

Bay Area Air Quality Management District

375 Beale Street, Suite 600
San Francisco, CA 94105
(415) 749-5000

Proposed

MAJOR FACILITY REVIEW PERMIT

Issued To:

**Tri-Cities Waste Management
Facility #A2246**

Facility Address:

7010 Auto Mall Parkway
Fremont, CA 94538

Mailing Address:

2615 Davis Street
San Leandro, CA 94577

Responsible Official

Patrick Madej
District Manager
(510) 376-7700

Facility Contact

Patrick Madej
District Manager
(510) 376-7700

Type of Facility: Municipal Solid Waste Landfill

Primary SIC: 4953

Product: Landfill Operations

BAAQMD Permit Division Contact:
Ryan Atterbury, Air Quality Engineer

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Jack Broadbent, Director of Engineering Division

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 5/4/11);
- SIP Regulation 1 - General Provisions and Definitions
(as approved by EPA through 6/28/99);
- BAAQMD Regulation 2, Rule 1 - Permits, General Requirements
(as amended by the District Board on ~~4/18/12~~ 12/6/17);
- SIP Regulation 2, Rule 1 - Permits, General Requirements
(as approved by EPA through ~~1/26/99~~ 8/1/16);
- BAAQMD Regulation 2, Rule 2 - Permits, New Source Review
(as amended by the District Board on ~~6/15/05~~ 12/6/17);
- SIP Regulation 2, Rule 2 - Permits, New Source Review and Prevention of Significant Deterioration
(as approved by EPA through ~~1/26/99~~ 8/1/16);
- BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking
(as amended by the District Board on ~~2/19/12~~ 12/6/17);
- SIP Regulation 2, Rule 4 - Permits, Emissions Banking
(as approved by EPA through ~~1/26/99~~ 12/4/17);
- BAAQMD Regulation 2, Rule 5 – New Source Review of Toxic Air Contaminants
(as amended by the District Board on ~~1/6/10~~ 12/7/16);
- BAAQMD Regulation 2, Rule 6 - Permits, Major Facility Review
(as amended by the District Board on ~~4/16/03~~ 12/6/17); and
- SIP Regulation 2, Rule 6 – Permits, Major Facility Review
(as approved by EPA through 6/23/95)

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

1. This Major Facility Review Permit was issued on [enter issuance date] and expires on [enter 5th anniversary of issuance date]. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than [enter date 6 months prior to permit expiration date] and no earlier than [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 [enter expiration date].** If the permit renewal has not been issued by [enter expiration date], but a complete application for renewal has been submitted in accordance with the above deadlines, the existing permit will continue in force until the District takes final action on the renewal application. (Regulation 2-6-307, 404.2, 407, & 409.6; MOP Volume II, Part 3, §4.2)

I. Standard Conditions

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)
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)

I. Standard Conditions

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. (Regulation 2-6-409.20, MOP Volume II, Part 3, §4.11)
12. The permit holder is responsible for compliance, and certification of compliance, with all conditions of the permit, regardless whether it acts through employees, agents, contractors, or subcontractors. (Regulation 2-6-307)

C. Requirement to Pay Fees

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

D. Inspection and Entry

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

E. Records

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

I. Standard Conditions

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. Reports shall be for the following periods: May 1st through October 31st and November 1st through April 30th, and are due on the last day of the month after the end of the reporting period. All instances of non-compliance shall be clearly identified in these reports. The reports shall be certified by the responsible official as true, accurate, and complete. In addition, all instances of non-compliance with the permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions. The reports shall be sent by email to compliance@baaqmd.gov or by postal mail to the following address:

Director of Compliance and Enforcement
Bay Area Air Quality Management District
~~939 Ellis Street~~375 Beale Street, Suite 600
San Francisco, CA 941059
Attn: Title V Reports

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

G. Compliance Certification

Compliance certifications shall be submitted annually by the responsible official of this facility to the Bay Area Air Quality Management District and to the Environmental Protection Agency. The certification period will be November 1st ~~through~~ October 31st. The certification shall be submitted by November 30th of each year. The certification must list each applicable requirement, the compliance status, whether compliance was continuous or intermittent, the method used to determine compliance, and any other specific information required by the permit. The 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 by e-mail to r9.aeo@epa.gov or postal mail to the Environmental Protection Agency at the following address:

~~Director~~Director of the Air Division

Enforcement Division, TRI & Air Section (ENF-2-1)
USEPA Region 9
75 Hawthorne Street

I. Standard Conditions

San Francisco, California 94105
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

A. Permitted Source List

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.

**Table II – A
 Permitted Sources**

S-#	Description	Make or Type	Model	Capacity
S-1	Tri-Cities Landfill: Waste Decomposition Process, equipped with Gas Collection System	CLOSED Municipal Solid Waste Disposal Site with Active Gas Collection System	N/A	Max. Design Capacity = 19.271 million cubic yards (14.735 million cubic meters) Max. Waste In Place = 13.5 million tons Vertical Wells = 31 Horizontal Collectors = 0 with well and collector counts updated as allowed by Condition #8366, Part 2b.
S-5	Wood Waste Stockpiles	N/A	N/A	200 tons/day
S-24	Concrete and Asphalt Stockpile Storage Area	N/A	N/A	Maximum annual acceptance = 150,000 tons Maximum daily acceptance and removal = 2,500 tons

II. Equipment

B. Abatement Device List

**Table II – B
 Abatement Devices**

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
A-3	Landfill Gas Flare, burning propane (during start-up only) and landfill gas, 75 MM BTU/hour	S-1	BAAQMD Regulation 8-34-301.3 and BAAQMD Condition #8366, Part 6, see also Table IV-A	Minimum Flue Gas Temperature: 1450 degrees F (3-hour average), see also Table VII-A	Either NMOC destruction efficiency $\geq 98\%$ (wt), or < 30 ppm NMOC @ 3% O ₂ at flare outlet, see also Table VII-A
A-5	Water Truck	S-5	BAAQMD Regulation 6-1-301	None	Ringelmann No. 1

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. This section also contains provisions that may apply to temporary sources.

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

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

The full language of SIP requirements are posted on the EPA Region 9's website. The address is:

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

<https://www.epa.gov/sips-ca/epa-approved-bay-area-air-district-regulations-california-sip>

NOTE:

There are differences between the current BAAQMD rules and the version of the rules 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 (5/4/11)	N
SIP Regulation 1	General Provisions and Definitions (6/28/99)	Y
BAAQMD Regulation 2, Rule 1	Permits – General Requirements (4/18/12 12/6/17)	N
BAAQMD Regulation 2-1-429	Permits – General Requirements: Federal Emissions Statement (12/21/04)	Y

III. Generally Applicable Requirements

**Table III
 Generally Applicable Requirements**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
SIP Regulation 2, Rule 1	Permits – General Requirements (4/26/99 8/1/16)	Y
SIP Regulation 2-1-429	Permits – General Requirements: Federal Emissions Statement (4/3/95)	Y
BAAQMD Regulation 2, Rule 5	Permits – New Source Review of Toxic Air Contaminants (4/6/10 12/7/16)	N
BAAQMD Regulation 4	Air Pollution Episode Plan (3/20/91)	N
SIP Regulation 4	Air Pollution Episode Plan (5/28/90)	Y
SIP Regulation 4, Table 1	Air Pollution Episode Plan, Episode Stage Criteria (8/6/90)	Y
BAAQMD Regulation 5	Open Burning (6/19/13)	N
SIP Regulation 5	Open Burning (9/4/98)	Y
BAAQMD Regulation 6, Rule 1	Particulate Matter – General Requirements (4/2/5/17 8/1/18)	N
SIP Regulation 6	Particulate Matter and Visible Emissions (9/4/98)	Y
BAAQMD Regulation 7	Odorous Substances (3/17/82)	N
BAAQMD Regulation 8, Rule 1	Organic Compounds – General Provisions (6/15/94)	Y
BAAQMD Regulation 8, Rule 2	Organic Compounds – Miscellaneous Operations (7/20/05)	N
SIP Regulation 8, Rule 2	Organic Compounds – Miscellaneous Operations (3/22/95)	Y
BAAQMD Regulation 8, Rule 3	Organic Compounds – Architectural Coatings (7/1/09)	N
SIP Regulation 8, Rule 3	Organic Compounds – Architectural Coatings (1/2/04)	Y
BAAQMD Regulation 8, Rule 4	Organic Compounds – General Solvent and Surface Coating Operations (10/16/02)	Y
BAAQMD Regulation 8, Rule 5	Organic Compounds – Storage of Organic Liquids (10/18/06)	N
SIP Regulation 8, Rule 5	Organic Compounds – Storage of Organic Liquids (6/5/03)	Y
BAAQMD Regulation 8, Rule 15	Organic Compounds – Emulsified and Liquid Asphalts (6/1/94)	Y
BAAQMD Regulation 8, Rule 16	Organic Compounds – Solvent Cleaning Operations (10/16/02)	Y
BAAQMD Regulation 8, Rule 40	Organic Compounds – Aeration of Contaminated Soil and Removal of Underground Storage Tanks (6/15/05)	N

III. Generally Applicable Requirements

**Table III
 Generally Applicable Requirements**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
SIP Regulation 8, Rule 40	Organic Compounds – Aeration of Contaminated Soil and Removal of Underground Storage Tanks (4/19/01)	Y
BAAQMD Regulation 8, Rule 47	Organic Compounds – Air Stripping and Soil Vapor Extraction Operations (6/15/05)	N
SIP Regulation 8, Rule 47	Organic Compounds – Air Stripping and Soil Vapor Extraction Operations (4/26/95)	Y
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 (7/17/02)	N
SIP Regulation 8, Rule 51	Organic Compounds – Adhesive and Sealant Products (2/26/02)	Y
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)	N
SIP Regulation 9, Rule 1	Inorganic Gaseous Pollutants – Sulfur Dioxide (6/8/99)	Y
BAAQMD Regulation 9, Rule 2	Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/99)	N
BAAQMD Regulation 11, Rule 1	Hazardous Pollutants – Lead (3/17/82)	N
SIP Regulation 11, Rule 1	Hazardous Pollutants – Lead (9/2/81)	Y
BAAQMD Regulation 11, Rule 2	Hazardous Pollutants – Asbestos Demolition, Renovation and Manufacturing (10/7/98)	N
BAAQMD Regulation 11, Rule 14	Hazardous Pollutants – Asbestos Containing Serpentine (7/17/91)	N
BAAQMD Regulation 11, Rule 18	Reduction of Risk from Air Toxic Emissions at Existing Facilities (11/15/17)	N
BAAQMD Regulation 12, Rule 4	Miscellaneous Standards of Performance – Sandblasting (7/11/90)	N
SIP Regulation 12, Rule 4	Miscellaneous Standards of Performance – Sandblasting (9/2/81)	Y
BAAQMD Regulation 14, Rule 1	Mobile Source Emission Reduction Methods – Bay Area Commuter Benefits Program (3/19/14)	N
California Health and Safety Code Section 41750 et seq.	Portable Equipment	N
California Health and Safety Code Section 44300 et seq.	Air Toxics “Hot Spots” Information and Assessment Act of 1987	N

III. Generally Applicable Requirements

**Table III
 Generally Applicable Requirements**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
California Code of Regulations Title 17, Section 93105	Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations (7/26/01)	N
California Code of Regulations Title 17, Section 93106	Asbestos Airborne Toxic Control Measure for Asbestos-Containing Serpentine (7/20/00)	N
California Health and Safety Code Section 44300 et seq.	Air Toxics “Hot Spots” Information and Assessment Act of 1987	N
California Health and Safety Code Title 17, Section 93115	Airborne Toxic Control Measure for Stationary Compression Ignition Engines	N
California Health and Safety Code Title 17, Section 93116	Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater (2/19/11)	N
40 CFR Part 61, Subpart A	National Emission Standards for Hazardous Air Pollutants – General Provisions (5/28/03)	Y
40 CFR Part 61, Subpart M	National Emission Standards for Hazardous Air Pollutants – National Emission Standard for Asbestos (7/20/04)	Y
EPA Regulation 40 CFR, Part 82	Protection of Stratospheric Ozone (12/1/2016)	Y
Subpart F, 40 CFR 82.156	Recycling and Emissions Reductions – Required Practices	Y
Subpart F, 40 CFR 82.161	Recycling and Emissions Reductions – Technician Certification	Y
Subpart F, 40 CFR 82.166	Recycling and Emissions Reductions – Reporting and Recordkeeping Requirements	Y

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

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

The full text of each permit condition cited is included in Section VI, Permit Conditions, of this permit. The full language of the SIP requirements are posted on the EPA Region 9^{2s} website. The address is:

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

<https://www.epa.gov/sips-ca/epa-approved-bay-area-air-district-regulations-california-sip>

All other text may be found in the regulations themselves.

Table IV - A
Source-Specific Applicable Requirements
S-1: TRI-CITIES LANDFILL – WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS
COLLECTION SYSTEM; ABATED BY A-3: LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	General Provisions and Definitions (5/4/11)		
1-523	Parametric Monitoring and Recordkeeping Procedures	N	
1-523.1	Reporting requirement for periods of inoperation > 24 hours	Y	
1-523.2	Limit on duration of inoperation	Y	
1-523.3	Reporting requirement for violations of any applicable limits	N	
1-523.4	Records of inoperation, tests, calibrations, adjustments, & maintenance	Y	
1-523.5	Maintenance and calibration	N	
SIP Regulation 1	General Provisions and Definitions (6/28/99)		
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	

IV. Source-Specific Applicable Requirements

Table IV - A
Source-Specific Applicable Requirements
S-1: TRI-CITIES LANDFILL – WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS
COLLECTION SYSTEM; ABATED BY A-3: LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
1-523.3	Reports of Violations	Y	
BAAQMD Regulation 6, Rule 1	Particulate Matter – General Requirements (8/1/18)		
6-1-301	Ringelmann No. 1 Limitation	N	
6-1-305	Visible Particles	N	
6-1-310.1	Particle Weight Limitation <u>Total Suspended Particulate Concentration Limits</u> (applies to A-3 Flare only)	N	
6-1-401	Appearance of Emissions	N	
<u>BAAQMD Regulation 6, Rule 6</u>	<u>Prohibition of Trackout (8/1/18)</u>		
<u>6-6-301</u>	<u>Prohibition of Trackout onto Paved Roadways</u>	<u>N</u>	<u>7/1/2019</u>
<u>6-6-302</u>	<u>Prohibition of Visible Emissions During Cleanup of Trackout</u>	<u>N</u>	<u>7/1/2019</u>
<u>6-6-501</u>	<u>Monitoring and Recordkeeping</u>	<u>N</u>	<u>7/1/2019</u>
SIP Regulation 6	Particulate Matter and Visible Emissions (9/4/98)		
6-301	Ringelmann No. 1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particle Weight Limitation (applies to A-3 Flare only)	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Regulation 8, Rule 34	Organic Compounds – Solid Waste Disposal Sites (6/15/05)		
8-34-113	Limited Exemption, Inspection and Maintenance	Y	
8-34-113.1	Emission Minimization Requirement	Y	
8-34-113.2	Shutdown Time Limitation	Y	
8-34-113.3	Recordkeeping Requirement	Y	
8-34-117	Limited Exemption, Gas Collection System Components	Y	
8-34-117.1	Necessity of Existing Component Repairs/Adjustments	Y	
8-34-117.2	New Components are Described in Collection and Control System Design Plan	Y	

IV. Source-Specific Applicable Requirements

Table IV - A
Source-Specific Applicable Requirements
S-1: TRI-CITIES LANDFILL – WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS
COLLECTION SYSTEM; ABATED BY A-3: LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-34-117.3	Meets Section 8-34-118 Requirements	Y	
8-34-117.4	Limits on Number of Wells Shutdown	Y	
8-34-117.5	Shutdown Duration Limit	Y	
8-34-117.6	Well Disconnection Records	Y	
8-34-118	Limited Exemption, Construction Activities	Y	
8-34-118.1	Construction Plan	Y	
8-34-118.2	Activity is Required to Maintain Compliance with this Rule	Y	
8-34-118.3	Required or Approved by Other Enforcement Agencies	Y	
8-34-118.4	Emission Minimization Requirement	Y	
8-34-118.5	Excavated Refuse Requirements	Y	
8-34-118.6	Covering Requirements for Exposed Refuse	Y	
8-34-118.7	Installation Time Limit	Y	
8-34-118.8	Capping Required for New Components	Y	
8-34-118.9	Construction Activity Records	Y	
8-34-301	Landfill Gas Collection and Emission Control System Requirements	Y	
8-34-301.1	Continuous Operation	Y	
8-34-301.2	Collection and Control Systems Leak Limitations	Y	
8-34-301.3	Destruction Efficiency Requirements for Flares (applies to A-3 only)	Y	
8-34-303	Landfill Surface Requirements	Y	
8-34-304	Gas Collection System Installation Requirements	Y	
8-34-304.1	Based on Waste Age For Inactive or Closed Areas	Y	
8-34-304.2	Based on Waste Age For Active Areas	Y	
8-34-304.3	Based on Amount of Decomposable Waste Accepted	Y	
8-34-304.4	Based on NMOC Emission Rate	Y	
8-34-305	Wellhead Requirements	Y	
8-34-305.1	Operate Under Vacuum	Y	
8-34-305.2	Temperature < 55 °C	Y	
8-34-305.3	Nitrogen < 20% or	Y	
8-34-305.4	Oxygen < 5%	Y	
8-34-409	Closure Report	Y	
8-34-411	Annual Report	Y	
8-34-412	Compliance Demonstration Tests	Y	

IV. Source-Specific Applicable Requirements

Table IV - A
Source-Specific Applicable Requirements
S-1: TRI-CITIES LANDFILL – WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS
COLLECTION SYSTEM; ABATED BY A-3: LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-34-413	Performance Test Report	Y	
8-34-414	Repair Schedule for Wellhead Excesses	Y	
8-34-414.1	Records of Excesses	Y	
8-34-414.2	Corrective Action	Y	
8-34-414.3	Collection System Expansion	Y	
8-34-414.4	Operational Due Date for Expansion	Y	
8-34-415	Repair Schedule for Surface Leak Excesses	Y	
8-34-415.1	Records of Excesses	Y	
8-34-415.2	Corrective Action	Y	
8-34-415.3	Re-monitor Excess Location Within 10 Days	Y	
8-34-415.4	Re-monitor Excess Location Within 1 Month	Y	
8-34-415.5	If No More Excesses, No Further Re-Monitoring	Y	
8-34-415.6	Additional Corrective Action	Y	
8-34-415.7	Re-monitor Second Excess Within 10 days	Y	
8-34-415.8	Re-monitor Second Excess Within 1 Month	Y	
8-34-415.9	If No More Excesses, No Further Re-monitoring	Y	
8-34-415.10	Collection System Expansion for Third Excess in a Quarter	Y	
8-34-415.11	Operational Due Date for Expansion	Y	
8-34-416	Cover Repairs	Y	
8-34-501	Operating Records	Y	
8-34-501.1	Collection System Downtime	Y	
8-34-501.2	Emission Control System Downtime	Y	
8-34-501.3	Continuous Temperature Records for Enclosed Combustors (applies to A-3 Flare)	Y	
8-34-501.4	Testing	Y	
8-34-501.6	Leak Discovery and Repair Records	Y	
8-34-501.7	Waste Acceptance Records	Y	
8-34-501.8	Non-decomposable Waste Records	Y	
8-34-501.9	Wellhead Excesses and Repair Records	Y	
8-34-501.10	Gas Flow Rate Records for All Emission Control Systems	Y	
8-34-501.12	Records Retention for 5 Years	Y	
8-34-503	Landfill Gas Collection and Emission Control System Leak Testing	Y	

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S-1: TRI-CITIES LANDFILL – WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS
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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-34-504	Portable Hydrocarbon Detector	Y	
8-34-505	Well Head Monitoring	Y	
8-34-506	Landfill Surface Monitoring	Y	
8-34-507	Continuous Temperature Monitor and Recorder	Y	
8-34-508	Gas Flow Meter	Y	
8-34-510	Cover Integrity Monitoring	Y	
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)		
9-1-301	Limitations on Ground Level Concentrations (applies to flare only)	Y N	
9-1-302	General Emission Limitations (applies to flare only)	Y N	
<u>SIP Regulation 9, Rule 1</u>	<u>Sulfur Dioxide</u>		
<u>9-1-301</u>	<u>Limitations on Ground Level Concentrations</u>	<u>Y</u>	
<u>9-1-302</u>	<u>General Emissions Limitation</u>	<u>Y</u>	
BAAQMD Regulation 9, Rule 2	Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/99)		
9-2-301	Limitations on Hydrogen Sulfide	N	
40 CFR, Part 60, Subpart A	Standards of Performance for New Stationary Sources – General Provisions (9/13/10)		
60.4	Address	Y	
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	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.13	Monitoring Requirements	Y	
60.13(a)	Applies to all continuous monitoring systems	Y	
60.13(b)	Monitors shall be installed and in operation before performing performance tests	Y	
60.13(e)	Continuous monitors shall operate continuously	Y	
60.13(f)	Monitors shall be installed in proper locations	Y	
60.13(g)	Multiple monitors are required for multiple stacks	Y	
60.14	Modification	Y	
60.15	Reconstruction	Y	
60.19	General Notification and Reporting Requirements	Y	
40 CFR, Part 60, Subpart WWW	Standards of Performance for New Stationary Sources – Standards of Performance for Municipal Solid Waste Landfills (9/21/06)		
60.752	Standards for Air Emissions from Municipal Solid Waste Landfills	Y	
60.752(b)	Requirements for MSW Landfills with Design Capacity equal to or greater than 2.5 million Mg and 2.5 million m ³ (Large Designated Facilities)	Y	
60.752(b)(2)	Comply with all requirements in sections (b)(2)(i through iv)	Y	
60.752 (b)(2)(i)	Submit a Collection and Control System Design Plan	Y	
60.752 (b)(2)(i)(A)	The collection and control system in the Design Plan shall comply with 60.752(b)(2)(ii)	Y	
60.752 (b)(2)(i)(B)	Design Plan shall include all proposed alternatives to 60.753 through 60.758	Y	
60.752 (b)(2)(i)(C)	Design Plan shall conform to 60.759 (active collection system) or demonstrate sufficiency of proposed alternatives	Y	
60.752 (b)(2)(ii)	Install a collection and control system	Y	
60.752 (b)(2)(iii)	Route collected gases to a control system.	Y	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.752 (b)(2)(iii)(B)	NMOC Control Requirement for Enclosed Combustion Devices	Y	
60.752 (b)(2)(iv)	Operate in accordance with 60.753, 60.755, and 60.756	Y	
60.752(c)	Title V Operating Permit Requirements	Y	
60.752(c)(1)	Subject is June 10, 1996 for Landfills new or modified between May 30, 1991 and March 12, 1996	Y	
60.753	Operational Standards for Collection and Control Systems	Y	
60.753(a)	Operate a Collection System in each area or cell in which:	Y	
60.753(a)(1)	Active Cell – solid waste in place for 5 years or more	Y	
60.753(a)(2)	Closed/Final Grade – solid waste in place for 2 years or more	Y	
60.753(b)	Operate each wellhead under negative pressure unless:	Y	
60.753(b)(1)	Fire or increased well temperature or to prevent fire	Y	
60.753(b)(2)	Use of geomembrane or synthetic cover (subject to alternative pressure limits)	Y	
60.753(b)(3)	Decommissioned well after approval received for shut-down	Y	
60.753(c)	Wellhead Temperature, N ₂ and O ₂ Limits (or other approved alternative levels)	Y	
60.753(c)(1)	N ₂ determined by Method 3C	Y	
60.753(c)(2)	O ₂ determined by 3A and as described in (2)(i-v)	Y	
60.753(d)	Surface Leak Limit and Surface Monitoring Procedures.	Y	
60.753(e)	Vent all collected gases to a control system complying with 60.752(b)(2)(iii). If collection or control system inoperable, shut down gas mover and close all vents within 1 hour	Y	
60.753(f)	Operate the control system at all times when collected gas is routed to the control system	Y	
60.753(g)	If monitoring demonstrates that 60.753(b), (c), or (d) are not being met, corrective action must be taken	Y	
60.754	Test Methods and Procedures	Y	
60.754(c)	For PSD, NMOC emissions shall be calculated using AP-42	Y	
60.754(d)	Test Methods for Performance Test (Method 18 or 25C)	Y	
60.755	Compliance Provisions	Y	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.755(a)	For Gas Collection Systems	Y	
60.755(a)(1)	Calculation Procedures for Maximum Expected Gas Generation Flow Rate	Y	
60.755(a)(1)(i)	Equation for unknown year-to-year waste acceptance rate	Y	
60.755(a)(1)(ii)	Equation for known year-to-year waste acceptance rate	Y	
60.755(a)(1)(iii)	For closed or inactive and full sites with gas collection systems, actual flow rates may be used	Y	
60.755(a)(2)	Vertical wells and horizontal collectors shall be of sufficient density to meet all performance specifications	Y	
60.755(a)(3)	Measure wellhead pressure monthly. If pressure is positive, take corrective action (final corrective action = expand system within 120 days of initial positive pressure reading)	Y	
60.755(a)(4)	Expansion not required during first 180 days after startup.	Y	
60.755(a)(5)	Monitor wellheads monthly for temperature and either nitrogen or oxygen. If readings exceed limits, take corrective action up to expanding system within 120 days of first excess.	Y	
60.755(b)	Wells shall be placed in cells as described in design plan and no later than 60 days after:	Y	
60.755(b)(1)	Five years after initial waste placement in cell, for active cells	Y	
60.755(b)(2)	Two years after initial waste placement in cell, for closed/final grade cells.	Y	
60.755(c)	Procedures for complying with surface methane standard	Y	
60.755(c)(1)	Quarterly monitoring of surface and perimeter	Y	
60.755(c)(2)	Procedure for determining background concentration	Y	
60.755(c)(3)	Method 21 except probe inlet placed 5-10 cm above ground	Y	
60.755(c)(4)	Excess is any reading of 500 ppmv or more. Take corrective action indicated below (i-v).	Y	
60.755(c)(4)(i)	Mark and record location of excess	Y	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.755 (c)(4)(ii)	Repair cover or adjust vacuum. Re-monitor within 10 calendar days.	Y	
60.755 (c)(4)(iii)	If still exceeding 500 ppmv, take additional corrective action. Re-monitor within 10 calendar days of 2 nd excess.	Y	
60.755 (c)(4)(iv)	Re-monitor within 1 month of initial excess.	Y	
60.755 (c)(4)(v)	For any location with 3 monitored excesses in a quarter, additional collectors (or other approved collection system repairs) shall be operational within 120 days of 1 st excess.	Y	
60.755(c)(5)	Monitor cover integrity monthly and repair as needed.	Y	
60.755(d)	Instrumentation and procedures for complying with 60.755(c).	Y	
60.755(d)(1)	Portable analyzer meeting Method 21	Y	
60.755(d)(2)	Calibrated with methane diluted to 500 ppmv in air	Y	
60.755(d)(3)	Use Method 21, Section 4.4 instrument evaluation procedures	Y	
60.755(d)(4)	Calibrate per Method 21, Section 4.2 immediately before monitoring.	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	
60.756	Monitoring of Operations	Y	
60.756(a)	For active collection systems, install wellhead sampling port	Y	
60.756(a)(1)	Measure gauge pressure in wellhead on a monthly basis	Y	
60.756(a)(2)	Measure nitrogen or oxygen concentration in wellhead gas on a monthly basis.	Y	
60.756(a)(3)	Measure temperature of wellhead gas on a monthly basis.	Y	
60.756(b)	Enclosed combustors shall comply with (b)(1) and (b)(2)	Y	
60.756(b)(1)	Temperature monitor and continuous recorder (not required for boilers and process heaters with capacity > 44 MW)	Y	
60.756(b)(2)	Device that records flow to or bypass of the control device (i or ii below)	Y	
60.756 (b)(2)(i)	Install, calibrate, and maintain a device that records flow to the control device at least every 15 minutes	Y	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.756 (b)(2)(ii)	Secure a bypass valve in closed position with a lock-and-key configuration and inspect seal and lock monthly	Y	
60.756(e)	Procedures for requesting alternative monitoring parameters	Y	
60.756(f)	Monitor surface on a quarterly basis. Closed landfills with no monitored exceedences in 3 consecutive quarters may reduce monitoring frequency to an annual basis	Y	
60.757	Reporting Requirements	Y	
60.757(b)	Submit Initial and Annual NMOC Emission Rate Report	Y	
60.757(b)(3)	Sites with Collection and Control Systems operating in compliance with this subpart are exempt from (b)(1) and (b)(2)	Y	
60.757(c)	Submit a Collection and Control System Design Plan within 1 year of first NMOC emission rate report showing NMOC > 50 MG/year, except as follows	Y	
60.757(f)	Submit Annual Reports containing information required by (f)(1) through (f)(6)	Y	
60.757(f)(1)	Value and length of time for exceedance of parameters monitored per 60.756(a), (b) or (d)	Y	
60.757(f)(2)	Description and duration of all periods when gas is diverted from the control device by a by-pass line	Y	
60.757(f)(3)	Description and duration of all periods when control device was not operating for more than 1 hour	Y	
60.757(f)(4)	All periods when collection system was not operating for more than 5 days.	Y	
60.757(f)(5)	Location of each surface emission excess and all re-monitoring dates and concentrations.	Y	
60.757(f)(6)	Location and installation dates for any wells or collectors added as a result of corrective action for a monitored excess.	Y	
60.757(g)	Initial Performance Test Report Requirements (g)(1-6)	Y	
60.757(g)(1)	Diagram of collection system showing positions of all existing collectors, proposed positions for future collectors, and areas to be excluded from control.	Y	
60.757(g)(2)	Basis for collector positioning to meet sufficient density req.	Y	

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COLLECTION SYSTEM; ABATED BY A-3: LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.757(g)(3)	Documentation supporting percentage of asbestos or non-degradeable material claims for areas without a collection system.	Y	
60.757(g)(4)	For areas excluded from collection due to non-productivity, calculations and gas generation rates for each non-productive area and the sum for all nonproductive areas.	Y	
60.757(g)(5)	Provisions for increasing gas mover equipment if current system inadequate to handle maximum projected gas flow rate.	Y	
60.757(g)(6)	Provisions for control of off-site migration	Y	
60.758	Recordkeeping Requirements	Y	
60.758(a)	Design Capacity and Waste Acceptance Records (retain 5 years)	Y	
60.758(b)	Collection and Control Equipment Records (retain for life of control equipment except 5 years for monitoring data)	Y	
60.758(b)(1)	Collection System Records	Y	
60.758 (b)(1)(i)	Maximum expected gas generation flow rate	Y	
60.758 (b)(1)(ii)	Density of wells and collectors	Y	
60.758(b)(2)	Control System Records - enclosed combustors other than boilers or process heaters with heat input > 44 MW	Y	
60.758 (b)(2)(i)	Combustion temperature measured every 15 minutes and averaged over the same time period as the performance test	Y	
60.758 (b)(2)(ii)	Percent NMOC reduction achieved by the control device	Y	
60.758(c)	Records of parameters monitored pursuant to 60.756 and periods of operation when boundaries are exceeded (retain for 5 years)	Y	
60.758(c)(1)	Exceedances subject to record keeping are	Y	
60.758 (c)(1)(i)	All 3-hour periods when average combustion temperature was more than 28 C below the average combustion temperature during the most recent complying performance test	Y	
60.758(c)(2)	Records of continuous flow to control device or monthly inspection records if seal and lock for bypass valves	Y	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.758(d)	Plot map showing location of all existing and planned collectors with a unique label for each collector (retain for life of collection system)	Y	
60.758(d)(1)	Installation date and location of all newly installed collectors	Y	
60.758(d)(2)	Records of nature, deposition date, amount, and location of asbestos or non-degradable waste excluded from control	Y	
60.758(e)	Records of any exceedance of 60.753, location of exceedance and re-monitoring dates and data (for wellheads and surface). Retain for 5 years.	Y	
60.759	Specifications for Active Collection Systems	Y	
60.759(a)	Active wells and collectors shall be at sufficient density	Y	
60.759(a)(1)	Collection System in refuse shall be certified by PE to achieve comprehensive control of surface gas emissions	Y	
60.759(a)(2)	Collection Systems (active or passive) outside of refuse shall address migration control	Y	
60.759(a)(3)	All gas producing areas shall be controlled except as described below (i-iii).	Y	
60.759(a)(3)(i)	Any segregated area of asbestos or non-degradable material only may be excluded, if documented adequately per 60.758(d).	Y	
60.759(a)(3)(ii)	Any non-productive areas may be excluded from control, provided total NMOC emissions from all excluded areas is < 1% of total NMOC emissions from landfill. Document amount, location, and age of waste and all calculations for each excluded area.	Y	
60.759(a)(3)(iii)	For calculating NMOC emissions, values for k and concentration of NMOC that have been previously approved shall be used or defaults if no values were approved. All non-degradable wastes that are being subtracted from total wastes for NMOC calculations must be documented adequately.	Y	
60.759(b)	Gas Collection System Components	Y	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.759(b)(1)	Must be constructed of PVC, HDPE, fiberglass, stainless steel, or other approved material and of suitable dimensions to convey projected gas amounts and withstand settling, traffic, etc.	Y	
60.759(b)(2)	Collectors shall not endanger liner, shall manage condensate and leachate, and shall prevent air intrusion and surface leaks.	Y	
60.759(b)(3)	Header connection assemblies shall include positive closing throttle valve, seals and couplings to prevent leaks, at least one sampling port, and shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other approved materials.	Y	
60.759(c)	Gas Mover Equipment shall be sized to handle maximum expected gas generation rate over the intended period of use.	Y	
60.759(c)(1)	For existing systems, flow data shall be used to project maximum flow rate.	Y	
60.759(c)(2)	For new systems, shall be calculated per 60.755(a)(1)	Y	
40 CFR, Part 63, Subpart A	National Emission Standards for Hazardous Air Pollutants: General Provisions (9/13/10)		
63.4	Prohibited activities and circumvention	Y	
63.5	Preconstruction review and notification requirements	Y	
63.5(b)	Requirements for existing, newly constructed, and reconstructed sources	Y	
63.6	Compliance with standards and maintenance requirements	Y	
63.6(e)	Operation and maintenance requirements and SSM Plan	Y	
63.6(f)	Compliance with non-opacity emission standards	Y	
63.10	Recordkeeping and reporting requirements	Y	
63.10(b)	General recordkeeping requirements	Y	
63.10(b)(2)(i-v)	Records for startup, shutdown, malfunction, and maintenance	Y	
63.10(d)	General reporting requirements	Y	
63.10(d)(5)	Startup, Shutdown, and Malfunction (SSM) Reports	Y	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
40 CFR, Part 63, Subpart AAAA	National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills (4/20/06)		
63.1945	When do I have to comply with this subpart?	Y	
63.1945(b)	Compliance date for existing affected landfills	Y	
63.1955	What requirements must I meet?	Y	
63.1955(a)	Comply with either 63.1955(a)(1) or (a)(2)	Y	
63.1955(a)(1)	Comply with 40 CFR Part 60, Subpart WWW	Y	
63.1955(b)	Comply with 63.1960-63.1985, if a collection and control system is required by 40 CFR Part 60, Subpart WWW or a State Plan implementing 40 CFR Part 60, Subpart Cc	Y	
63.1955(c)	Comply with all approved alternatives to standards for collection and control systems plus all SSM requirements and 6 month compliance reporting requirements	Y	
63.1960	How is compliance determined?	Y	
63.1965	What is a deviation?	Y	
63.1975	How do I calculate the 3-hour block average used to demonstrate compliance?	Y	
63.1980	What records and reports must I keep and submit?	Y	
63.1980(a)	Comply with all record keeping and reporting requirements in 40 CFR Part 60, Subpart WWW or the State Plan implementing 40 CFR Part 60, Subpart Cc, except that the annual report required by 40 CFR 60.757(f) must be submitted every 6 months	Y	
63.1980(b)	Comply with all record keeping and reporting requirements in 40 CFR Part 60, Subpart A and 40 CFR Part 63, Subpart A, including SSM Plans and Reports	Y	
BAAQMD Condition #8366			
Part 1	Permitted Refuse Capacity (Cumulative Increase, Offsets, and Toxic Risk Management Policy)	Y	

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Table IV - A
Source-Specific Applicable Requirements
S-1: TRI-CITIES LANDFILL – WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS
COLLECTION SYSTEM; ABATED BY A-3: LANDFILL GAS FLARE

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
Part 2	Number of Authorized Wells in Gas Collection System (Regulations 2-1-301, 8-34-301.1, and 8-34-305)	Y	
Part 3	Refuse Disposal Records (Cumulative Increase and Regulations 2-6-501 and 8-34-304)	Y	
Part 4	Landfill Gas Collection System – Continuous Operation (Regulations 8-34-301 and 8-34-305)	Y	
Part 5	Abatement Requirement for Collected Landfill Gas (Regulation 8-34-301)	Y	
Part 6	Flare Temperature Requirements (Regulation 8-34-301, Toxic Risk Management Policy, RACT, and 40 CFR 60.758(c)(1)(i))	Y	
Part 7	Temperature Monitor for Flare (Regulation 8-34-507)	N	
Part 8	NOx Emissions Limit (RACT and Offsets)	Y	
Part 9	CO Emissions Limit (RACT and Offsets)	Y	
Part 10	Annual Source Test Requirements (Regulations 8-34-301.3 and 8-34-412 and 40 CFR 60.752(b)(2)(iii)(B))	Y	
Part 11	Flare Heat Input Limits (Regulation 2-1-301)	Y	
Part 12	Surrogate SO2 Monitoring (Regulations 9-1-302 and 2-6-503)	Y	
Part 19	Reporting periods and report submittal due dates for the Regulation 8, Rule 34 report (Regulation 8-34-411 and 40 CFR 63.1980(a))	Y	
Part 20	Alternate Wellhead Requirements (Regulations 8-34-301.2, 8-34-303, 8-34-305, 40 CFR Part 60.755(a) and 60.759)	Y	
Part 21	Leachate collection system requirements (Regulations 8-34-305, 8-34-404, 8-34-414, 8-34-501.4, 8-34-501.9, 40 CFR Part 60.755(a) and 60.759, Regulation 2-6-501)	Y	
Part 22	Alternate Temperature Limit for Additional Wells (Regulations 8-34-305)	Y	

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Table IV - B
Source-Specific Applicable Requirements
S-5: WOOD WASTE STOCKPILES; ABATED BY A-5: WATER TRUCK

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6, Rule 1	Particulate Matter – General Requirements (8/1/18)		
6-1-301	Ringelmann No. 1 Limitation	N	
6-1-305	Visible Particles	N	
6-1-307	Prohibition of Visible Emissions Within and From Regulated Bulk Material Sites	N	7/1/2019
6-1-401	Appearance of Emissions	N	
6-1-506	Monitoring and Recordkeeping at Regulated Bulk Material Sites	N	7/1/2019
BAAQMD Regulation 6, Rule 6	Prohibition of Trackout (8/1/18)		7/1/2019
6-6-301	Prohibition of Trackout onto Paved Roadways	N	7/1/2019
6-6-302	Prohibition of Visible Emissions During Cleanup of Trackout	N	7/1/2019
6-6-501	Monitoring and Recordkeeping	N	7/1/2019
SIP Regulation 6	Particulate Matter and Visible Emissions (9/4/98)		
6-301	Ringelmann No. 1 Limitation	Y	
6-305	Visible Particles	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Condition #15022			
Part 1	Particulate Abatement Requirements (Regulations 1-301 and 6-1-301)	Y	
Part 2	Visible Emissions – Particulate Fallout Restrictions (Regulations 1-301 and 6-1-301)	Y	
Part 3	Observation of Emissions Source (Regulations 2-1-403, 6-1-301, and 6-1-305)	Y	

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Table IV - C
Source-Specific Applicable Requirements
S-24: CONCRETE AND ASPHALT STOCKPILE STORAGE AREA

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6, Rule 1	Particulate Matter – General Requirements (8/1/18)		
6-1-301	Ringelmann No. 1 Limitation	N	
6-1-305	Visible Particles	N	
6-1-307	Prohibition of Visible Emissions Within and From Regulated Bulk Material Sites	N	7/1/2019
6-1-401	Appearance of Emissions	N	
6-1-506	Monitoring and Recordkeeping at Regulated Bulk Material Sites	N	7/1/2019
BAAQMD Regulation 6, Rule 6	Prohibition of Trackout (8/1/18)		7/1/2019
6-6-301	Prohibition of Trackout onto Paved Roadways	N	7/1/2019
6-6-302	Prohibition of Visible Emissions During Cleanup of Trackout	N	7/1/2019
6-6-501	Monitoring and Recordkeeping	N	7/1/2019
SIP Regulation 6	Particulate Matter and Visible Emissions (9/4/98)		
6-301	Ringelmann No. 1 Limitation	Y	
6-305	Visible Particles	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Condition #25393			
Part 1	Maximum annual acceptance limit (Cumulative Increase)	Y	
Part 2	Maximum daily processing rate (Regulation 2-1- 403)	Y	
Part 3	Emission minimization and control with water spray (Regulation 6-1-301)	Y	
Part 4	Recordkeeping requirement (Cumulative Increase)	Y	

V. SCHEDULE OF COMPLIANCE

The permit holder shall comply with all applicable requirements cited in this permit. The permit holder shall also comply 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.

Condition # 8366

FOR S-1: TRI-CITIES LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; AND ABATED BY A-3: LANDFILL GAS FLARE

1. The Tri-Cities Landfill S-1 is permitted for a total refuse capacity of 19,271,000 cubic yards (approximately 13,489,700 tons). Effective August 1, 2012, no waste shall be disposed of in the S-1 Landfill. (Basis: Cumulative Increase, Offsets, and Toxic Risk Management Policy)
2. The owner/operator shall apply for and receive a Change of Conditions from the District before altering the landfill gas collection system described in Parts 2a-b below. Increasing or decreasing the number of wells or collectors are alterations subject to this requirement. The authorized number of landfill gas collection and leachate collection system components is the baseline count listed below, plus any components added and minus any components decommissioned pursuant to Part 2b, as evidenced by start-up/shutdown notification letters submitted to the District.

- a. The owner/operator has been issued a Permit to Operate for the landfill gas collection system components listed below. Well and collector locations, depths, and lengths are as described in detail in Permit Applications # 3515, 10998, 15345, and 17332. In addition, the owner/operator has been issued a Change of Conditions for modifications to the gas collection system, the details of which are included in Permit Application #22571.

Required Components

(i) Main Gas Collection System

Total Number of Vertical Wells:	31
Total Number of Horizontal Landfill Gas Trench Collectors:	0

(ii) Intermittent Gas Collection System

Total Number of Leachate Collection Wells:	0
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- b. The owner/operator is authorized to make the landfill gas collection system and leachate collection system component alterations listed below. Specific details regarding well alterations are described in Permit Application #22571.

	Minimum	Maximum
Install new Vertical Gas Extraction Wells:	0	30
Decommission Vertical Gas Extraction Wells:	0	15
Install new Horizontal Trench Collectors:	0	15
Decommission Horizontal Trench Collectors:	0	15
Install new Leachate Cleanout Risers:	0	5
Decommission Leachate Cleanout Risers:	0	5

VI. Permit Conditions

Condition # 8366

FOR S-1: TRI-CITIES LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; AND ABATED BY A-3: LANDFILL GAS FLARE

Wells installed, relocated, replaced, or shutdown pursuant to Part 2b shall be added to or removed from Part 21 in accordance with the procedures identified in Regulations 2-6-414 or 2-6-415. The owner/operator shall maintain records of the decommissioning date for each well that is shutdown and the initial operation date for each new or relocated well and trench. An unlimited number of vertical gas extraction well and horizontal trench collector replacements may be performed as long as the replacement is connected to the gas collection system within 24 hours of shutdown of the replaced well/trench collector.

(Basis: Regulations 2-1-301, 8-34-301.1, 8-34-303, 8-34-304, and 8-34-305)

3. In order to demonstrate compliance with the above requirements, the owner/operator shall maintain the following records:
 - a. Deleted.
 - b. For areas of the landfill not controlled by a landfill gas collection system, the owner/operator shall maintain a record of the date that waste was initially placed in the area or cell.
 - c. The cumulative amount of waste placed in each uncontrolled area or cell.
 - d. If the owner/operator plans to exclude an uncontrolled area or cell from the collection system requirement, the types and amounts of all non-decomposable waste placed in the area or cell shall be recorded. If non-decomposable waste makes up less than 100% of the contents of a given cell, that percentage shall be noted.
 - e. The initial operation date for each new landfill gas well and collector.
 - f. An accurate map of the landfill that indicates the locations of all refuse boundaries and the locations of all wells and collectors as identified in the Collection and Control System Design Plan. Any areas containing only non-decomposable waste shall be clearly identified. This map shall be updated at least every six months to indicate changes in refuse boundaries and to include any newly installed wells and collectors.

These records shall be kept on-site and be made available for inspection to District personnel upon request for a period of five years from the date on which a record was made. (Basis: Cumulative Increase and Regulations 2-6-501 and 8-34-304)

VI. Permit Conditions

Condition # 8366

FOR S-1: TRI-CITIES LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; AND ABATED BY A-3: LANDFILL GAS FLARE

4. The landfill gas collection system described in Part 2a.(i) above shall be operated continuously. Wells shall not be disconnected or removed from operation nor shall isolation or adjustment valves be closed without written authorization from the District, unless the owner/operator complies with all applicable requirements of Regulation 8, Rule 34, Sections 113, 116, 117, and 118. The leachate collection system described in Part 2a.(ii) is not required to be operated continuously and is subject to the alternative wellhead standards described in Part 21, as allowed under Regulation 8-34-305. The CCR, Title 17, Section 95464(c) Wellhead Gauge Pressure Requirement continues to apply to these components. (Basis: Regulations 8-34-301 and 8-34-305, CA H&S Code, Title 17, Division 3, Chapter 10, Article 4, Subarticle 6, 40 CFR Part 60.753)
5. All landfill gas collected by the gas collection system for S-1 shall be abated at all times by the Landfill Gas Flare A-3. Under no circumstances shall raw landfill gas be vented to the atmosphere. This limitation does not apply to unavoidable landfill gas emissions that occur during collection system installation, maintenance, or repair performed in compliance with Regulation 8, Rule 34, Sections 113, 116, 117, or 118 or to inadvertent component or surface leaks that do not exceed the limits specified in 8-34-301.2 or 8-34-303. (Basis: Regulation 8-34-301)
6. The combustion zone temperature of the flare shall be maintained at a minimum temperature of 1450 degrees F, averaged over any 3-hour period. If a source test demonstrates compliance with all applicable requirements at a different temperature, the APCO may revise this minimum temperature limit in accordance with the procedures identified in Regulation 2-6-414 or 2-6-415, based on the following criteria. The minimum combustion zone temperature for the flare shall be equal to the average combustion zone temperature determined during the most recent complying source test minus 50 degrees F, provided that the minimum combustion zone temperature is not less than 1400 degrees F. (Basis: Regulation 8-34-301, Toxic Risk Management Policy, RACT, and 40 CFR 60.758(c)(1)(i))
7. The Landfill Gas Flare A-3 shall be equipped with a combustion temperature readout monitor and continuous recorder to measure and record the temperature in the combustion zone. (Basis: Regulation 8-34-507)
8. Emissions of Nitrogen Oxides (NO_x) from the Flare A-3 shall not exceed 0.06 pounds per million BTU (calculated as NO₂). (basis: RACT and Offsets)

VI. Permit Conditions

Condition # 8366

FOR S-1: TRI-CITIES LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; AND ABATED BY A-3: LANDFILL GAS FLARE

9. Emissions of Carbon Monoxide (CO) from the Flare A-3 shall not exceed 0.3 pounds per million BTU. (basis: RACT and Offsets).

10. In order to demonstrate compliance with Regulation 8, Rule 34, Section 301.3, Regulation 9, Rule 1, Section 302, 40 CFR 60.752(b)(2)(iii)(B), and the above requirements, the owner/operator shall ensure that a District approved source test is conducted annually on the Landfill Gas Flare (A-3). The annual source test shall determine the following:
 - a. Landfill gas flow rate to the flare (dry basis)
 - b. Concentrations (dry basis) of methane (CH₄) and total non-methane organic compounds (NMOC) in the landfill gas;
 - c. Stack gas flow rate from the flare (dry basis)
 - d. Concentrations (dry basis) of nitrogen oxides (NO_x), carbon monoxide (CO), CH₄, NMOC, and O₂ in the flare stack gas
 - e. The NMOC destruction efficiency achieved by the flare
 - f. The average combustion temperature in the flare during the test period.Annual source tests 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 after the test date. (Basis: Regulations 8-34-301.3 and 8-34-412 and 40 CFR 60.752(b)(2)(iii)(B))

11. The heat input to the A-3 Flare shall not exceed 1,800 million BTU per day or 657,000 million BTU per year. In order to demonstrate compliance with this part, the owner/operator shall calculate and record on a monthly basis the maximum daily and total monthly heat input to the flare based on the landfill gas flow rate recorded pursuant to Part 10, the average methane concentration in the landfill gas based on the most recent source test, and a high heating value for methane of 1013 BTU/scf. The records shall be retained for five years and shall be made available to the District staff upon request. (Basis: Regulation 2-1-301)

VI. Permit Conditions

Condition # 8366

FOR S-1: TRI-CITIES LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; AND ABATED BY A-3: LANDFILL GAS FLARE

12. Total reduced sulfur compounds in the collected landfill gas shall be monitored as a surrogate for monitoring sulfur dioxide in control systems exhaust. The concentration of total reduced sulfur compounds in the collected landfill gas shall not exceed 1300 ppmv (dry). In order to demonstrate compliance with this part, the owner/operator shall measure the total sulfur content in collected landfill gas on an annual basis using a draeger tube. The landfill gas sample shall be taken from the main landfill gas header. The owner/operator shall follow the manufacturer's recommended procedures for using the draeger tube and interpreting the results.
(Basis: Regulations 9-1-302 and 2-6-503)
13. Deleted.
14. Deleted.
15. Deleted.
16. Deleted.
17. Deleted.
18. Deleted.
19. The annual report required by BAAQMD Regulation 8-34-411 shall be submitted in two semi-annual increments. The reporting periods and report submittal due dates for the semi-annual increments of the Regulation 8-34-411 report and the MSW Landfill NESHAP report, which is required pursuant to 40 CFR Part 63.1980(a), shall be synchronized with the reporting periods and report submittal due dates for the semi-annual MFR Permit monitoring reports that are required by Section I.F of the MFR Permit for this site. A single report may be submitted to satisfy the requirements of Section I.F, Regulation 8-34-411, and 40 CFR Part 63.1980(a), provided that all items required by each applicable reporting requirement are included in the single report.
(Basis: Regulation 8-34-411 and 40 CFR Part 63.1980(a))

VI. Permit Conditions

Condition # 8366

FOR S-1: TRI-CITIES LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; AND ABATED BY A-3: LANDFILL GAS FLARE

20. The gas collection system operating requirements listed below shall replace the well head requirements identified in Regulation 8-34-305.2 through 8-34-305.4 for the specified wells. All wells remain subject to the Regulation 8-34-305.1 requirement to maintain vacuum at each well head.
- The Regulation 8-34-305.2 temperature limit shall not apply to the Wells 103 and 114 provided that the landfill gas temperature at each well does not exceed 145 degrees F (63 degrees C).
 - The owner/operator shall demonstrate compliance with the alternative wellhead landfill gas temperature specified in Part 20(a) above by monitoring the temperature of each wellhead on a monthly basis, in accordance with Regulation 8-37-505.
 - All records to demonstrate compliance with Part 20(a) and all applicable sections of Regulation 8, Rule 34 shall be recorded in a District-approved log and made available to District staff upon request in accordance with Regulation 8-34-501.4, 501.9, and 414.
 - If the temperatures measured at any of the wells listed in Part 20(a) exceed 145 degrees F, the owner/operator shall take all measures necessary to investigate the possibility of subsurface fires, including landfill gas testing for carbon monoxide (CO) on the affected wells. If a fire is suspected, the owner/operator shall employ all means as appropriate to extinguish the fire, repair the well(s), and bring the well(s) back into service.
(Basis: Regulation 8-34-301.2, 8-34-303, and 8-34-305, 40 CFR Part 60.755(a) and 60.759)
21. The leachate collection system shall be connected to the vacuum system as needed to prevent violation of applicable surface and component leak limits, and the operating requirements listed below shall replace the operating requirements identified in Regulation 8-34-301.1, ~~8-34-305.1~~, 8-34-305.3, and 8-34-305.4 for the leachate collection risers (LCRs) ~~which the District has approved for inclusion in Part 21~~. All LCRs remain subject to the landfill gas temperature limit in Regulation 8-34-305.2. ~~(basis: Regulation 8-34-305, Regulation 8-34-404, Regulation 8-34-414, Regulation 8-34-501.4, Regulation 8-34-501.9, 40 CFR Part 60.755(a) and 60.759, Regulation 2-6-501)~~
- The Regulation 8-34-305.3 and 8-34-305.4, the nitrogen and oxygen content limits, shall not apply, provided that each LCR is operated at an oxygen concentration not to exceed 15% by volume. Regulation 8-34-414 and subpart 21(b) below may be used in conjunction with this alternative wellhead limit.

VI. Permit Conditions

Condition # 8366

FOR S-1: TRI-CITIES LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; AND ABATED BY A-3: LANDFILL GAS FLARE

- b. ~~The component may be disconnected from the vacuum system if compliance with Part 21(a) requires turning off the vacuum to a LCR or if the temperature > 131 degrees F., the Regulation 8-34-301.1 continuous operation and 8-34-305.1 negative pressure requirement shall not apply if the owner/operator ensures the pressure at the affected LCR does not exceed 0.5 inches water column. This allowance for less than continuous operation will expire on January 30, 2014, unless the owner/operator requests renewal of this provision pursuant to Regulation 8-34-404 and the District approves the request. The component shall be connected to vacuum if any pressure is detected.~~
- c. ~~The owner/operator shall demonstrate compliance with the oxygen content limit in 21(a) alternative wellhead pressure limit in 19(b) by installing and maintaining a District approved vacuum/pressure gauge at each LCR and by monitoring and recording the gauge pressure, oxygen content, methane content, and pressure temperature at each affected LCR on a monthly basis, in accordance with Regulation 8-34-501 and 8-34-505 regardless of whether the component is connected to vacuum or not.~~
- d. ~~The owner/operator may elect to add additional LCRs to these alternate operating conditions by notifying the District in writing of this request, with identification of the LCR ID number(s) and submittal of the information required by Regulation 8-34-404.~~

All records to demonstrate compliance with Part 21 and all applicable sections of BAAQMD Regulation 8, Rule 34 shall be recorded in a District-approved log and made available to District staff upon request for at least 5 years from date of entry. ~~(basis: Regulations 8-34-305, 8-34-404, 8-34-414, 8-34-501.4, 8-34-501.9, Regulation 2-6-501, 40 CFR Part 60.755(a) and 60.759, CCR, Title 17, Section 95468(a)(1))~~

- 22. If any other well has a temperature of 131 degrees F or higher, the owner/operator may elect to add this component to the list of alternative temperature limit wells in Part 20 if all of the following requirements are met:
 - a. The wellhead temperature does not exceed 145 degrees F.
 - b. The carbon monoxide (CO) concentration in the wellhead gases does not exceed 500 ppmv.
 - c. The component does not exceed any wellhead limit other than temperature and had no excesses of wellhead limits (other than temperature) during the past 120 days prior to adding this component to the list in this subpart, unless the excess is positive pressure at the well from the well vacuum being reduced to eliminate any potential over pull that could contribute to a landfill fire.

VI. Permit Conditions

Condition # 8366

FOR S-1: TRI-CITIES LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; AND ABATED BY A-3: LANDFILL GAS FLARE

- d. Prior to adding a component to the list in Part 20, the owner/operator shall monitor the gas in the wellhead for CO concentration at least two times, with no more than 15 days between tests. CO monitoring shall continue on a monthly basis, or more frequently if required below, until the owner/operator is allowed to discontinue CO monitoring per subpart e(ii)(3).
- e. The owner/operator shall comply with all applicable monitoring and recordkeeping requirements below:
 - i. The owner/operator shall demonstrate compliance with the alternative wellhead temperature limit by monitoring and recording the temperature of the landfill gas in the wellhead on a monthly basis, in accordance with Regulations 8-34-501.4, 8-34-501.9, and 8-34-505.
 - ii. If the temperature of the landfill gas in the wellhead exceeds 140 degrees F, the owner/operator shall investigate the possibility of a subsurface fire at the wellhead by monitoring CO concentration in the wellhead gases and by searching for smoke, smoldering odors, combustion residues, and other fire indicators in the wellhead and in the landfill area near the wellhead. Within 5 days of triggering a fire investigation, the owner/operator shall measure the CO concentration in the landfill gas at the wellhead using a portable CO monitor, CO Draeger tube, or an EPA- approved test method. CO monitoring shall continue according to the frequency specified below:
 - 1. If the CO concentration is greater than 500 ppmv, the owner/operator shall immediately take all steps necessary to prevent or extinguish the subsurface fire, including disconnecting the well from the vacuum system if necessary. If the well is not disconnected from the vacuum system or upon reconnecting the well to the vacuum system, the owner/operator shall monitor the well for CO concentration, wellhead temperature, and other fire indicators on at least a weekly basis until CO concentration drops to 500 ppmv or less.

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Condition # 8366

FOR S-1: TRI-CITIES LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; AND ABATED BY A-3: LANDFILL GAS FLARE

2. If the CO concentration is less than or equal to 500 ppmv but great than 100 ppmv, the owner/operator shall monitor for CO concentration at least twice per month (not less than once every 15 days) until the CO concentration drops to 100 ppmv or less. Wellhead temperature and other fire indicators shall be evaluated at each of these semi-monthly monitoring events.
 3. If the CO concentration is less than or equal to 100 ppmv, the owner/operator shall monitor for CO concentration on a monthly basis. CO monitoring may be discontinued if three consecutive CO measurements are 100 ppmv or less and the wellhead temperature during each of these three monitoring events is 140 degrees F or less. If the component has three or more CO measurement of 100 ppmv or less but the wellhead temperature was greater than 140 degrees F, the owner/operator must receive written approval from the District before discontinuing the monthly CO monitoring at that component.
- iii. The owner/operator shall record the dates and results of all monitoring events required by this subpart in a District-approved log. If subpart 20e(ii) or 20e(ii)(1) applies, the owner/operator shall also record all actions taken to prevent or extinguish the fire.
- f. Within 30 days of adding a component to the list in this subpart, the owner/operator shall notify the District in writing that the operator is requesting to add the component to the list of alternative temperature limit wells. This notification shall include the well ID number, a map of the collection system to identify the location of the well, and the dates and results of all monitoring conducted on the well to verify that the above requirements have been satisfied.
- g. If the Regulation 8-34-414 repair schedule has been invoked for the wellhead temperature excess and the owner/operator has met the requirement in Sections 414.1 and 414.2, then compliance with the requirements of the subpart shall be deemed an acceptable resolution of the wellhead temperature excess in lieu of the collection system expansion specified in Section 414.3 and 414.4.

(Basis: Regulation 8-34-305)

VI. Permit Conditions

Condition # 15022

FOR S-5: WOOD WASTE STOCKPILES; ABATED BY A-5: WATER TRUCK

1. Water spray (A-5), minimized drop height, and other particulate reducing techniques shall be used as necessary to minimize particulate emissions from the wood debris stockpiling operations. (Basis: Regulations 6-1-301 and 1-301)
2. Visible emissions shall not exceed Ringelmann 1.0 nor shall it result in fallout on adjacent properties in sufficient quantities as to cause a public nuisance per Regulation 1-301. (Basis: Regulations 6-1-301 and 1-301)
3. Observation for visible particulate emissions is required each time material to added to or removed from the Wood Waste Stockpiles. If visible emissions are detected, the operator of the source shall take the necessary corrective action to stop the emissions. (Basis: Regulations 6-1-301, 6-1-305, and 2-1-403)

VI. Permit Conditions

Condition #25393

FOR S-24: CONCRETE AND ASPHALT STOCKPILE STORAGE AREA

1. The owner/operator shall ensure that no more than 150,000 tons concrete and asphalt is accepted at S-24 in any consecutive 12-month period.
(Basis: Cumulative Increase)
2. The owner/operator shall ensure that the combined amount of concrete and asphalt accepted at the site and removed from the site does not exceed 2,500 tons in any day.
(Basis: Regulation 2-1-403, limiting daily emissions to avoid BACT)
3. The owner/operator shall use water spray to abate fugitive dust whenever concrete or asphalt is being dumped into and removed from the stockpile storage area, shall minimize disturbance of the stockpiles, and use water spray additionally, as necessary, on the stockpiles and stockpile area to maintain compliance with District Regulation 6, Rule 1, Section 301.
(Basis: Regulation 6-1-301)
4. The owner/operator shall maintain the following records:
 - a. Amount of concrete and asphalt accepted on a daily basis.
 - b. Amount of concrete and asphalt removed from the site on a daily basis.
 - c. Amount of concrete and asphalt accepted and removed shall be totaled at the end of each month for each day and for the previous 12-month period.The owner/operator shall record all records in a District-approved log. The owner/operator shall retain the records for five years from the date of entry and make them 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: Cumulative Increase)

VII. APPLICABLE LIMITS & 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.

This section is only a summary of the limits and monitoring requirements. In the case of a conflict with any requirement in Sections I-VI, the preceding sections take precedence over Section VII.

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1: TRI-CITIES LANDFILL WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS
COLLECTION SYSTEM, ABATED BY A-3: LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Collection System Installation Dates	BAAQMD 8-34-304.1	Y		For Inactive/Closed Areas: collection system components must be installed and operating by 2 years + 60 days after initial waste placement	BAAQMD 8-34-501.7 and 501.8, and BAAQMD Condition #8366, Part 3	P/E	Records
Collection System Installation Dates	BAAQMD 8-34-304.2	Y		For Active Areas: Collection system components must be installed and operating by 5 years + 60 days after initial waste placement	BAAQMD 8-34-501.7 and 501.8, and BAAQMD Condition #8366, Part 3	P/E	Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1: TRI-CITIES LANDFILL WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS
COLLECTION SYSTEM, ABATED BY A-3: LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Collection System Installation Dates	BAAQMD 8-34-304.3	Y		For Any Uncontrolled Areas or Cells: collection system components must be installed and operating within 60 days after the uncontrolled area or cell accumulates 1,000,000 tons of decomposable waste	BAAQMD 8-34-501.7 and 501.8, and BAAQMD Condition #8366, Part 3	P/E	Records
Collection System Installation Dates	40 CFR 60.753 (a)(2) and 60.755 (b)(2)	Y		For Inactive/Closed Areas: collection system components must be installed and operating by 2 years + 60 days after initial waste placement	40 CFR 60.758(a), (d)(1) and (d)(2), and 60.759(a)(3)	P/E	Records
Collection System Installation Dates	40 CFR 60.753 (a)(1) and 60.755 (b)(1)	Y		For Active Areas: Collection system components must be installed and operating by 5 years + 60 days after initial waste placement	40 CFR 60.758(a), (d)(1) and (d)(2)	P/E	Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1: TRI-CITIES LANDFILL WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS
COLLECTION SYSTEM, ABATED BY A-3: LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Gas Flow	BAAQMD 8-34-301 and 301.1 and BAAQMD Condition #8366, Parts 4 and 5	Y		Landfill gas collection system shall operate continuously and all collected gases shall be vented to a properly operating control system	BAAQMD 8-34-501.1, 501.2 and BAAQMD Condition #8366, Parts 2 and 11	P/E	Records of Collection and Control System Downtime and Updates to Collection and Control System Design Plan
Gas Flow	BAAQMD 8-34-301 and 301.1	Y		Landfill gas collection system shall operate continuously and all collected gases shall be vented to a properly operating control system	BAAQMD 8-34-501.10 and 508	C	Gas Flow Meter and Recorder (every 15 minutes)
Gas Flow	40 CFR 60.753(a) and (e)	Y		Operate a Collection System in each area or cell and vent all collected gases to a properly operating control system	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
Collection and Control Systems Shutdown Time	BAAQMD 8-34-113.2	Y		≤ 240 hours per year and ≤ 5 consecutive days	BAAQMD 8-34-501.1	P/D	Operating Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1: TRI-CITIES LANDFILL WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS
COLLECTION SYSTEM, ABATED BY A-3: LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Collection System Startup Shutdown or Malfunction	40 CFR 60.755(e)	Y		≤ 5 days per event	40 CFR 60.7(b), 60.757(f)(2) and (f)(4)	P/D	Operating Records (all occurrences and duration of each)
Startup Shutdown or Malfunction Procedures	40 CFR 63.6(e)	Y		Minimize Emissions by Implementing SSM Plan	40 CFR 63.1980(a-b)	P/E	Records (all occurrences, duration of each, corrective actions)
Periods of Inoperation for Parametric Monitors	BAAQMD 1-523.2	Y		≤ 15 consecutive days per incident and ≤ 30 calendar days per 12 month period	BAAQMD 1-523.4	P/D	Operating Records for All Parametric Monitors
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	Operating Records for All Continuous Monitors
Wellhead Pressure	BAAQMD 8-34-305.1	Y		< 0 psig	BAAQMD 8-34-414, 501.9 and 505.1	P/M	Monthly Inspection and Records
Wellhead Pressure	40 CFR 60.753(b)	Y		< 0 psig	40 CFR 60.755(a)(3), 60.756(a)(1), and 60.758(c) and (e)	P/M	Monthly Inspection and Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1: TRI-CITIES LANDFILL WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS
COLLECTION SYSTEM, ABATED BY A-3: LANDFILL GAS FLARE

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 Gas at Wellhead	BAAQMD 8-34-305.2	Y		< 55 °C, except as allowed by BAAQMD Condition #8366, Part 20	BAAQMD 8-34-414, 501.9 and 505.2	P/M	Monthly Inspection and Records
Temperature of Gas at Wellhead	40 CFR 60.753(c)	Y		< 55 °C, except as allowed by BAAQMD Condition #8366, Part 20	40 CFR 60.755(a)(5), 60.756(a)(3), and 60.758(c) and (e)	P/M	Monthly Inspection and Records
Temperature of Gas at Wellhead	BAAQMD Condition # 8366, Part 20a	Y		For Wellheads Specified in BAAQMD Condition #8366, Part 20a or Added to This List per Part 22: < 145 °F	BAAQMD 8-34-414, 501.9 and 505.2 and BAAQMD Condition # 8366, Parts 20 and 22	P/M and P/E	Monthly Inspection and Records and Additional CO Monitoring as Needed
Gas Concentrations at Wellhead	BAAQMD 8-34-305.3 or 305.4	Y		N ₂ < 20% by volume OR O ₂ < 5% by volume, except as allowed by BAAQMD Condition #8366, Part 21	BAAQMD 8-34-414, 501.9 and 505.3 or 505.4	P/M	Monthly Inspection and Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1: TRI-CITIES LANDFILL WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS
COLLECTION SYSTEM, ABATED BY A-3: LANDFILL GAS FLARE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Gas Concentrations at Wellhead	40 CFR 60.753(c)	Y		N ₂ < 20% by volume OR O ₂ < 5% by volume, except as allowed by BAAQMD Condition #8366, Part 21	40 CFR 60.755(a)(5), 60.756(a)(2), and 60.758(c) and (e)	P/M	Monthly Inspection and Records
Gas Concentrations at Wellhead	BAAQMD Condition # 8366, Part 21a	Y		For Wellheads Specified in BAAQMD Condition #8366, Part 21: O ₂ ≤ 15% by volume	BAAQMD 8-34-414, 501.9 and 505.3 or 505.4	P/M	Monthly Inspection and Records
Well Shutdown Limits for Repair, Construction, Fire	BAAQMD 8-34-117.4	Y		No more than 5 wells at a time or ≤ 10% of total collection system, whichever is less	BAAQMD 8-34-117.6 and 501.1	P/D	Records
Well Shutdown Limits for Repair, Construction, Fire	BAAQMD 8-34-117.5	Y		≤ 24 consecutive hours per well	BAAQMD 8-34-117.6 and 501.1	P/D	Records
Landfill Construction Activity Limits	BAAQMD 8-34-118.5	Y		Excavated refuse covered immediately and disposed of ≤ 24 hours	BAAQMD 8-34-118.9 and 501.1	P/D	Records
Landfill Construction Activity Limits	BAAQMD 8-34-118.6	Y		Drilled wells and excavated trenches covered ≤ 8 hours	BAAQMD 8-34-118.9 and 501.1	P/D	Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1: TRI-CITIES LANDFILL WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS
COLLECTION SYSTEM, ABATED BY A-3: LANDFILL GAS FLARE

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		Component Leak Limit: ≤ 1000 ppmv as methane	BAAQMD 8-34-501.6 and 503	P/Q	Quarterly Inspection of collection and control system components with OVA and Records
TOC	BAAQMD 8-34-303	Y		Surface Leak Limit: ≤ 500 ppmv as methane at 2 inches above surface	BAAQMD 8-34-415, 416, 501.6, 506 and 510	P/M, Q, and E	Monthly Visual Inspection of Cover, Quarterly Inspection with OVA of Surface, Various Reinspection Times for Leaking Areas, and Records
TOC	40 CFR 60.753(d)	Y		Surface Leak Limit: < 500 ppmv as methane at 5-10 cm from surface	40 CFR 60.755(c)(1), (4) and (5), 60.756(f), and 60.758(c) and (e)	P/M, Q and E	Monthly Visual Inspection of Cover, Quarterly Inspection with OVA of Surface, Various Reinspection Times for Leaking Areas, and Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1: TRI-CITIES LANDFILL WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS
COLLECTION SYSTEM, ABATED BY A-3: LANDFILL GAS FLARE

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 8-34-301.3	Y		≥ 98% removal by weight OR < 30 ppmv, dry basis @ 3% O ₂ , expressed as methane (applies to A-3 only)	BAAQMD 8-34-412 and 8-34-501.4 and BAAQMD Condition # 8366, Part 10	P/A	Initial and Annual Source Tests and Records
NMOC	40 CFR 60.752(b)(2)(iii)(B)	Y		≥ 98% removal by weight OR < 20 ppmv, dry basis @ 3% O ₂ , expressed as hexane (applies to A-3 only)	40 CFR 60.8 and 60.752(b)(2)(iii)(B) and 60.758(b)(2) and BAAQMD Condition # 8366, Part 10	P/A	Annual Source Test and Records
FP TSP	BAAQMD 6-1-310.1	N		≤ 0.15 grains/dscf (applies to flare only)	None	N	NA
FP	SIP 6-310	Y		≤ 0.15 grains/dscf (applies to flare only)	None	N	NA
Trackout	BAAQMD 6-6-301	N	July 1, 2019	< 25 cumulative linear feet trackout onto public roadway or shoulder AND < 1 quart trackout to remain on public roadway/shoulder at the end of the workday	BAAQMD 6-6-501	D	Monitor trackout twice during the workday; Records
Opacity	BAAQMD 6-6-302	N	July 1, 2019	No darker than Ringelmann No. 1 for ≤ 3 minutes in any hour	BAAQMD 6-6-501	D	Monitor trackout twice during the workday; Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1: TRI-CITIES LANDFILL WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS
COLLECTION SYSTEM, ABATED BY A-3: LANDFILL GAS FLARE

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	N Y		Property Line Ground Level Limits: ≤ 0.5 ppm for 3 consecutive minutes, and ≤ 0.25 ppm averaged over 60 consecutive minutes, and ≤ 0.05 ppm averaged over 24 hours (applies to flare only)	None	N	NA
<u>SO₂</u>	<u>SIP 9-1-301</u>	<u>Y</u>		<u>Property Line Ground Level Limits:</u> <u>< 0.5 ppm for 3 consecutive minutes,</u> <u>and</u> <u>< 0.25 ppm averaged over 60 consecutive minutes, and</u> <u>< 0.05 ppm averaged over 24 hours</u> <u>(applies to flare only)</u>	<u>None</u>	<u>N</u>	<u>NA</u>
Total Sulfur Content in Landfill Gas	BAAQMD Condition # 8366, Part 12	Y		Total Sulfur Content: ≤ 1300 ppmv (dry)	BAAQMD Condition # 8366, Part 12	P/A	Sulfur Analysis of landfill gas only
SO ₂	BAAQMD Regulation 9-1-302	N Y		≤ 300 ppm (dry basis) (applies to flare only)	BAAQMD Condition # 8366, Part 12	P/A	Sulfur Analysis of landfill gas as a surrogate for SO ₂ monitoring

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1: TRI-CITIES LANDFILL WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS
COLLECTION SYSTEM, ABATED BY A-3: LANDFILL GAS FLARE

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	<u>SIP 9-1-302</u>	<u>Y</u>		<u>< 300 ppm (dry basis)</u> <u>(applies to flare only)</u>	<u>BAAQMD Condition # 8366, Part 12</u>	<u>P/A</u>	<u>Sulfur Analysis of landfill gas as a surrogate for SO₂ monitoring</u>
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	None	N	NA
NO _x	BAAQMD Condition #8366, Part 8	Y		≤ 0.06 lb/MMBTU (calculated as NO ₂)	BAAQMD Condition #8366, Part 10	P/A	Annual Source Test
CO	BAAQMD Condition #8366, Part 9	Y		≤ 0.3 lb/MMBTU	BAAQMD Condition #8366, Part 10	P/A	Annual Source Test
Cumulative Waste in Place	BAAQMD Condition #8366, Part 1	Y		< 19,271,000 cubic yards (approximately 13,489,700 tons)	BAAQMD Condition #8366, Part 3	P/D	Records of Waste Received
Flare Heat Input	BAAQMD Condition # 8366, Part 11	Y		Input to Flare: ≤ 1,800 MMBTU/day, ≤ 657,000 MMBTU/yr	BAAQMD Condition # 8366, Parts 10 and 11	P/D,M	Record Calculated Heat Input to the Flare

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S-5: WOODWASTE STOCKPILES; ABATED BY A-5: WATER TRUCK

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 Regulation 6-1-301	N		No Darker Than Ringelmann No. 1 for ≤ 3 minutes in any hour	BAAQMD Condition #15022, Part 3	P/E	Observation of Operations
Opacity	SIP Regulation 6-301 and BAAQMD Condition #15022, Part 2	Y		No Darker Than Ringelmann No. 1 for ≤ 3 minutes in any hour	BAAQMD Condition #15022, Part 3	P/E	Observation of Operations
Opacity	BAAQMD Regulation 6-1-307	N	July 1, 2019	1. No greater than 5 feet long, wide, or high, and no darker than Ringelmann 0.5 for ≤ 3 minutes in any hour 2. No darker than Ringelmann No. 1 for ≤ 3 minutes in any hour	BAAQMD 6-1-506	P/E	Observation of Operations
Trackout	BAAQMD 6-6-301	N	July 1, 2019	< 25 cumulative linear feet trackout onto public roadway or shoulder AND < 1 quart trackout to remain on public roadway/shoulder at the end of the workday	BAAQMD 6-6-501	D	Monitor trackout twice during the workday; Records
Opacity	BAAQMD 6-6-302	N	July 1, 2019	No darker than Ringelmann No. 1 for ≤ 3 minutes in any hour	BAAQMD 6-6-501	D	Monitor trackout twice during the workday; Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – C
Applicable Limits and Compliance Monitoring Requirements
S-24: CONCRETE AND ASPHALT STOCKPILE AREA

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 Regulation 6-1-301	N		No Darker Than Ringelmann No. 1 for ≤ 3 minutes in any hour	BAAQMD Condition #25393, Part 3	C	Observation of Source in Operation
Opacity	SIP Regulation 6-301	Y		No Darker Than Ringelmann No. 1 for ≤ 3 minutes in any hour	BAAQMD Condition #25393, Part 3	C	Continuous Observation of Source in Operation
Opacity	BAAQMD Regulation 6-1-307	N	July 1, 2019	<ol style="list-style-type: none"> 1. No greater than 5 feet long, wide, or high, and no darker than Ringelmann 0.5 for < 3 minutes in any hour 2. No darker than Ringelmann No. 1 for < 3 minutes in any hour 	BAAQMD 6-1-506	P/E	Observation of Operations
Trackout	BAAQMD 6-6-301	N	July 1, 2019	< 25 cumulative linear feet trackout onto public roadway or shoulder AND < 1 quart trackout to remain on public roadway/shoulder at the end of the workday	BAAQMD 6-6-501	D	Monitor trackout twice during the workday; Records
Opacity	BAAQMD 6-6-302	N	July 1, 2019	No darker than Ringelmann No. 1 for ≤ 3 minutes in any hour	BAAQMD 6-6-501	D	Monitor trackout twice during the workday; Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – C
Applicable Limits and Compliance Monitoring Requirements
S-24: CONCRETE AND ASPHALT STOCKPILE AREA

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Material Received	BAAQMD Condition #25393, Part 1	Y		150,000 tons accepted in any consecutive 12-month period	BAAQMD Condition #25393, Part 4	P/D & M	Records
Material Processed	BAAQMD Condition #25393, Part 2	Y		2,500 tons accepted from site and removed from site in any day	BAAQMD Condition #25393, Part 4	P/D & M	Records

VIII. TEST METHODS

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

**Table VIII
 Test Methods**

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD 6-1-301 and SIP 6-301	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions or US EPA Method 9, Visual Determination of the Opacity of Emissions from Stationary Sources
BAAQMD 6-1-310 and SIP 6-310	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulate; or USEPA Method 5, Determination of Particulate Matter Emissions from Stationary Sources
BAAQMD 8-34-301.2	Collection and Control System Component Leak Limitations	US EPA Reference Method 21, Determination of Volatile Organic Compound Leaks
BAAQMD 8-34-301.3	NMOC Limits for Flares	Manual of Procedures, Volume IV, ST-7, Organic Compounds and ST-14, Oxygen, Continuous Sampling; or US EPA Reference Method 18, 25, 25A, or 25C
BAAQMD 8-34-303	Landfill Surface Leak Limit	US EPA Reference Method 21, Determination of Volatile Organic Compound Leaks
BAAQMD 8-34-305.1	Wellhead Gauge Pressure	APCO Approved Device
BAAQMD 8-34-305.2	Temperature Limit for Gas at Wellheads	APCO Approved Device
BAAQMD 8-34-305.3	Nitrogen Limit for Gas at Wellheads	US EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources
BAAQMD 8-34-305.4	Oxygen Limit for Gas at Wellheads	US EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources
BAAQMD 8-34-412	Compliance Demonstration Test	US 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

VIII. Test Methods

**Table VIII
 Test Methods**

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD 9-1-301	Limitations on Ground Level Concentrations (SO ₂)	Manual of Procedures, Volume VI, Part 1, Ground Level Monitoring for Hydrogen Sulfide and Sulfur Dioxide
BAAQMD 9-1-302	General Emission Limitation (SO ₂)	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling
BAAQMD 9-1-304	Liquid Fuel Sulfur Content Limit	Manual of Procedures, Volume III, Method 10, Determination of Sulfur in Fuel Oil
BAAQMD 9-2-301	Limitations on Hydrogen Sulfide	Manual of Procedures, Volume VI, Part 1, Ground Level Monitoring for Hydrogen Sulfide and Sulfur Dioxide
40 CFR 60.8	Performance Tests	US 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 Outlet Concentration and Destruction Efficiency Limits	US 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 60.753(b)	Wellhead Pressure	APCO Approved Device
40 CFR 60.753(c)	Temperature, N ₂ , and O ₂ concentration in wellhead gas	US EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources
40 CFR 60.753(d)	Methane Limit at Landfill Surface	US EPA Reference Method 21, Determination of Volatile Organic Compound Leaks
BAAQMD Condition #8366, Part 6	Flare Combustion Temperature Limit	APCO Approved Device
BAAQMD Condition #8366, Part 8	Flare NO _x Limit	Manual of Procedures, Volume IV, ST-13A, 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
BAAQMD Condition #8366, Part 9	Flare CO Limit	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD Condition #8366, Part 10	Flare Source Test	Flare Outlet: Manual of Procedures, Volume IV, ST-17, Stack Gas Velocity and Volumetric Flow Rate; ST-23 Water Vapor; ST-14, Oxygen, Continuous Sampling; and Manual of Procedures, Volume IV, ST-7, Organic Compounds or US EPA Reference Methods 18, 25, 25A, or 25C; Flare Inlet: US EPA Reference Method 3C
BAAQMD Condition #8366, Part 11	Heat Input Limit for Flare	APCO approved calculation procedure as described in BAAQMD Condition #8366, Part 11.
BAAQMD Condition #8366, Part 12	Limit for Total Reduced Sulfur Compounds in Landfill Gas	Draeger Tube: used in accordance with manufacturer's recommended procedures.
BAAQMD Condition #8366, Part 20a	Alternative Temperature Limit for Gas at Specified Wellheads	APCO Approved Device
BAAQMD Condition #8366, Part 21a	Alternative Oxygen Limit for Gas at Specified Wellheads	US EPA Reference Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources
BAAQMD Condition #15022, Part 2	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions or US EPA Method 9, Visual Determination of the Opacity of Emissions from Stationary Sources

IX. PERMIT SHIELD

Not Applicable

X. REVISION HISTORY

Title V Permit Issuance (Application #17350): **November 28, 2001**

Administrative Permit Amendment (no application): **June 5, 2003**

- Deletion of outdated SIP Requirements

Reopening (Applications #3515 and #8916): **November 1, 2004**

- Correct contact information on the title page.
- Update standard language in Sections I, III, and VIII.
- Correct regulatory references and amendment dates and delete outdated SIP requirements in Section I, Tables III, IV-A, IV-D, VII-A, VII-D, and VIII, and Condition # 8366, Parts 8, 16, and 17.
- Correct collection system description in Table II-A and Condition # 8366, Part 2 (update number of collection wells).
- Expand the description of A-2 in Table II-B and delete references to obsolete limits.
- Add several recently identified generally applicable regulations to Table III. Move Regulation 8-40-116 and 117 from Tables IV-A and VII-A to Table III.
- Add several applicable requirements that were missing from Tables IV-A and VII-A including Regulations 6-310 and 8-34-501.3, and 40 CFR 60.752(b)(2)(iii)(B), 60.756(b)(1), and 60.758(b)(2)(i-ii) for the flare and Regulations 8-34-304.4 and 8-34-408.2 for the landfill.
- Add MSW Landfill NESHAP requirements to Tables IV-A and VII-A.
- Revise Condition # 8366 and Table IV-A by adding Part 17. This part requires semi-annual reports pursuant to the above NESHAP requirements and allows these reports to be combined with the Title V semi-annual monitoring reports.
- Revise Condition # 8336, Part 6 for consistency with MFR permit revision procedures in Regulation 2, Rule 6.
- Revise Condition # 8336, Part 8 to allow 60 days for submitting source test results instead of 45.
- Correct an applicable requirement in Tables IV-C, VII-C, and VIII and the associated basis for Condition # 17860, Part 2. The S-9 Portable Diesel Engine is subject to Regulation 6-303 and not 6-301, because the engine displacement is less than 1500 in³.
- Reword the condition bases for several parts in Condition #8366, #15022, and #17860 and in Tables IV-A, IV-B, and IV-C.
- In Table VIII, add an alternative test method for BAAQMD Regulation 6-310, Particulate Weight Limitation; add missing test method references for Condition # 8366, Part 8; and correct an erroneous reference for Condition # 8366, Part 15.
- Correct and update Section X Revision History.
- Add and correct several terms in the Section XI Glossary.

X. Revision History

Minor Permit Revision (Application #9790):

- Replace existing Landfill Gas Flare A-2 with new Landfill Gas Flare A-3.
- Remove Custom Schedule of Compliance previously added to accommodate the use of a temporary landfill gas flare.

Minor Permit Revision (Application #9222):

- Added existing Diesel IC Engines S-14, S-15, S-16, and S-17 to Title V permit.
- Added proposed Landfill Gas Fired IC Engine Generator Sets S-18, S-19, and S-20.
- Added tables and permit conditions to reflect the additions of permitted and proposed equipment.
- Updated Table VIII to include “Test Methods” for new equipment.
- Modified standard permit text to say that SIP standards are now found on EPA's website and are not included as part of the permit. Part XII. “Applicable State Implementation Plan” was removed from the permit

Significant Permit Revision (Application #9907):

August 16, 2006

- Updated permit content to the current District standard.
- Replaced Permit Condition #8366, part 17 with a condition that does not require a determination of compliance with a 15 lb/day VOC limit.
- Added a Permit Shield that subsumes the monitoring requirements of Regulation 8-2 with those of Regulation 8-40.

Title V Renewal (Application #14588):

November 2, 2007

- Updated applicable dates in parts B, F, and G to reflect the issuance date of the renewal permit.
- Added Standard Condition I.B.12 to clarify that the permit holder is responsible for compliance, and certification of compliance, with all conditions of the permit, regardless whether it acts through employees, agents, contractors, or subcontractors.
- Removed all references to the proposed, but uninstalled landfill gas fired IC Engine/Generators S-18, S-19, and S-20.
- Removed Table IV-C for the Portable Diesel Engine S-9. The Applicable Requirements for all (5) Portable Diesel Engines was be consolidated into a single table (Table IV-D).
- Added the applicable requirements of the Airborne Toxic Control Measures (ATCM) for Portable Diesel Engines to Table IV-D.
- Updated the permit condition requirements for the Portable Diesel Engines in Table IV-D to reflect consolidation and new ATCM requirements.

X. Revision History

- Updated landfill gas collection system components in Permit Condition #8366, Part 2.
- Replaced Permit Condition #8366, part 17 to streamline monitoring requirements.
- Deleted Permit Condition #17680.
- Updated Permit Condition #21617 to reflect new ATCM requirements for Portable Diesel Engines.
- Removed Table VII-C for the Portable Diesel Engine S-9. The applicable limits and monitoring requirements for all (5) Portable Diesel Engines were consolidated into a single table (Table VII-D).
- Added the applicable limits and monitoring requirements of the Airborne Toxic Control Measures (ATCM) for Portable Diesel Engines to Table VII-D.
- Removed all test methods associated with Permit Conditions #17680 and #21619 from Table VIII because the conditions were deleted from the permit.

Title V Permit Renewal (Application #24421):

May 5, 2014

- Added and revised introductions in Sections I, III, IV, VII, and VIII to conform to current standard text.
- In Section II, revised description for S-1; deleted 5 diesel engines and a parts cleaner since they were removed from service; added newly permitted S-24.
- Corrected and updated regulatory references, amendment dates, and federal enforceability status throughout the permit.
- Added several BAAQMD, new California regulations, and federal regulations to Table III.
- Removed regulations that apply to active landfills in Table IV-A, since the landfill has ceased accepting waste; added a closure reporting requirement and a new federal regulation.
- Section IV, VI, VII deleted tables and conditions for the sources removed from service and added table and conditions for new source, S-24.
- Updated landfill permit conditions by removing requirements that only apply to active landfills, incorporating standard format and revisions from NSR applications for landfill collection system components (NSR Applications #17061, 22571).
- Updated test method references in Table VIII.
- Deleted the permit shield since the landfill has ceased accepting waste and the referenced regulations no longer apply.
- Updated Section X Revision History and Section XI Glossary.

Administrative Amendment (Application #28366):

March 8, 2017

- Updated Responsible Official, Plant Contact, and mailing address.

X. Revision History

Title V Permit Renewal (Application #29567):

2019

- Corrected spelling of the name of the Responsible Official and Plant Contact.
- Corrected and updated regulatory references and amendment dates throughout the permit.
- Updated landfill permit conditions by editing permit condition #8366 parts 2, 4, and 21 to allow for less than continuous operation and higher operating value provisions of the leachate cleanout risers (NSR Application #26068).
- Updated Section X Revision History and Section XI Glossary

XI. GLOSSARY

ACT

Federal Clean Air Act

AP-42

An EPA Document “Compilation of Air Pollution Emission Factors” that is used to estimate emissions from numerous source types. It is available electronically from EPA’s web site at: <http://www.epa.gov/ttn/chief/ap42/index.html>

APCO

Air Pollution Control Officer: Head of Bay Area Air Quality Management District

API

American Petroleum Institute

ARB

Air Resources Board (same as CARB)

ASTM

American Society for Testing and Materials

ATC

Authority to Construct

ATCM

Airborne Toxic Control Measure

BAAQMD

Bay Area Air Quality Management District

BACT

Best Available Control Technology

BARCT

Best Available Retrofit Control Technology

Basis

The underlying authority that allows the District to impose requirements.

C1

An organic chemical compound with one carbon atom, for example: methane

XI. GLOSSARY

C3

An organic chemical compound with three carbon atoms, for example: propane

C5

An Organic chemical compound with five carbon atoms

C6

An Organic chemical compound with six carbon atoms

C₆H₆

Benzene

CAA

The federal Clean Air Act

CAAQS

California Ambient Air Quality Standards

CAPCOA

California Air Pollution Control Officers Association

CARB

California Air Resources Board (same as ARB)

CCR

California Code of Regulations

CEC

California Energy Commission

CEM

A "continuous emission monitor" is a monitoring device that provides a continuous direct measurement of some pollutant (e.g. NO_x concentration) in an exhaust stream.

CEQA

California Environmental Quality Act

CEM

A "continuous emission monitor" is a monitoring device that provides a continuous direct measurement of some pollutant (e.g. NO_x concentration) in an exhaust stream.

XI. GLOSSARY

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.

CH₄ or CH₄

Methane

CI

Compression Ignition

CIWMB

California Integrated Waste Management Board

CO

Carbon Monoxide

CO₂ or CO₂

Carbon Dioxide

CO_{2e}

Carbon Dioxide Equivalent. A carbon dioxide equivalent emission rate is the emission rate of a greenhouse gas compound that has been adjusted by multiplying the mass emission rate by the global warming potential of the greenhouse gas compound. These adjusted emission rates for individual compounds are typically summed together, and the total is also referred to as the carbon dioxide equivalent (CO_{2e}) emission rate.

CT

Combustion Zone Temperature

Cumulative Increase

The sum of permitted emissions from each new or modified source since a specified date. Used to determine whether threshold-based requirements are triggered.

District

The Bay Area Air Quality Management District

XI. GLOSSARY

E 6, E9, E12

Very large or very small number values are commonly expressed in a form called scientific notation, which consists of a decimal part multiplied by 10 raised to some power. For example, 4.53 E 6 equals $(4.53) \times (10^6) = (4.53) \times (10 \times 10 \times 10 \times 10 \times 10 \times 10) = 4,530,000$. Scientific notation is used to express large or small numbers without writing out long strings of zeros.

EG

Emission Guidelines

EGT

Exhaust Gas Temperature

EO

Executive Order

EPA

The federal Environmental Protection Agency.

Excluded

Not subject to any District regulations.

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.

FR

Federal Register

GDF

Gasoline Dispensing Facility

GHG

Greenhouse Gas

XI. GLOSSARY

GLC

Ground level concentration.

GLM

Ground Level Monitor

grains

1/7000 of a pound

GWP

Global Warming Potential. A comparison of the ability of each greenhouse gas to trap heat in the atmosphere relative to that of carbon dioxide over a specific time period.

H₂S or H₂S

Hydrogen Sulfide

H₂SO₄ or H₂SO₄

Sulfuric Acid

H&SC

Health and Safety Code

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.

Hg

Mercury

HHV

Higher Heating Value. The quantity of heat evolved as determined by a calorimeter where the combustion products are cooled to 60F and all water vapor is condensed to liquid.

LEA

Local Enforcement Agency

LFG

Landfill gas

XI. GLOSSARY

LHV

Lower Heating Value. Similar to the higher heating value (see HHV) except that the water produced by the combustion is not condensed but retained as vapor at 60 °F.

Long ton

2200 pounds

Major Facility

A facility with potential emissions of: (1) at least 100 tons per year of any 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.

MAX or Max.

Maximum

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.

MIN or Min.

Minimum

MOP

The District's Manual of Procedures.

MSDS

Material Safety Data Sheet

MSW

Municipal solid waste

MW

Molecular weight

N2 or N₂

Nitrogen

NA

Not Applicable

XI. GLOSSARY

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 (Same as NMOC)

NMOC

Non-methane Organic Compounds (Same as NMHC)

NO_x or NO_x

Oxides of nitrogen.

NO₂ or NO₂

Nitrogen Dioxide.

NSPS

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

NSR

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

O₂ or O₂

Oxygen

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, NO_x, PM₁₀, and SO₂.

PERP

Portable Equipment Registration Program

XI. GLOSSARY

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 or PM₁₀

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

PM2.5 or PM_{2.5}

Particulate matter with aerodynamic equivalent diameter of less than or equal to 2.5 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.

PV or P/V Valve or PRV

Pressure/Vacuum Relief Valve

Regulated Organic Liquid

"Regulated organic liquids" are those liquids which require permits, or which are subject to some regulation, when processed at a liquid-handling operation. For example, for refinery marine terminals, regulated organic liquids are defined as "organic liquids" in Regulation 8, Rule 44.

RICE

Reciprocating Internal Combustion Engine

XI. GLOSSARY

RMP

Risk Management Plan

RWQCB

Regional Water Quality Control Board

S

Sulfur

SCR

A "selective catalytic reduction" unit is an abatement device that reduces NO_x concentrations in the exhaust stream of a combustion device. SCRs utilize a catalyst, which operates at a specific temperature range, and injected ammonia to promote the conversion of NO_x compounds to nitrogen gas.

Short ton

2000 pounds

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 or SO₂

Sulfur dioxide

SO₃ or SO₃

Sulfur trioxide

SSM

Startup, Shutdown, or Malfunction

SSM Plan

A plan, which states the procedures that will be followed during a startup, shutdown, or malfunction, that is prepared in accordance with the general NESHAP provisions (40 CFR Part 63, Subpart A) and maintained on site at the facility.

TAC

Toxic Air Contaminant (as identified by CARB)

XI. GLOSSARY

TBACT

Best Available Control Technology for Toxics

THC

Total Hydrocarbons (NMHC + Methane)

therm

100,000 British Thermal Unit

Title V

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

TOC

Total Organic Compounds includes all NMOC plus methane (same as THC).

TPH

Total Petroleum Hydrocarbons

TRMP

Toxic Risk Management Policy: In 1987, BAAQMD adopted a "Toxic Risk Management Policy" to implement the District's new source review requirements for new and modified sources of toxic air contaminants. The TRMP was replaced by BAAQMD Regulation 2, Rule 5 on June 15, 2005. The previous TRMP and the subsequent rule are not federally enforceable.

TRS

Total Reduced Sulfur, which is a measure of the amount of sulfur-containing compounds in a gas stream, typically a fuel gas stream, including, but not limited to, hydrogen sulfide. The TRS content of a fuel gas determines the concentration of SO₂ that will be present in the combusted fuel gas, since sulfur compounds are converted to SO₂ by the combustion process.

TSP

Total Suspended Particulate

TVP

True Vapor Pressure

VOC

Volatile Organic Compounds

XI. GLOSSARY

VMT

Vehicle Miles Traveled

Symbols:

<	=	less than
>	=	greater than
≤	=	less than or equal to
≥	=	greater than or equal to

Units of Measure:

atm	=	atmospheres
bbl	=	barrel of liquid (42 gallons)
bhp	=	brake-horsepower
btu	=	British Thermal Unit
BTU	=	British Thermal Unit
°C	=	degrees Centigrade
cfm	=	cubic feet per minute
dscf	=	dry standard cubic feet
°F	=	degrees Fahrenheit
ft ³	=	cubic feet
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
gr	=	grains (7000 grains = 1 pound)
hp	=	horsepower
hr	=	hour
in	=	inches
kW	=	kilowatts
kg	=	kilograms
lb	=	pound
lbmol	=	pound-mole
M	=	thousand
M cf	=	thousand cubic feet
M scf	=	thousand standard cubic feet
m ²	=	square meter
m ³	=	cubic meters
Mg	=	mega-grams (1000 kg)
min	=	minute
mm	=	millimeter
mm Hg	=	millimeters of mercury (pressure)

XI. GLOSSARY

MM	=	million
MM BTU	=	million BTU
MM cf	=	million cubic feet
MM scf	=	million standard cubic feet
MW	=	megawatts
ppb	=	parts per billion
ppbv	=	parts per billion, by volume
ppm	=	parts per 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
scf	=	standard cubic feet
scfm	=	standard cubic feet per minute
sdcf	=	standard dry cubic feet
sdcfm	=	standard dry cubic feet per minute
therms	=	1 therm = 100,000 BTU
yd	=	yard
yd ³	=	cubic yards
yr	=	year