7 pounds/day of NO_x, 98.5 tons/year of NO_x, 1190.5 pounds/day of CO, and 217.3 tons/year of CO.

The superceded Part 2 limited NO_x emissions to 550 pounds/day and was intended to prevent NO_x emissions from exceeding 100 tons/year, which was the offset trigger level at the time. However, the emissions based on superceded Part 1 (at the maximum possible operating rate) cannot exceed 550 pounds/day. Therefore, the superceded Part 2 is not necessary and the District is proposing to delete it.

For CO, the superceded Part 6 limited CO emissions to 1200 pounds/day and was the level at which an air quality impact analysis was conducted. This analysis showed that CO emissions would not interfere with attainment or maintenance of the NAAQS for CO. Therefore, CO offsets were not required. Since the maximum possible emissions, based on the CO limit of 7.5 grams/bhp-hour, cannot exceed 1200

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pounds/day, the superceded Part 6 is not necessary and the District is proposing to delete it.

Superceded Parts 3 and 4 were originally imposed to ensure compliance with the Part 5 CO limit. These operating restrictions were later found to be unnecessary and were deleted. Superceded Parts 7 and 8 are being replaced with new, more specific conditions as identified in proposed Parts 4, 6, and 7.

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% O₂ and 9-8-302.3 limits CO emissions to 2000 ppmv, dry at 15% O₂. 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 (2) superceded Part 1. The District is proposing to restate this limit in the proposed new Part 2.

Although the 9-8-302.3 CO limit is less stringent than the previous BACT limit, the District permit conditions were amended such that Part (2) superceded Part 5. This condition change would have the effect of increasing CO emissions to:

(17.6 g CO/bhp-hr)(750 bhp)*(24 hrs/day)/(453.6 g/lb) = 698.42 lbs CO/day/engine
For all four engines combined, the new CO emissions would be 2793.7 lbs/day and 509.8 tons/year. This condition change would have resulted in CO emission increases of 1603 lbs/day and 292.5 tons/year of CO. Such a condition change could not be authorized without triggering a PSD review. Since no PSD review was conducted and no CO emission increases were attributed to the facility pursuant to the implementation of the new Regulation 9, Rule 8 limits, the District's amended Condition #347, Part (3) is not valid. The District is now proposing to delete this Part (3) and to replace it with the equivalent of the original valid limit of 7.5 grams CO/bhp-hour.*

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 scdf of flue gas per scdf of landfill

VI. Permit Conditions

gas. Under these conditions, the emission limit of 7.5 g CO/bhp-hour is equivalent to 740 ppmv of CO, dry at 15% O₂.

There is no basis for requiring the Ringelmann 0.5 limit that is stated in amended Part (4). Therefore the District is proposing to delete this limit.

The proposed new Part 4 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 5 is necessary to demonstrate compliance with the applicable SO₂ limit in Regulation 9, Rule 1.

*The proposed new Part 6 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 #30487. The proposed new Part 7 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 NO_x and CO concentration limits, NO_x and CO emissions will not exceed the original maximum permitted emission rates (134.92 lbs NO_x/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% O₂)/(5.95 scf @ 0% O₂)*(210 scf NO_x/10⁶ scf @ 15% O₂)/(386.8 scf NO_x/lbmol)*(46.01 lbs 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% O₂)/(5.95 scf @ 0% O₂)*(740 scf CO/10⁶ scf @ 15% O₂)/(386.8 scf CO/lbmol)*(28.01 lbs CO/lbmol) = 288.1 lbs CO/day/engine*

Condition # 2373

FOR S8 AND S9, INTERNAL COMBUSTION ENGINES, LEAN BURN, LANDFILL GAS FIRED

~~1. NO_x emissions shall not exceed 0.90 g/BHP hr.~~

~~2. CO emissions shall not exceed 3.0 g/BHP hr.~~

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Condition # 3017

FOR S-11, INTERNAL COMBUSTION ENGINE, LEAN BURN, LANDFILL GAS FIRED

1. ~~NO_x emissions shall not exceed 0.90 gm/BHP hr.~~
2. ~~CO emissions shall not exceed 3.0 gm/BHP hr.~~
3. ~~NMHC emissions shall not exceed 1.0 gm/BHP hr.~~
4. ~~The Permit holder shall contact the District Source Test group and Permit Services Division at least 10 days prior to any source test, to allow for District personnel to observe.~~
5. ~~The landfill gas flare shall not be fired when all 7 engines are operating.~~
6. ~~When one or more of the engines are not operating, the flare shall fire excess landfill gas.~~

Condition # 3017

FOR S8, S9, AND S-11, INTERNAL COMBUSTION ENGINES, LEAN BURN, LANDFILL GAS FIRED

1. The Internal Combustion Engines (S-8, S-9 and S-11) shall be fired on landfill gas exclusively. (Basis: Cumulative Increase)
2. Nitrogen Oxide (NO_x) emissions, from each Internal Combustion Engine (S-8, S-9 and S-11) shall not exceed 53 ppmv, expressed as NO₂, dry basis, corrected to 15% O₂. (Basis: BACT and PSD)
3. Carbon Monoxide (CO) emissions from each Internal Combustion Engine (S-8, S-9 and S-11) shall not exceed 289 ppmv, dry basis, corrected to 15% O₂. (Basis: BACT and PSD)
4. Total non-methane organic compounds (NMOC) emissions, from the S-11 Internal Combustion Engine shall not exceed 533 ppmv, expressed methane, dry basis, corrected to 3% O₂. Effective July 1, 2002, this limit shall be replaced by the NMOC limits listed in Regulation 8-34-301.4. (Basis: Cumulative Increase)

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5. In order to demonstrate compliance with Parts 2, 3 and 4 above; Regulation 8, Rule 34, Sections 114, 301.4, and 412; Regulation 9, Rule 8, Sections 302.1 and 302.3; the Permit Holder shall ensure that a District approved source test is conducted annually on each Internal Combustion Engine (S-8, S-9 and S-11). Each annual source test shall determine the following:
- a. landfill gas flow rate to each engine (dry basis);
 - b. concentrations (dry basis) of carbon dioxide (CO₂), nitrogen (N₂), oxygen (O₂), methane (CH₄), 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, CH₄, NMOC, THC, and O₂ in the exhaust gas from each engine;
 - e. the CH₄, 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 October 1, 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 its approval of the source test procedures at least 14 days in advance of each source test. The Source Test Section shall be notified of the scheduled test date at least 7 days in advance of each source test. The source test report shall be submitted to the Compliance and Enforcement Division within 45 days of the test date. (Basis: BACT, PSD, Cumulative Increase, Regulations 8-34-114, 8-34-301.4, 8-34-412, 9-8-302.1, and 9-8-302.3)
6. 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 (H₂S). In order to demonstrate compliance with this Part, the Permit Holder shall measure the total sulfur content in collected landfill gas on a quarterly 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

VI. Permit Conditions

first draeger tube test no later than 3 months after the issue date of the MFR Permit and quarterly thereafter. (Basis: Regulation 2-6-503 and 9-1-302)

7. The heat input to each Internal Combustion Engine (S-8, S-9 and S-11) shall not exceed 324 million BTU during any one day. The combined heat input to the three Internal Combustion Engines (S-8, S-9 and S-11) shall not exceed 354,780 million BTU during any rolling consecutive 12-month period. (Basis: Regulation 2-1-301)
8. In order to demonstrate compliance with Parts 6 and 7 above, the Permit Holder shall maintain the following records in a District approved log.
 - a. Daily records of operating hours for each engine (S-8, S-9 and S-11), summarized on a monthly basis,
 - b. Monthly records of the combined consumption of landfill gas at all engines (S-8, S-9 and S-11),
 - c. Monthly records of the average methane content of the landfill gas burned in the engines (S-8, S-9 and S-11),
 - 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 combined heat input to the engines (S-8, S-9 and S-11) 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 H₂S 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 and 2-6-501)

District comments on proposed changes to Conditions # 2373 and # 3017:

Since the emission limits for S-8, S-9, and S-11 are the same and all three engines were subject to a PSD analysis, these conditions will be combined into the single Condition # 3017 for S-8, S-9, and S-11.

The NO_x and CO emission limits (0.9 grams NO_x/bhp-hr and 3.0 grams CO/bhp-hr) listed in Condition # 2373, Parts 1 and 2 and Condition # 3017, Parts 1 and 2 were used to calculate maximum emissions from each of the three engines (S-8, S-9, and S-11 at 1525 hp each). The NO_x and CO emission increases from these engines

VI. Permit Conditions

required PSD Impact Analyses, which were conducted under Applications # 1273 and # 2592. The emission rates used in the PSD Impact Analyses were 2.9 pounds/hour of NO_x per engine and 9.6 pounds/hour of CO per engine. These hourly emission rates will be used to establish equivalent exhaust gas concentration limits.

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 scf of flue gas per scf of landfill gas. Under these conditions, the NO_x and CO hourly emission rates used in the PSD Analyses are equivalent to:

$$\begin{aligned} & (2.9 \text{ lbs NO}_x/\text{hour})/(13.5 \text{ E6 BTU/hour})*(456 \text{ BTU/scf LFG})/(46.01 \text{ lbs NO}_x/\text{lbmol})* \\ & (386.8 \text{ scf NO}_x/\text{lbmol})/(4.396 \text{ scf flue/scf LFG})*(5.95 \text{ scf @ 15\% O}_2)/(20.95 \text{ scf @ 0\%} \\ & \text{O}_2)*10^6 = 53.2 \text{ ppmv of NO}_x \text{ in flue gas at 15\% O}_2, \text{ dry basis} \\ & (9.6 \text{ lbs CO/hour})/(13.5 \text{ E6 BTU/hour})*(456 \text{ BTU/scf LFG})/(28.01 \text{ lbs CO/lbmol})* \\ & (386.8 \text{ scf CO/lbmol})/(4.396 \text{ scf flue/scf LFG})*(5.95 \text{ scf @ 15\% O}_2)/(20.95 \text{ scf @ 0\%} \\ & \text{O}_2)*10^6 = 289.3 \text{ ppmv of CO in flue gas at 15\% O}_2, \text{ dry basis} \end{aligned}$$

Part 3 of Condition # 3017 limits NMHC emissions from S-11 to 1.0 grams/bhp-hr. The POC emissions attributed to the Plant Cumulative Increase were 80.6 pounds/day and 14.7 tons/year. These emission rates are equivalent to an exhaust gas concentration of:

$$\begin{aligned} & (80.6 \text{ lbs NMHC/day})/(24 \text{ hours/day})/(13.5 \text{ E6 BTU/hour})*(456 \text{ BTU/scf LFG})/ \\ & (16.04 \text{ lbs NMHC as methane/lbmol})*(386.8 \text{ scf NMHC/lbmol})/ \\ & (4.396 \text{ scf flue/scf LFG})*(17.95 \text{ scf @ 3\% O}_2)/(20.95 \text{ scf @ 0\% O}_2)*10^6 \\ & = 533.2 \text{ ppmv of NMHC as methane in flue gas at 3\% O}_2, \text{ dry basis} \end{aligned}$$

Effective 7/1/02, Regulation 8-34-301.4 will limit the emissions from S-11 to either 98% control of NMOC or to an exhaust gas concentration limit of 120 ppmv of NMOC as methane at 3% O₂, dry basis. This limit is more stringent than the equivalent concentration limit currently in effect for S-11. Language will be added to Part 3 to clarify that 8-34-301.4 will replace the Part 3 limit effective 7/1/02.

The District is proposing to replace Part 4 of Condition # 3017 with the more specific testing requirements in Part 5. These tests are 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.

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The District is proposing to delete Parts 5 and 6 of Conditions 3017 because the flare was permanently shut down and removed from this facility.

The proposed new Part 6 is necessary to demonstrate compliance with the applicable SO₂ limit in Regulation 9, Rule 1.

The proposed new Part 7 describes the capacity of the engines based the maximum operating rates (13.5 MM BTU/hour) reported on the data forms submitted for Applications # 1273 and # 2592.

Condition # 10713

For S18, SOLVENT DISPOSAL TANK, V-105

1. The total throughput of waste solvent shall not exceed 7,300 gallons in any consecutive 12 month period. (Basis: Cumulative Increase)
2. Throughput of waste solvent shall be recorded quarterly in a District approved logbook. These records shall be retained for a period of at least two years from the date of entry. The logs shall be kept on site and made readily available to District staff upon request. (Basis: Cumulative Increase)

Condition # 16025

For S21, LANDFILL GAS CONDENSATE STORAGE TANK, 21000 GALLONS

~~Plant #11670, Gas Recovery Systems~~

~~Application #18366~~

~~Conditions for S-21, Landfill Gas Condensate Storage Tank, 21,000 gallon capacity~~

~~Abated by A-5, Activated Carbon Adsorption System~~

1. Total liquid throughput at S-21, Landfill Gas Condensate Storage Tank, shall not exceed 357,000 gallons during any consecutive 12-month period. (Basis: ~~e~~Cumulative ~~i~~ncrease)
2. Total liquid throughput for S-21 shall not exceed 5,000 gallons during any calendar

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- day. (Basis: ~~e~~Cumulative ~~i~~Increase)
3. Only landfill gas condensate shall be stored in tank S-21. (Basis: ~~e~~Cumulative ~~i~~Increase)
 4. The storage of landfill gas condensate at S-21 ~~may~~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 screen~~Toxic Risk Management Policy)
 - ~~5. The S 21, Landfill Gas Condensate Storage Tank, shall be abated by A 5, Activated Carbon Adsorption System, with an overall collection and abatementremoval efficiency of at least 95% by weight for NMOC. (Basis: eCumulative iIncrease, Regulation 8 5 304.1)~~
 5. 6. If the maximum true vapor pressure of the landfill gas condensate should exceed 27.6 kPa (4.0 psia), Gas Recovery Systems must notify the District's Compliance and Enforcement Division of this exceedance within 30 days and must immediately begin maintaining records as specified in the New Source Performance Standards, Subpart Kb, §60.116b(d). (Basis: New Source Performance Standards, Subpart Kb, §60.116b(d))
 6. 7. In order to demonstrate compliance with the above conditions, the owner/operator of tank S-21 shall maintain the following records in a District approved log:
 - a. Type of liquid stored and the dates of storage.
 - b. The total daily throughput of liquid, summarized on a monthly basis.
 - c. The previous 12-month throughput, summarized on a monthly basis.
 - ~~d. Records of replacement of activated carbon in the Activated Carbon Adsorption System, A 5.~~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 record keeping requirements shall not replace the record keeping requirements contained in any applicable District Regulations.
(Basis: ~~e~~Cumulative ~~i~~Increase, and Regulation 2-6-501)
 - ~~8. Upon startup of S 21, the Condensate Storage Tanks, S 19 and S 20, must be permanently removed from service. (Basis: cumulative increase)~~

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District comments on proposed changes to Condition # 16025:

Unnecessary language was deleted. The basis for Part 4 was clarified. Since the true vapor pressure of the oil layer is less than 0.5 psia, S-21 is not subject to Regulation 8-5. Therefore, A-5 is optional but not required and the corresponding Part 5 and Part 7 d was deleted accordingly. Part 8 was deleted, because the District has confirmed that S-19 and S-20 have been permanently shut down.

Condition # 16669

S2, INTERNAL COMBUSTION ENGINE, RICH BURN, LANDFILL GAS FIRED; WITH LANDFILL GAS CONDENSATE INJECTION/OXIDATION SYSTEM

~~S-2 (Internal Combustion Engine with Landfill Gas Condensate Injection/Oxidation System)
S-3, S-4 and S-5 (Internal Combustion Engines)~~

1. The sources ~~S-2, S-3, S-4 and S-5~~ Internal Combustion Engine (S-2) shall be fired exclusively on landfill gas. ~~{Basis: Plant Cumulative Increase}~~
2. ~~Oxides of nitrogen (NO_x) emissions, calculated as NO₂, shall not exceed 550 lb/day for sources S-2, S-3, S-4 and S-5 combined. {Basis: Plant Cumulative Increase}~~
32. Nitrogen Oxide (NO_x) emissions from the S-2 Internal Combustion Engine, S-3, S-4 and S-5, calculated as NO₂, shall not exceed 210 ppmv, expressed as NO₂, dry basis, @corrected to 15% O₂. {Basis: ~~Best Available Control Technology~~ BACT and Regulation 9-8-302.2}
4. ~~Carbon monoxide (CO) emissions from S-2, S-3, S-4 and S-5 shall not exceed 1200 lb/day for sources S-2, S-3, S-4 and S-5 combined. {Basis: Plant Cumulative Increase}~~
53. Carbon Monoxide (CO) emissions from the S-2 Internal Combustion Engine, S-3, S-4 and S-5 shall not exceed 965740 ppmv, dry basis, corrected to @ 15% O₂. {Basis: ~~Best Available Control Technology~~ BACT and Cumulative Increase}
4. In order to demonstrate compliance with Parts 2 and 3 above; Regulation 8, Rule

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34, Sections 114, 301.4, and 412; and Regulation 9, Rule 8, Sections 302.2 and 302.3; the Permit Holder shall ensure that a District approved source test is conducted annually on the Internal Combustion Engine (S-2). Each annual source test shall determine the following:

- a. landfill gas flow rate to the engine (dry basis);
- b. concentrations (dry basis) of carbon dioxide (CO₂), nitrogen (N₂), oxygen (O₂), methane (CH₄), total non-methane organic compounds (NMOC), and total hydrocarbons (THC) in the landfill gas;
- c. exhaust gas flow rate from the engine (dry basis);
- d. concentrations (dry basis) of NO_x, CO, CH₄, NMOC, THC, and O₂ in the exhaust gas from the engine;
- e. the CH₄, NMOC, and THC destruction efficiencies achieved by the engine;
and
- f. the combustion temperature of the engine during the test period.

The first annual source test for the engine shall be conducted by no later than October 1, 2002 or no later than 12 months after the issue date of the MFR Permit, whichever date occurs first. Subsequent source tests for the 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 its approval of the source test procedures at least 14 days in advance of each source test. The Source Test Section shall be notified of the scheduled test date at least 7 days in advance of each source test. The source test report shall be submitted to the Compliance and Enforcement Division within 45 days of the test date. (Basis: BACT, Cumulative Increase, Regulations 8-34-114, 8-34-301.4, 8-34-412, 9-8-302.2, and 9-8-302.3)

5. 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 Engine. The concentration of total reduced sulfur compounds in the collected landfill gas shall not exceed 1300 ppmv (dry), reported as hydrogen sulfide (H₂S). In order to demonstrate compliance with this Part, the Permit Holder shall measure the total sulfur content in collected landfill gas on a quarterly 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 quarterly thereafter. (Basis: Regulation 2-6-503 and 9-1-302)

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6. The heat input to the Internal Combustion Engine (S-2) shall not exceed 162 million BTU during any one day. The heat input to the Internal Combustion Engine (S-2) shall not exceed 59,130 million BTU during any rolling consecutive 12-month period. (Basis: Regulation 2-1-301)
7. In order to demonstrate compliance with Parts 5 and 6 above, the Permit Holder shall maintain the following records in a District approved log.
- a. Daily records of operating hours for the S-2 Internal Combustion Engine, summarized on a monthly basis,
 - b. Monthly records of the consumption of landfill gas at the S-2 Internal Combustion Engine,
 - c. Monthly records of the average methane content of the landfill gas burned in the S-2 Internal Combustion Engine,
 - 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 the S-2 Internal Combustion Engine 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 H₂S 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 and 2-6-501)

68. Upon start-up of the Landfill Gas Condensate Injection/Oxidation System for S-2, ~~the volatile precursor organic compound (VPOC) emissions from the Landfill Gas eCondensate iInjection/eOxidation sSystem (S-2)~~ shall not exceed 9 pounds per day. ~~The VOC emissions shall be calculated by using the VOC ppm w/w of the condensate, the throughput of condensate at the condensate injection/oxidation system and the VOC destruction efficiency of the condensate injection/oxidation system.~~ POC emissions shall be calculated using the following equation:
- $$\text{POC} = \frac{Q * D * CC}{10^6 * (100 - E)} = 8.5E-8 * Q * CC * (100 - E)$$
- Where,
- POC = POC emissions in pounds/day
- Q = Flow rate of landfill gas condensate to the injection system (gallons/day) recorded pursuant to Part 9

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- D = Density of the landfill gas condensate (8.5 pounds/gallon)
CC = Maximum concentration of volatile organic compounds in the landfill gas condensate (ppm by weight) recorded pursuant to Part 10
E = NMOC destruction efficiency of the condensate oxidation system (percent by weight) determined pursuant to Part 11

In order to demonstrate compliance with this part, the Permit Holder shall record the calculated POC emissions (pounds/day) on a daily basis 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: Plant-Cumulative Increase})

- ~~7. 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. [Basis: Plant Cumulative Increase]~~
- ~~8. Upon request of the District, the operator shall conduct periodic source tests on all sources (S-2, S-3, S-4 and S-5) to assure compliance with conditions 2, 3, 4 and 5. [Basis: Plant Cumulative Increase]~~
9. To demonstrate compliance with condition 6, the VOC ppm w/w and daily throughput of the condensate at the condensate injection/oxidation system and the destruction efficiency of the condensate injection/oxidation system shall be maintained in a District approved log. Upon start-up on the Landfill Gas Condensate Injection/Oxidation System for S-2, the Permit Holder shall record the total flow rate of landfill gas condensate to the injection system on a daily basis (gallons/day) in a District approved log. These records shall be kept on site and made available for District inspection for a period of at least 24 months 5 years from the date on which a record is made. ({Basis: Plant-Cumulative Increase})
10. Upon start-up on the Landfill Gas Condensate Injection/Oxidation System for S-2, the Permit Holder shall collect and analyze a sample of the aqueous portion of the landfill gas condensate on a quarterly basis. The maximum detected concentration (ppm by weight) of any individual volatile organic compound and the sum of all maximum concentrations of individual volatile organic compounds shall be recorded in a District approved log on a quarterly basis. 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)

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- ~~1011.~~ Within 30 days of start-up of the Landfill Gas eCondensate iInjection/eOxidation sSystem, the ~~operator~~ Permit Holder shall conduct a District approved source test to ~~find out~~ determine the non-methane organic compound (NMOC) destruction efficiency of achieved by the eCondensate iInjection/eOxidation sSystem. The source test shall determine the following:
- a. flow rate of landfill gas condensate to the injection system
 - b. total concentration (by weight) of volatile organic compounds in the landfill gas condensate
 - c. exhaust gas flow rate (dry basis) from the oxidation system
 - d. concentration of NMOCs (dry basis) in the exhaust gas from the oxidation system
 - e. NMOC destruction efficiency achieved by the oxidation system
- The Source Test Section of the District shall be contacted to obtain its approval of the source test procedures at least 14 days in advance of the source test. The Source Test Section shall be notified of the scheduled test date at least 7 days in advance of the source test. The source test report shall be submitted to the Compliance and Enforcement Division within 45 days of the test date.- (Basis: Plant Cumulative Increase)}
- ~~11.~~ ~~Within 30 days of start up of the condensate injection/oxidation system, the operator shall conduct a District approved source test to demonstrate compliance of conditions 3 and 5 with the condensate injection/oxidation system in operation. (Basis: Best Available Control Technology)}~~

District comments on proposed changes to Condition #16669:

This condition is currently a future condition subject to the installation of the condensate injection/oxidation system at S-2. This condition will become a current condition with some parts that will only become effective upon start-up of the condensate injection/oxidation system. Also, this condition is a future condition for S-2, S-3, S-4, and S-5. The conditions for S-3, S-4, and S-5 were separated from the conditions for S-2 for clarity. Condition # 16669 will now only apply to S-2 and not S-3, S-4, or S-5. Condition # 16669 was derived from Permit Condition #347 and many of the changes are the same as those described above for Condition # 347.

Part 2 was deleted because the exhaust gas concentration limit of 210 ppmv NOx at

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15% O₂ and the maximum heat input limit of 162 MM BTU/day for each engine (S-2, S-3, S-4, and S-5) will ensure compliance with the combined engine emission limit of 550 pounds/day of NO_x.

Part 3 was renumbered and is now Part 2. This condition now applies only to S-2. References to the other engines were deleted.

Part 4 was deleted because the exhaust gas concentration limit of 740 ppmv CO at 15% O₂ and the maximum heat input limit of 162 MM BTU/day for each engine (S-2, S-3, S-4, and S-5) will ensure compliance with the combined engine emission limit of 1200 pounds/day of CO.

Part 5 was renumbered and is now Part 3. This condition now applies only to S-2. References to the other engines were deleted. The District could find no justification for raising the CO limit from 740 ppmv CO at 15% O₂ to 965 ppmv of CO at 15% O₂. Therefore, the CO concentration limit was returned to the equivalent of the original BACT emission rate of 7.5 grams/bhp-hour.

The proposed new Part 4 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 5 is necessary to demonstrate compliance with the applicable SO₂ limit in Regulation 9, Rule 1.

*The proposed new Part 6 describes the capacity of the engine based the maximum operating rates (15,000 scf LFG/hour * 450 BTU/scf = 6.75 MM BTU/hour) reported on the data form submitted for Application #30487. The proposed new Part 7 requires records to demonstrate compliance with these capacities based on measured landfill gas flow rates and average methane content. These records replace the records required by the old Part 7.*

The source testing requirements of the old Parts 8 and 11 were replaced by the new Part 4.

For clarity, the Part 9 record keeping requirements for condensate flow rate and condensate VOC content were split into two Parts (Part 9 for condensate flow rate

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records and Part 10 for condensate VOC Content analyses). The current condition specified no testing frequency for the VOC Content. The condensate VOC Content is not expected to vary significantly. Therefore, quarterly VOC Content testing was deemed adequate.

Part 10 was renumbered and is now Part 11. The condition revisions clarify that the destruction efficiency should be for total NMOCs. The information required to determine this destruction efficiency was clarified in subparts a-e. The necessary notification and reporting requirements were added.

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
S2 - INTERNAL COMBUSTION ENGINE, RICH BURN, LANDFILL GAS FIRED; WITH LANDFILL GAS
CONDENSATE INJECTION/OXIDATION SYSTEM

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 for 3 minutes in any hour		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 # 16669, Part 4.e.	P/A	Annual Source Test
TOC	SIP BAAQMD 8-34-114	Y ¹		90% removal by weight	BAAQMD Condition # 16669, Part 4.e.	P/A	Annual Source Test

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S2 - INTERNAL COMBUSTION ENGINE, RICH BURN, LANDFILL GAS FIRED; WITH LANDFILL GAS
CONDENSATE INJECTION/OXIDATION SYSTEM

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 Compounds (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 8-34-412 and 8-34-501.4 and BAAQMD Condition # 16669, Part 4.e.	P/A	Initial and Annual Source Tests and Records
NMOC	40 CFR 60.752(b) (2)(iii)(B)	Y	10/6/02	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
POC	BAAQMD Condition # 16669, Part 8	Y	Upon start-up of Condensate Injection/Oxidation System at S-2	9 pounds per day	BAAQMD Condition # 16669, Parts 8, 9, 10, and 11	P/D,Q,I	Daily Records, Quarterly Condensate Testing, Initial Destruction Efficiency Testing
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	

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S2 - INTERNAL COMBUSTION ENGINE, RICH BURN, LANDFILL GAS FIRED; WITH LANDFILL GAS
CONDENSATE INJECTION/OXIDATION SYSTEM

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO ₂	BAAQMD 9-1-302	Y		≤ 300 ppm (dry)	BAAQMD Condition # 16669, Part 5	P/Q	Sulfur Analysis of Landfill Gas
H ₂ S	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	
Total Sulfur Content in Landfill Gas	BAAQMD Condition # 16669, Part 5	Y		≤ 1300 ppmv dry, expressed as H ₂ S	BAAQMD Condition # 16669, Part 5	P/Q	Sulfur Analysis of Landfill Gas
NO _x	BAAQMD 9-8-302.2 and BAAQMD Condition # 16669, Part 2	Y		≤ 210 ppmv dry, expressed as NO ₂ , corrected to 15% O ₂	BAAQMD Condition # 16669, Part 4.d.	P/A	Annual Source Test
CO	BAAQMD 9-8-302.3	Y		≤ 2000 ppmv dry, corrected to 15% O ₂	BAAQMD Condition # 16669, Part 4.d.	P/A	Annual Source Test
CO	BAAQMD Condition # 16669, Part 3	Y		≤ 740 ppmv dry, corrected to 15% O ₂	BAAQMD Condition # 16669, Part 4.d.	P/A	Annual Source Test

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S2 - INTERNAL COMBUSTION ENGINE, RICH BURN, LANDFILL GAS FIRED; WITH LANDFILL GAS
CONDENSATE INJECTION/OXIDATION SYSTEM

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Heat Input	BAAQMD Condition # 16669, Part 6	Y		162 MM BTU per day and 59,130 MM BTU per 12-month period	BAAQMD Condition # 16669, Part 7.a.-e.	P/D,M	Records
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 ¹		12 hours/calendar month	SIP 8-34-501.2	P/D	Records
Emission Control System Startup Shutdown or Malfunction	40 CFR 60.755(e)	Y	10/6/02	≤ 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
Temperature of Combustion Zone		N	7/1/02	Temperature limit will be established in a permit condition during review of Collection and Control System Design Plan, which was due 12/31/00	BAAQMD 8-34-501.3 and 8-34-507 (effective 7/1/02)	C	Temperature sensor and continuous recorder; effective 7/1/02

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S2 - INTERNAL COMBUSTION ENGINE, RICH BURN, LANDFILL GAS FIRED; WITH LANDFILL GAS
CONDENSATE INJECTION/OXIDATION SYSTEM

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Combustion Temperature	40 CFR 60.758(c)(1)(i)	Y	4/4/03	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	N		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	10/6/02	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

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S2 - INTERNAL COMBUSTION ENGINE, RICH BURN, LANDFILL GAS FIRED; WITH LANDFILL GAS
CONDENSATE INJECTION/OXIDATION SYSTEM

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Periods of Inoperation for Parametric Monitors	BAAQMD 1-523.2	Y	7/1/02	15 consecutive days/incident and 30 calendar days/12 month period	BAAQMD 1-523.4	P/D	Records of occurrence and duration
Continuous Monitors	40 CFR 60.13(e)	Y		Requires Continuous Operation except for breakdowns, repairs, calibration, and required span adjustments	40 CFR 60.7(b)	P/D	Records of occurrence and duration

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 VII – B
Applicable Limits and Compliance Monitoring Requirements
S3, S4 AND S5 - INTERNAL COMBUSTION ENGINES, RICH BURN, 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 for 3 minutes in any hour		N	
FP	BAAQMD 6-310	Y		0.15 grains/dscf		N	

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S3, S4 AND S5 - INTERNAL COMBUSTION ENGINES, RICH BURN, 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
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 # 347, Part 4.e.	P/A	Annual Source Test
TOC	SIP BAAQMD 8-34-114	Y ¹		90% removal by weight	BAAQMD Condition # 347, Part 4.e.	P/A	Annual Source Test
Non-Methane Organic Compounds (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 8-34-412 and 8-34-501.4 and BAAQMD Condition # 347, Part 4.e.	P/A	Initial and Annual Source Tests and Records
NMOC	40 CFR 60.752(b)(2)(iii)(B)	Y	10/6/02	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

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S3, S4 AND S5 - INTERNAL COMBUSTION ENGINES, RICH BURN, 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
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 # 347, Part 5	P/Q	Sulfur Analysis of Landfill Gas
H ₂ S	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	
Total Sulfur Content in Landfill Gas	BAAQMD Condition # 347, Part 5	Y		≤ 1300 ppmv dry, expressed as H ₂ S	BAAQMD Condition #347, Part 5	P/Q	Sulfur Analysis of Landfill Gas
NO _x	BAAQMD 9-8-302.2 and BAAQMD Condition # 347, Part 2	Y		≤ 210 ppmv dry, expressed as NO ₂ , corrected to 15% O ₂	BAAQMD Condition # 347, Part 4.d.	P/A	Annual Source Test
CO	BAAQMD 9-8-302.3	Y		≤ 2000 ppmv dry, corrected to 15% O ₂	BAAQMD Condition # 347, Part 4.d.	P/A	Annual Source Test

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S3, S4 AND S5 - INTERNAL COMBUSTION ENGINES, RICH BURN, 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
CO	BAAQMD Condition # 347, Part 3	Y		≤ 740 ppmv dry, corrected to 15% O ₂	BAAQMD Condition # 347, Part 4.d.	P/A	Annual Source Test
Heat Input	BAAQMD Condition # 347, Part 6	Y		162 MM BTU per day for each engine and 177,390 MM BTU per 12-month period for 3 engines combined	BAAQMD Condition # 347, Part 7.a.-e.	P/D,M	Records
Emission Control System Shutdown Time	BAAQMD 8-34-113.2	N		240 hours/year	BAAQMD 8-34-501.2 and BAAQMD Condition # 347, Part 7.a.	P/D	Records
Emission Control System Shutdown Time	SIP 8-34-113.2	Y ¹		12 hours/calendar month	SIP 8-34-501.2	P/D	Records
Emission Control System Startup Shutdown or Malfunction	40 CFR 60.755(e)	Y	10/6/02	≤ 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

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S3, S4 AND S5 - INTERNAL COMBUSTION ENGINES, RICH BURN, 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
Temperature of Combustion Zone		N	7/1/02	Temperature limit will be established in a permit condition during review of Collection and Control System Design Plan, which was due 12/31/00	BAAQMD 8-34-501.3 and 8-34-507 (effective 7/1/02)	C	Temperature sensor and continuous recorder; effective 7/1/02
Combustion Temperature	40 CFR 60.758(c)(1)(i)	Y	4/4/03	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	N		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 – B
Applicable Limits and Compliance Monitoring Requirements
S3, S4 AND S5 - INTERNAL COMBUSTION ENGINES, RICH BURN, 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	10/6/02	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 Inoperation for Parametric Monitors	BAAQMD 1-523.2	Y	7/1/02	15 consecutive days/incident and 30 calendar days/12 month period	BAAQMD 1-523.4	P/D	Records of occurrence and duration
Continuous Monitors	40 CFR 60.13(e)	Y		Requires Continuous Operation except for breakdowns, repairs, calibration, and required span adjustments	40 CFR 60.7(b)	P/D	Records of occurrence and duration

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 VII – C
Applicable Limits and Compliance Monitoring Requirements
S8, S9 AND S11 - INTERNAL COMBUSTION ENGINES, LEAN BURN, LANDFILL GAS FIRED

VII. Applicable Limits and Compliance Monitoring Requirements

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 for 3 minutes in any hour		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 # 3017, Part 5.e.	P/A	Annual Source Test
TOC	SIP 8-34-114	Y ¹		90% removal by weight	BAAQMD Condition # 3017, Part 5.e.	P/A	Annual Source Test
Non-Methane Organic Compounds (NMOC)	BAAQMD 8-34-301.4b and BAAQMD Condition # 3017, Part 4	N	7/1/02	98% removal by weight OR < 120 ppmv dry @ 3% O ₂ , expressed as methane	BAAQMD 8-34-412 and 8-34-501.4 and BAAQMD Condition # 3017, Part 5	P/A	Initial and Annual Source Tests and Records
NMOC	40 CFR 60.752(b)(2)(iii)(B)	Y	10/6/02	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

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – C
Applicable Limits and Compliance Monitoring Requirements
S8, S9 AND S11 - INTERNAL COMBUSTION ENGINES, LEAN BURN, 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	BAAQMD Condition # 3017, Part 4	Y		≤ 533 ppmv dry, expressed as methane, corrected to 3% O ₂	BAAQMD Condition # 3017, Part 5.d.	P/A	Annual Source Test
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 # 3017, Part 6	P/Q	Sulfur Analysis of Landfill Gas
H ₂ S	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	
Total Sulfur Content in Landfill Gas	BAAQMD Condition # 3017, Part 6	Y		≤ 1300 ppmv dry, expressed as H ₂ S	BAAQMD Condition # 3017, Part 6	P/Q	Sulfur Analysis of Landfill Gas
NO _x	BAAQMD 9-8-302.1	Y		≤ 140 ppmv dry, expressed as NO ₂ , corrected to 15% O ₂	BAAQMD Condition # 3017, Part 5.d.	P/A	Annual Source Test
NO _x	BAAQMD Condition # 3017, Part 2	Y		≤ 53 ppmv dry, expressed as NO ₂ , corrected to 15% O ₂	BAAQMD Condition # 3017, Part 5.d.	P/A	Annual Source Test

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – C
Applicable Limits and Compliance Monitoring Requirements
S8, S9 AND S11 - INTERNAL COMBUSTION ENGINES, LEAN BURN, 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
CO	BAAQMD 9-8-302.3	Y		≤ 2000 ppmv dry, corrected to 15% O ₂	BAAQMD Condition # 3017, Part 5.d.	P/A	Annual Source Test
CO	BAAQMD Condition # 3017, Part 3	Y		≤ 289 ppmv dry, corrected to 15% O ₂	BAAQMD Condition # 3017, Part 5.d.	P/A	Annual Source Test
Heat Input	BAAQMD Condition # 3017, Part 7	Y		324 MM BTU per day for each engine and 354,780 MM BTU per 12-month period for 3 engines combined	BAAQMD Condition # 3017, Part 8	P/D,M	Records
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 ¹		12 hours/calendar month	SIP 8-34-501.2	P/D	Records
Emission Control System Startup Shutdown or Malfunction	40 CFR 60.755(e)	Y	10/6/02	≤ 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

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – C
Applicable Limits and Compliance Monitoring Requirements
S8, S9 AND S11 - INTERNAL COMBUSTION ENGINES, LEAN BURN, 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
Temperature of Combustion Zone		N	7/1/02	Temperature limit will be established in a permit condition during review of Collection and Control System Design Plan, which was due 12/31/00	BAAQMD 8-34-501.3 and 8-34-507 (effective 7/1/02)	C	Temperature sensor and continuous recorder; effective 7/1/02
Combustion Temperature	40 CFR 60.758(c)(1)(i)	Y	4/4/03	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	N	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 – C
Applicable Limits and Compliance Monitoring Requirements
S8, S9 AND S11 - INTERNAL COMBUSTION ENGINES, LEAN BURN, 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	10/6/02	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 Inoperation for Parametric Monitors	BAAQMD 1-523.2	Y	7/1/02	15 consecutive days/incident and 30 calendar days/12 month period	BAAQMD 1-523.4	P/D	Records of occurrence and duration
Continuous Monitors	40 CFR 60.13(e)	Y		Requires Continuous Operation except for breakdowns, repairs, calibration, and required span adjustments	40 CFR 60.7(b)	P/D	Records of occurrence and duration

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.

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – D
Applicable Limits and Compliance Monitoring Requirements
S18 - SOLVENT DISPOSAL TANK, V-105, 1000 GALLONS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Through-put Limit	BAAQMD Condition # 10713, Part 1	Y		7,300 gallons of solvent per 12-month period	BAAQMD Condition # 10713, Part 2	P/Q	Records

Table VII – E
Applicable Limits and Compliance Monitoring Requirements
S21 - LANDFILL GAS CONDENSATE STORAGE TANK, 21000 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 # 16025, Part 6	P/D	Records
Through-put Limit	BAAQMD Condition # 16025, Part 1	Y		357,000 gallons of landfill gas condensate per 12-month period	BAAQMD Condition # 16025, Part 6	P/D	Records
Through-put Limit	BAAQMD Condition # 16025, Part 2	Y		5,000 gallons of landfill gas condensate per day	BAAQMD Condition # 16025, Part 6	P/D	Records
True Vapor Pressure	BAAQMD Condition # 16025, Part 6	Y		≤ 4.0 psia	BAAQMD Condition # 16669, Part 10	P/Q (effective upon start-up of Condensate Injection/Oxidation System at S-2)	Analysis of Volatile Organic Compounds in Landfill Gas Condensate

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
BAAQMD 8-34-412	Compliance Demonstration Test	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
SIP 8-34-114 ¹	Energy Recovery Device and Emission Control System	Manual of Procedures, Volume IV, ST-7, Organic Compounds; or EPA Reference Method 25 or 25A
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 9-1-301	Limitations on Ground Level Concentrations of SO ₂	Manual of Procedures, Volume VI, Part1, Ground Level Monitoring for Hydrogen Sulfide and sulfur dioxide

VIII. Test Methods

**Table VIII
 Test Methods**

Applicable Requirement	Description of Requirement	Acceptable Test Methods
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 9-2-301	Limitations on Hydrogen Sulfide	Manual of Procedures, Volume VI, Part1, Ground Level Monitoring for Hydrogen Sulfide and sulfur dioxide
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
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 # 347		
Part 2	NO _x Limit	Manual of Procedures, Volume IV, Oxides of Nitrogen, Continuous Sampling, and ST-14, Oxygen, Continuous Sampling

VIII. Test Methods

**Table VIII
 Test Methods**

Applicable Requirement	Description of Requirement	Acceptable Test Methods
Part 3	CO Limit	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling, and ST-14, Oxygen, Continuous Sampling
Part 5	Limit for Total Reduced Sulfur Compounds in Landfill Gas	Draeger Tube: used in accordance with manufacturer's recommended procedures
Part 6	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 # 347, Part 7d
BAAQMD Condition # 3017		
Part 2	NO _x Limit	Manual of Procedures, Volume IV, Oxides of Nitrogen, Continuous Sampling, and ST-14, Oxygen, Continuous Sampling
Part 3	CO Limit	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling, and ST-14, Oxygen, Continuous Sampling
Part 4	NMOC	Manual of Procedures, Volume IV, ST-7, Organic Compounds, and ST-14, Oxygen, Continuous Sampling; Or EPA Reference Method 18, 25, 25A, or 25C
Part 6	Limit for Total Reduced Sulfur Compounds in Landfill Gas	Draeger Tube: used in accordance with manufacturer's recommended procedures
Part 7	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 # 3017, Part 8d
BAAQMD Condition # 16025		

VIII. Test Methods

**Table VIII
 Test Methods**

Applicable Requirement	Description of Requirement	Acceptable Test Methods
Part 5	True Vapor Pressure	Calculated in accordance with EPA AP-42 Chapter 7.1 Liquid Storage Tanks using individual VOC Contents determined by EPA Methods 8015 modified, 8120, and 8240
BAAQMD Condition # 16669		
Part 2	NO _x Limit	Manual of Procedures, Volume IV, Oxides of Nitrogen, Continuous Sampling, and ST-14, Oxygen, Continuous Sampling
Part 3	CO Limit	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling, and ST-14, Oxygen, Continuous Sampling
Part 5	Limit for Total Reduced Sulfur Compounds in Landfill Gas	Draeger Tube: used in accordance with manufacturer's recommended procedures
Part 6	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 # 16669, Part 7d
Part 8	POC Emissions	Manual of Procedures, Volume IV, ST-7, Organic Compounds, Continuous Sampling, and ST-14, Oxygen, Continuous Sampling and APCO approved calculation procedure described in BAAQMD Condition # 16669, Part 8.
Part 10	VOC Content of Landfill Gas Condensate	EPA Methods 8015 modified, 8120, and 8240
Part 11	NMOC Destruction Efficiency for Condensate Injection/Oxidation System	Inlet emissions determined by records of condensate flow rate and VOC Content determine by EPA Methods 8015 modified, 8120, and 8240; Outlet emissions determined by Manual of Procedures, Volume IV, ST-7, Organic Compounds, Continuous Sampling, and ST-14, Oxygen, Continuous Sampling

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

NO_x

Oxides of nitrogen.

NSPS

Standards of Performance for New Stationary Sources. Federal standards for emissions from

X. Glossary

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.

SO2

Sulfur dioxide

X. Glossary

Title V

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

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
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