Bay Area Air Quality Management District

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

Final

MAJOR FACILITY REVIEW PERMIT

Issued To:

Redwood Landfill, Inc.
Facility #A1179

Facility Address:
8950 Redwood Highway
Novato CA 94948

Mailing Address:
P. O. Box 793
Novato CA 94948

Responsible Official	**Facility Contact**
Ramin Khany	Alisha McCutcheon
District Manager	Technical Manager
415-892-2851	415-408-9055

Type of Facility:	Landfill for Solid Waste Disposal	BAAQMD Engineering Division Contact:
Primary SIC:	4953	Carol S. Allen
Product:	Refuse and Sludge Disposal	

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Signed by Jeff McKay for Jack P. Broadbent — December 19, 2014

Jack P. Broadbent, Executive Officer/Air Pollution Control Officer — Date

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I. STANDARD CONDITIONS

A. Administrative Requirements

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

BAAQMD Regulation 1 - General Provisions and Definitions
(as amended by the District Board on 5/4/11);

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);

SIP Regulation 2, Rule 1 - Permits, General Requirements
(as approved by EPA through 1/26/99);

BAAQMD Regulation 2, Rule 2 - Permits, New Source Review
(as amended by the District Board on 6/15/05);

SIP Regulation 2, Rule 2 - Permits, New Source Review and Prevention of Significant Deterioration
(as approved by EPA through 1/26/99);

BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking
(as amended by the District Board on 12/19/12);

SIP Regulation 2, Rule 4 - Permits, Emissions Banking
(as approved by EPA through 1/26/99);

BAAQMD Regulation 2, Rule 5 – Permits, New Source Review of Toxic Air Contaminants
(as amended by the District Board on 1/6/10);

BAAQMD Regulation 2, Rule 6 - Permits, Major Facility Review
(as amended by the District Board on 4/16/03); 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 April 5, 2012 and expires on April 4, 2017. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than October 4, 2017 and no earlier than April 4, 2016. **If a complete application for renewal has not been submitted in accordance with this deadline, the facility may not operate after April 4, 2017.** If the permit renewal has not been issued by April 4, 2017, 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 that the permittee considers to contain proprietary or trade secret information shall be prominently designated as such. Copies of any such proprietary or trade secret information which are provided to the District shall be maintained by the District in a locked confidential file, provided, however, that requests from the public for the review of any such information shall be handled in accordance with the District's procedures set forth in Section 11 of the District's Administrative Code. (Regulation 2-6-419; MOP Volume II, Part 3, §4.11)
9. Proprietary or trade secret information provided to EPA will be subject to the requirements of 40 CFR Part 2, Subpart B - Public Information, Confidentiality of Business Information. (40 CFR Part 2)
10. The emissions inventory submitted with the application for this Major Facility Review Permit is an estimate of actual emissions or the potential to emit 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)

I. Standard Conditions

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; MOP Volume II, Part 3, §4.7)

F. Monitoring Reports

Reports of all required monitoring must be submitted to the District at least once every six months, except where an applicable requirement specifies more frequent reporting. 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

I. Standard Conditions

days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions. The reports shall be sent to the following address:

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

(Regulation 2-6-502; 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 shall be sent to the Environmental Protection Agency at the following address:

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

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

H. Emergency Provisions

1. The permit holder may seek relief from enforcement action in the event of a breakdown, as defined by Regulation 1-208 of the District's Rules and Regulations, by following the procedures contained in Regulations 1-431 and 1-432. The District will thereafter determine whether breakdown relief will be granted in accordance with Regulation 1-433. (MOP Volume II, Part 3, §4.8)
2. The permit holder may seek relief from enforcement action for a violation of any of the terms and conditions of this permit by applying to the District's Hearing

I. Standard Conditions

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-2	Sewage Sludge Storage, Main Pond			106 dry tons (528 wet tons) per day and 21,120 dry tons (105,600 wet tons) per year
S-5	Redwood Landfill – Waste Decomposition Process	Types of waste accepted include municipal, commercial, industrial, construction, designated, and special wastes.		Max. Design Capacity = 25.0 E6 yd^3 Max. Cumulative Decomposable Materials In Place = 23.185 E6 tons in place Max. Decomposable Material Acceptance Rate = 541,140 tons/year
	Landfill Gas Collection System, Active	With well and collector counts updated pursuant to Condition #19867, Part 17b		95 vertical wells and 7 horizontal collectors
S-34	Compost Facility Operations	Uncontrolled Windrows and Associated Windrow Formation and Turning Activities, Curing Piles, and Product Stockpiles		50,000 tons/year
S-39	Trommel Screening Processes	Powered by Electric Motors or S-62		50,000 tons/year
S-41	Temporary Stockpiles for Yard and Green Waste Shredding Operation	Temporary Stockpiles from CARB registered portable tub grinder		80 tons/hour, 820 tons/day, and 200,000 tons/year
S-42	Soil and Cover Material Stockpiles			1,160 tons/day and 105,500 tons/year

II. Equipment

Table II - A
Permitted Sources

S-#	Description	Make or Type	Model	Capacity
S-49	Diesel Engine for Emergency Back-Up Generator	Cummins	6BT-5.9	166 bhp, 360 in^3, 7.9 gallons/hour diesel oil, 1.1 E6 BTU/hour
S-55	Non-Retail Gasoline Dispensing Facility G # 8573 (Phase I is Two Point, Phase II is Vapor Balance)	1 Above Ground Tank 1 Gasoline Nozzle	Emco Wheaton 4005	1000 gallon capacity 10 gallons/minute
S-56	Portable Horizontal Grinder; equipped with integral water sprays; CARB Portable Equipment Registration Permit # 117378	Peterson Pacific Corporation	Model HC5400	80 tons/hour
S-58	Aerated Leachate Pond; equipped with up to eight solar powered aeration units	Custom Design; 10 acres		4500 gallons/hour leachate influent, 5 scfm of air per aeration unit
S-63	Dry Waste Materials Recovery Facility	Includes: Conveyor System, Magnetic and Hand Sorting Areas, 9 Inch Screen, and 2 Inch Screen; All Equipment is Electrically Powered.		400 tons/day and 124,800 tons/year'of Waste Materials
S-76	Redwood Landfill – Waste and Cover Material Dumping	Wastes: MSW, commercial, industrial, construction, designated, and special wastes. Cover Materials: clean soil, non-hazardous VOC-laden soil, compost, co-compost, and shredded green waste.		Max. Waste Acceptance Rate = 2,310 tons/day Max. Cover Placement Rate = 1,160 tons/day
S-77	Redwood Landfill – Excavating, Bulldozing, and Compacting Activities	No. and Type of Vehicles: 1 Backhoe 3 Bulldozers 2 Compactor		36 hours/day total for all vehicles (annual average), 311 operating days/year, 11,196 hours/year (maximum)

II. Equipment

B. Abatement Device List

Table II – B
Abatement Devices

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
A-18	Water Sprays	S-34, S-39, S-41, S-42, S-76 and S-77	BAAQMD 6-1-301	None	Ringelmann No. 1
A-51	Landfill Gas Flare, Perennial Energy, Inc., FL-144-38-E, 90 E6 BTU/hour	S-5	BAAQMD 8-34-301.3, see also Table IV-B	Minimum combustion zone temperature of 1400 °F, see also Table VII-B	≥ 98% destruction of NMOC or < 30 ppmv of NMOC, as CH_4, at 3% O_2, dry
A-60	Landfill Gas Flare, Perennial Energy, Inc., FL-144-40-E, 90 E6 BTU/hour	S-5	BAAQMD 8-34-301.3, see also Table IV-B	Minimum combustion zone temperature for both Zone A and Zone B of 1400 °F, see also Table VII-B	≥ 98% destruction of NMOC or < 30 ppmv of NMOC, as CH4, at 3% O2, dry
A-63	Water Sprays	S-63	BAAQMD Condition #25260, Parts 3 and 5 and BAAQMD 6-1-301	None	Ringelmann No. 1

II. Equipment

C. Exempt Equipment List

Each of the following devices is exempt from major facility review permitting pursuant to the requirements of BAAQMD Regulation 2, Rule 6: Permits, Major Facility Review. The applicable exemption for each device is identified in the table below. Registered portable engines and non-road engines are exempt from BAAQMD Regulation 2, Rule 6 pursuant to BAAQMD Regulation 2-6-113 and 2-6-114, respectively, even though these engines may be required to have a BAAQMD permit to operate pursuant to BAAQMD Regulation 2, Rule 1, Permit, General Requirements. This table may include other types of equipment that are exempt from the requirement to have a BAAQMD permit to operate pursuant to BAAQMD Regulation 2, Rule 1. Equipment that is exempt from BAAQMD permitting requirements does not need to be included in this permit unless the equipment is a significant source, as defined in BAAQMD, Regulation 2-6-239. Any source that must be included in this permit because it is a significant source will be listed in a separate table.

Table II C – Exempt Equipment

S-#	Description	Type or Make and Model	Capacity	Comments
S-57	PERP Diesel Engine for Portable Horizontal Grinder	Caterpillar, Model 3412E, Model Year 2002	860 bhp, 1649 in^3, 44.8 gallons/hr diesel oil, 6.14 E6 BTU/hour	Exempt per 2-6-113 and 2-6-114
S-61	Portable Diesel Engine for Waste Tipper; abated by A-61, Catalyzed Diesel PM Filter	S-61: John Deere, 4045HF285, Model Year 2008; A-61: CleanAir, Permit FDA126	125 bhp, 275 in^3, 6.76 gallons/hr diesel oil, 0.9 E6 BTU/hour; $\geq$ 85% removal of diesel PM	Exempt per 2-6-114
S-62	Portable Diesel Engine for Power Screens; abated by A-62, Catalyzed Diesel PM Filter	S-62: John Deere, 4045HF285, Model Year 2008; A-62: CleanAir, Permit FDA126	125 bhp, 275 in^3, 6.76 gallons/hr diesel oil, 0.9 E6 BTU/hour; $\geq$ 85% removal of diesel PM	Exempt per 2-6-114

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 the SIP requirements are posted on the EPA Region 9 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

NOTE:

There are differences between the current BAAQMD rules and the versions 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)	N
BAAQMD 2-1-429	Federal Emissions Statement (12/21/04)	N
SIP Regulation 2, Rule 1	Permits – General Requirements (1/26/99)	Y

III. Generally Applicable Requirements

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
SIP 2-1-429	Federal Emissions Statement (4/3/95)	Y
BAAQMD Regulation 2, Rule 5	Permits – New Source Review of Toxic Air Contaminants (1/6/10)	N
BAAQMD Regulation 4	Air Pollution Episode Plan (3/20/91)	N
SIP Regulation 4	Air Pollution Episode Plan (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 (12/5/07)	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 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
BAAQMD 8-40-116	Exemption, Small Volume (12/15/99)	Y
BAAQMD 8-40-117	Exemption, Accidental Spills (12/15/99)	Y
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

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 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 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
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
California Health and Safety Code, Title 17, Section 93105	Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying and Surface Mining Operations (7/26/01)	N
California Health and Safety Code, Title 17, Section 93106	Asbestos Airborne Toxic Control Measure for Asbestos Containing Serpentine (7/20/00)	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 (9/13/10)	Y
40 CFR Part 61, Subpart M	National Emission Standards for Hazardous Air Pollutants – National Emission Standard for Asbestos (7/20/04)	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 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

All other text may be found in the regulations themselves.

Table IV – A
Source-Specific Applicable Requirements
S-2 SEWAGE SLUDGE STORAGE, MAIN POND

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 8, Rule 2	**Organic Compounds – Miscellaneous Operation (7/20/05)**		
8-2-301	Miscellaneous Operations	Y	
BAAQMD Regulation 9, Rule 2	**Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/99)**		
9-2-301	Limitations on Hydrogen Sulfide	N	
BAAQMD Condition #96			
Part 1	Odor Abatement Requirements (Regulation 1-301)	N	

IV. Source Specific Applicable Requirements

Table IV – B
Source-Specific Applicable Requirements
S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE;
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS;
S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

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	
1-523.3	Reports of Violations	Y	
BAAQMD Regulation 6, Rule 1	**Particulate Matter – General Requirements (12/5/07)**		
6-1-301	Ringelmann No. 1 Limitation	N	
6-1-305	Visible Particles	N	
6-1-310	Particle Weight Limitation (applies to flares only)	N	
6-1-401	Appearance of Emissions	N	
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 flares only)	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Regulation 8, Rule 2	**Organic Compounds – Miscellaneous Operation (7/20/05)**	**Y**	

IV. Source Specific Applicable Requirements

Table IV – B
Source-Specific Applicable Requirements
S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE;
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS;
S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-2-301	Miscellaneous Operations	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	
8-34-116	Limited Exemption, Well Raising	Y	
8-34-116.1	New Fill	Y	
8-34-116.2	Limits on Number of Wells Shutdown	Y	
8-34-116.3	Shutdown Duration Limit	Y	
8-34-116.4	Capping Well Extensions	Y	
8-34-116.5	Well Disconnection Records	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	
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	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
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	Limits for Enclosed Flares (applies to flares)	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	Wellhead Vacuum Requirement	Y	
8-34-305.2	Wellhead Temperature Limit	Y	
8-34-305.3	Nitrogen Concentration Limit for Wellhead Gas or	Y	
8-34-305.4	Oxygen Concentration Limit for Wellhead Gas	Y	
8-34-405	Design Capacity Reports	Y	
8-34-408	Collection and Control System Design Plans	Y	
8-34-408.2	Sites With Existing Collection and Control Systems	Y	
8-34-411	Annual Report	Y	
8-34-412	Compliance Demonstration Tests	Y	
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	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
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 flares)	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	
8-34-504	Portable Hydrocarbon Detector	Y	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-34-505	Well Head Monitoring	Y	
8-34-506	Landfill Surface Monitoring	Y	
8-34-507	Continuous Temperature Monitor and Recorder (applies to flares)	Y	
8-34-508	Gas Flow Meter	Y	
8-34-510	Cover Integrity Monitoring	Y	
BAAQMD Regulation 8, Rule 40	**Organic Compounds – Aeration of Contaminated Soil and Removal of Underground Storage Tanks (6/15/05)**		
8-40-110	Exemption, Storage Pile	Y	
8-40-112	Exemption, Sampling	Y	
8-40-113	Exemption, Non-Volatile Hydrocarbons	Y	
8-40-116	Exemption, Small Volume	Y	
8-40-116.1	Volume does not exceed 1 cubic yard	Y	
8-40-116.2	Volume does not exceed 8 cubic yards, organic content does not exceed 500 ppmw, may be used only once per quarter	Y	
8-40-117	Exemption, Accidental Spills	Y	
8-40-118	Exemption, Aeration Projects of Limited Impact	Y	
8-40-301	Uncontrolled Contaminated Soil Aeration	Y	
8-40-304	Active Storage Piles	Y	
8-40-305	Inactive Storage Piles	Y	
BAAQMD Regulation 9, Rule 1	**Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)**		
9-1-301	Limitations on Ground Level Concentrations (applies to flares only)	Y	
9-1-302	General Emission Limitations (applies to flares only)	Y	
BAAQMD Regulation 9, Rule 2	**Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/99)**		
9-2-301	Limitations on Hydrogen Sulfide	N	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
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)	Control devices operated using good air pollution control practice	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.13(a)	Applies to all continuous monitoring systems	Y	
60.13(b)	Monitors shall be installed and operational 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	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
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	
60.752 (b)(2)(iii)(B)	Reduce NMOC emissions by 98% by weight or reduce NMOC outlet concentration to less than 20 ppmv as hexane at 3% O_2, dry basis, as demonstrated by initial performance test within 180 days of start-up. (applies to flares)	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 date 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	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
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)	Operate each wellhead at < 55 °C, and either < 20% N_2 or < than 5% O_2 (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 is less than 500 ppm methane above background at landfill surface. This section also describes some 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	
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	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
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	
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 2nd excess.	Y	
60.755 (c)(4)(iv)	Re-monitor within 1 month of initial 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)(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 1st 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	
60.756(e)	Procedures for requesting alternative monitoring parameters	Y	
60.756(f)	Monitor surface on a quarterly basis.	Y	
60.757	Reporting Requirements	Y	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.757(a)(3)	Amended Design Capacity Report required within 90 days of receiving a permitted increase in design capacity or within 90 days of an annual density calculation that results in a design capacity over the thresholds.	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) above.	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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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-degradable 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 is 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	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.758(c)(2)	Records of continuous flow to control device or monthly inspection records if seal and lock for bypass valves	Y	
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(b)	Gas Collection System Components	Y	
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	

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Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
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, gas generation rate 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	Record Keeping and reporting requirements	Y	
63.10(b)	General record keeping requirements	Y	
63.10(b)(2)	For affected sources, maintain relevant records of:	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	
40 CFR Part 63, Subpart AAAA	**National Emission Standards for Hazardous Air Pollutants – Municipal Solid Waste Landfills (4/20/06)**		
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	

IV. Source Specific Applicable Requirements

Table IV – B
Source-Specific Applicable Requirements
S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE;
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS;
S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
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 # 19867			
Part 1	Design capacity limit (Regulation 2-1-301)	Y	
Part 2	Cumulative decomposable waste limit (Regulations 2-1-301 and 2-5-302, Cumulative Increase and Offsets)	Y	
Part 3	Waste acceptance rate limits (Regulation 2-1-301)	Y	
Part 4	Cover materials usage limits (Regulation 2-1-301)	Y	
Part 5	Record keeping requirements for Parts 1-4 (Regulations 2-1-301, 8-34-501, and 40 CFR 60.758)	Y	
Part 6	Off-site vehicle fleet weight limit (Regulation 2-1-301)	Y	

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Table IV – B
Source-Specific Applicable Requirements
S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE;
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS;
S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
Part 7	On-site vehicle fleet weight limit (Regulation 2-1-301)	Y	
Part 8	Limit on vehicle miles traveled for off-site vehicle fleet (Regulation 2-1-301)	Y	
Part 9	Limit on vehicle miles traveled for on-site vehicle fleet (Regulation 2-1-301)	Y	
Part 10	Record keeping requirements for Parts 6-9 (Regulations 2-1-301, 8-34-501, and 40 CFR 60.758)	Y	
Part 11	Particulate emissions control measures (Regulations 1-301, 2-1-301, and 6-1-301)	Y	
Part 12	Public nuisance consequences (Regulation 1-301)	N	
Part 13	Handling procedures for non-hazardous materials with no or low VOC Content (Regulation 2-5-302)	N	
Part 14	Usage limits and record keeping requirements for VOC laden soil. (Offsets and Regulation 8-2-301)	Y	
Part 15	Handling procedures VOC contaminated soil (Offsets and Regulations 8-40-301, 8-40-304, and 8-40-305)	Y	
Part 16	Control requirements for collected landfill gas (Regulations 8-34-301.1 and 8-34-301.3 and 40 CFR 60.752(b)(2)(iii))	Y	
Part 17	Landfill gas collection system description (Regulations 2-1-301, 8-34-301.1, 8-34-304, 8-34-305, and 2-6-413)	Y	
Part 18	Permit requirements if landfill gas concentrations exceed listed levels (Cumulative Increase, Offsets, RACT, AB-2588 Air Toxics Hot Spots Act, and Regulations 2-5-302.3, 9-1-302, and 9-2-301)	Y	
Part 19	Allowable fuels for flares (RACT and Regulation 2-2-112)	Y	
Part 20	Landfill gas throughput limits and gas flow meter requirement for flares (Cumulative Increase and 40 CFR 60.756(b)(2)(i))	Y	
Part 21	[deleted]	~~Y~~	

IV. Source Specific Applicable Requirements

Table IV – B
Source-Specific Applicable Requirements
S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS, EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE;
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS;
S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
Part 22	Combustion zone temperature limits and monitoring requirements for flares (Regulations 2-5-302, 8-34-301.1 and 8-34-501.3, and 40 CFR 60.756(b)(1))	Y	
Part 23	NMOC limit for flares (Cumulative Increase, Regulation 8-34-301.3, and 40 CFR 60.752(b)(2)(iii)(B))	Y	
Part 24	[deleted]		
Part 25	NOx emission limit for flares (RACT and Offsets)	Y	
Part 26	CO emission limits for flares (RACT and Cumulative Increase)	Y	
Part 27	[deleted]		
Part 28	[deleted]		
Part 29	Record keeping and reporting requirements for flares (Regulations 2-6-501, 8-34-501, and 40 CFR 60.758)	Y	
Part 30	Annual source test requirements (Cumulative Increase, RACT, Offsets, Regulations 2-5-501, 8-34-301.3 and 8-34-412, and 40 CFR 60.8 and 60.752(b)(2)(iii)(B))	Y	
Part 31	Annual landfill gas characterization test requirements (AB-2588 Air Toxic Hot Spots Act and Regulations 2-5-302, 8-34-412, 9-1-302, and 9-2-301)	Y	
Part 32	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 33	Hydrogen Sulfide Monitoring Plan (Regulation 9-2-301)	N	

IV. Source Specific Applicable Requirements

Table IV – C
Source-Specific Applicable Requirements
S-34 COMPOST FACILITY OPERATIONS; S-39 TROMMEL SCREENING PROCESSES;
AND A-18 WATER SPRAYS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6, Rule 1	**Particulate Matter – General Requirements (12/5/07)**		
6-1-301	Ringelmann No. 1 Limitation	N	
6-1-305	Visible Particles	N	
6-1-311	General Operations: Emission Limit Based on Process Weight Rate	N	
6-1-401	Appearance of Emissions	N	
SIP Regulation 6	**Particulate Matter and Visible Emissions (9/4/98)**		
6-301	Ringelmann No. 1 Limitation	Y	
6-305	Visible Particles	Y	
6-311	General Operations: Emission Limit Based on Process Weight Rate	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Regulation 8, Rule 2	**Organic Compounds – Miscellaneous Operations (7/20/05)**		
8-2-301	Miscellaneous Operations	Y	
BAAQMD Regulation 9, Rule 2	**Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/99)**		
9-2-301	Limitations on Hydrogen Sulfide	N	
BAAQMD Condition # 13123			
Part 1	Throughput Limits (Cumulative Increase)	Y	
Part 2	Record Keeping Requirements (Cumulative Increase)	Y	
Part 3	Watering Requirements for Material Handling Operations (Regulations 1-301 and 6-1-305)	Y	
Part 4	Maintenance Requirements for Roadways (Regulations 1-301 and 6-1-305)	Y	
Part 5	Particulate Emission Limits and Monitoring Requirements (Regulations 1-301, 6-1-301, and 6-1-305)	Y	
Part 6	Odor Control Requirements (Regulation 1-301)	N	
Part 7	Stockpile Storage Time Limitations (Regulation 1-301)	N	
Part 8	Public Nuisance Violation Consequences (Regulation 1-301)	N	

IV. Source Specific Applicable Requirements

Table IV – D
Source-Specific Applicable Requirements
S-41 TEMPORARY STOCKPILES FOR YARD AND GREEN WASTE SHREDDING OPERATIONS; AND A-18 WATER SPRAYS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6, Rule 1	**Particulate Matter – General Requirements (12/5/07)**		
6-1-301	Ringelmann No. 1 Limitation	N	
6-1-305	Visible Particles	N	
6-1-311	Process Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
SIP Regulation 6	**Particulate Matter and Visible Emissions (9/4/98)**		
6-301	Ringelmann No. 1 Limitation	Y	
6-305	Visible Particles	Y	
6-311	Process Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Condition # 19865			
Part 1	Waste Material Throughput Limits (Cumulative Increase)	Y	
Part 2	Record Keeping Requirements (Cumulative Increase)	Y	
Part 3	Particulate Emission Limit and Abatement Requirement for Material Handling Operations (Regulations 6-1-301 and 6-1-305)	Y	
Part 4	Monitoring Requirements for Material Handling Operations (Regulations 2-1-403, 6-1-301, and 6-1-305)	Y	

IV. Source Specific Applicable Requirements

Table IV – E
Source-Specific Applicable Requirements
S-42 SOIL AND COVER MATERIAL STOCKPILES; AND A-18 WATER SPRAYS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6, Rule 1	**Particulate Matter – General Requirements (12/5/07)**		
6-1-301	Ringelmann No. 1 Limitation	Y	
6-1-305	Visible Particles	Y	
6-1-401	Appearance of Emissions	Y	
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 Regulation 8, Rule 2	**Organic Compounds – Miscellaneous Operation (7/20/05)**		
8-2-301	Miscellaneous Operations	Y	
BAAQMD Condition # 19866			
Part 1	Throughput Limits (Cumulative Increase)	Y	
Part 2	Record Keeping Requirements (Cumulative Increase)	Y	
Part 3	Particulate Emission Limits and Abatement Requirements for Material Handling Operations (Regulations 6-1-301 and 6-1-305)	Y	
Part 4	Monitoring Requirements for Material Handling Operations (Regulations 2-1-403, 6-1-301, and 6-1-305)	Y	

IV. Source Specific Applicable Requirements

Table IV – F
Source-Specific Applicable Requirements
S-49 DIESEL ENGINE FOR EMERGENCY BACK-UP GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6, Rule 1	**Particulate Matter – General Requirements (12/5/07)**		
6-1-303	Ringelmann No. 2 Limitation	N	
6-1-303.1	Internal combustion engines below 1500 cubic inches displacement or standby engines	N	
6-1-305	Visible Particles	N	
6-1-310	Particulate Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
SIP Regulation 6	**Particulate Matter and Visible Emissions (9/4/98)**		
6-303	Ringelmann No. 2 Limitation	Y	
6-303.1	Internal combustion engines below 1500 cubic inches displacement or standby engines	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Regulation 8, Rule 1	**Organic Compounds – General Provisions (6/15/94)**		
8-1-110.2	Exemptions – internal combustion engine	Y	
BAAQMD Regulation 9, Rule 1	**Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)**		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-304	Liquid and Solid Fuels	Y	
BAAQMD Regulation 9 Rule 8	**Inorganic Gaseous Pollutants – Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines (7/25/07)**		
9-8-110	Exemptions	N	
9-8-110.1	For <250 hp Engines	N	Expires 1/1/12
9-8-110.3	For Liquid Fuel Fired Engines	N	Expires 1/1/12

IV. Source Specific Applicable Requirements

Table IV – F
Source-Specific Applicable Requirements
S-49 DIESEL ENGINE FOR EMERGENCY BACK-UP GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
9-8-110.5	For Emergency Standby Engines	N	
9-8-330	Emergency Standby Engines, Hours of Operation	N	
9-8-330.1	For Emergency Use	N	
9-8-330.2	For Reliability-Related Activities	N	Expires 1/1/12
9-8-330.3	For Reliability-Related Activities	N	1/1/12
9-8-502	Recordkeeping	N	
9-8-502.1	For Exempt Engines	N	
9-8-530	Emergency Standby Engines, Monitoring and Recordkeeping	N	
9-8-530.1	Hours of Operation (total)	N	
9-8-530.2	Hours of Operation (emergency)	N	
9-8-530.3	Nature of Each Emergency Condition	N	
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	
63.8	Monitoring requirements	Y	
63.10	Record keeping and reporting requirements	Y	
63.10(b)	General record keeping requirements	Y	
63.10(c)	Additional record keeping requirements for sources with continuous monitoring systems	Y	
63.10(d)	General reporting requirements	Y	
63.10(e)	Additional reporting requirements for sources with continuous monitoring systems	Y	
40 CFR Part 63 Subpart ZZZZ	**National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (3/10/2010)**		
63.6585	Am I subject to this part?	Y	
63.6585(a)	Applicable to stationary RICE	Y	
63.6585(c)	Applicable to area source of HAPs	Y	

IV. Source Specific Applicable Requirements

Table IV – F
Source-Specific Applicable Requirements
S-49 DIESEL ENGINE FOR EMERGENCY BACK-UP GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
63.6590	What parts of my plant does this subpart cover?	Y	
63.6590(a)	Affected source	Y	
63.6590(a)(1)(iii)	Threshold Date for Existing stationary RICE	Y	
63.6595	When do I have to comply with this subpart?	Y	
63.6595(a)	Compliance Date for affected sources	Y	5/3/13
63.6603	What emission limitations and operating limitations must I meet if I own or operate and existing stationary RICE located at an area source of HAP emissions?	Y	
63.6603(a)	Operating limitations for existing stationary RICE located at an area source of HAP emissions	Y	5/3/13
63.6625	What are my monitoring, installation, collection, operation, and maintenance requirements?	Y	
63.6625(h)	Minimize engine idle time, not to exceed 30 minutes	Y	5/3/13
63.6640	How do I demonstrate continuous compliance with the emission limitations and operating limitations?	Y	
63.6640(f)	Requirements for emergency stationary RICE	Y	5/3/13
63.6640(f)(1)(i)	No time limit on use during emergency situations	Y	5/3/13
63.6640(f)(1)(ii)	Maintenance checks and readiness testing annual hour limit	Y	5/3/13
63.6640(f)(1)(iii)	Non-emergency operation annual hour limit	Y	5/3/13
63.6645	What notifications must I submit and when?	Y	
63.6645(a)(5)	Notification requirements do not apply to this source	Y	
63.6655	What Records must I keep?	Y	5/3/13
63.6655(e)(2)	Maintenance	Y	5/3/13
63.6655(f)(2)	Hours of operation	Y	5/3/13
63.6660	In what form and how long must I keep records?	Y	5/3/13
Table 2d to Subpart ZZZZ	Requirements for existing Stationary RICE Located at Area Sources of HAP Emissions	Y	5/3/13
Table 2d 4.a.	Schedule for oil and filter change	Y	5/3/13
Table 2d 4.b.	Schedule for air cleaner inspection	Y	5/3/13
Table 2d 4.c.	Schedule for hose and belt inspection	Y	5/3/13

IV. Source Specific Applicable Requirements

Table IV – F
Source-Specific Applicable Requirements
S-49 DIESEL ENGINE FOR EMERGENCY BACK-UP GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
Table 6 to Subpart ZZZZ	Continuous Compliance with Emission Limitations, Operating Limitations, Work Practices, and Management Practices	Y	5/3/13
Table 6 9.a.	Work or Management Practices	Y	5/3/13
CCR, Title 17, Section 93115	**Airborne Toxic Control Measure for Stationary Compression Ignition Engines (5/19/11)**		
§93115.5	Fuel and Fuel Additive Requirements for New and In-Use Stationary CI Engines That Have a Rated Brake Horsepower of Greater Than (>50 bhp)	N	
§93115.5(b)	For In-Use Emergency Standby CI Engines	N	
§93115.6	Emergency Standby Diesel-Fueled CI Engine (>50 bhp) Operating Requirements and Emission Standards	N	
§93115.6(b)	For In-Use Emergency Standby Diesel Fueled CI Engines	N	
§93115.6(b)(3)	Emission Standards and Operating Requirements	N	
§93115.6(b)(3)(A)	Diesel PM Standards and Hours of Operation Limitations	N	
§93115.6(b)(3)(A)(1)	General Requirements	N	
§93115.6(b)(3)(A)(1)(a)	For Engines That Emit Diesel PM Greater Than or Equal to 0.40 g/bhp-hr: Operating Hour Limit for Reliability Related Activities (Note that HC, NOx, NMHC+NOx, and CO are not limited for this engine)	N	
§93115.10	Recordkeeping, Reporting and Monitoring Requirements	N	
§93115.10(d)	Monitoring Equipment	N	
§93115.10(d)(1)	Non-Resettable Hour Meter	N	
§93115.10(f)	Reporting Requirements for Emergency Standby-Engines	N	
§93115.10(f)(1)	Records and Monthly Summary	N	
§93115.10(f)(2)	Records Retention and Availability	N	

IV. Source Specific Applicable Requirements

Table IV – F
Source-Specific Applicable Requirements
S-49 DIESEL ENGINE FOR EMERGENCY BACK-UP GENERATOR

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Condition # 22820			
Part 1	Operating Time Limitation (CCR, Title 17, Section 93115.6(b)(3)(A)(1)(a))	N	
Part 2	Other Operational Limitations (CCR, Title 17, Section 93115.6(b)(3)(A)(1)(a))	N	
Part 3	Meter Requirements (CCR, Title 17, Section 93115.10(d)(1))	N	
Part 4	Record Keeping Requirements (CCR, Title 17, Section 93115.10(f) or Regulation 2-6-501)	N	
Part 5	At School and Near School Operating Limitations (CCR, Title 17, Section 93115.6(b)(2))	N	

IV. Source Specific Applicable Requirements

Table IV – G
Source-Specific Applicable Requirements
S-55 NON-RETAIL GASOLINE DISPENSING FACILITY # 8573

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 8, Rule 5	**Organic Compounds – Storage of Organic Liquids (10/18/06)**		
8-5-116	Exemption, Gasoline Storage Tanks at Gasoline Dispensing Facilities	N	
SIP Regulation 8, Rule 5	**Organic Compounds – Storage of Organic Liquids (6/5/03)**		
8-5-206	Gas Tight	Y	
8-5-301	Storage Tank Control Requirements	Y	
8-5-303	Requirements for Pressure Vacuum Valves	Y	
8-5-303.1	Pressure Setting	Y	
8-5-303.2	Gas Tight	Y	
8-5-403	Inspection Requirements for Pressure Vacuum Valves	Y	
8-5-501	Records	Y	
8-5-501.1	Types and amounts of materials stored	Y	
8-5-503	Portable Hydrocarbon Detector	Y	
BAAQMD Regulation 8, Rule 7	**Organic Compounds – Gasoline Dispensing Facilities (11/6/02)**		
8-7-113	Tank Gauging and Inspection Exemption	Y	
8-7-114	Stationary Tank Testing Exemption	Y	
8-7-116	Periodic Testing Requirements Exemption	Y	
8-7-301	Phase I Requirements	Y	
8-7-301.1	Requirements for Transfers into Stationary Tanks, Cargo Tanks, and Mobile Refuelers	Y	
8-7-301.2	CARB Certification Requirements	Y	
8-7-301.3	Submerged Fill Pipe Requirement	Y	
8-7-301.5	Maintenance and Operating Requirement	Y	
8-7-301.6	Leak-Free and Vapor Tight Requirement for Components	Y	
8-7-301.7	Fitting Requirements for Vapor Return Line	Y	
8-7-301.12	Spill Box Drain Valve Limitation	Y	
8-7-301.13	Annual Vapor Tightness Test Requirement	Y	
8-7-302	Phase II Requirements	Y	
8-7-302.1	Requirements for Transfers into Motor Vehicle Fuel Tanks	Y	

IV. Source Specific Applicable Requirements

Table IV – G
Source-Specific Applicable Requirements
S-55 NON-RETAIL GASOLINE DISPENSING FACILITY # 8573

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
8-7-302.2	Maintenance Requirement	Y	
8-7-302.3	Proper Operation and Free of Defects Requirements	Y	
8-7-302.4	Repair Time Limit for Defective Components	Y	
8-7-302.5	Leak-Free and Vapor Tight Requirement for Components	Y	
8-7-302.6	Requirements for Bellows Nozzles	Y	
8-7-302.7	Requirements for Vapor Recovery Nozzles on Balance Systems	Y	
8-7-302.8	Minimum Liquid Removal Rate	Y	
8-7-302.9	Coaxial Hose Requirement	Y	
8-7-302.10	Construction Materials Specifications	Y	
8-7-302.12	Liquid Retain Limitation	Y	
8-7-302.13	Nozzle Spitting Limitation	Y	
8-7-302.14	Annual Back Pressure Test Requirements for Balance Systems	Y	
8-7-303	Topping Off	Y	
8-7-304	Certification Requirements	Y	
8-7-306	Prohibition of Use	Y	
8-7-307	Posting of Operating Instructions	Y	
8-7-308	Operating Practices	Y	
8-7-309	Contingent Vapor Recovery Requirement	Y	
8-7-313	Requirements for New or Modified Phase II Installations	Y	
8-7-316	Pressure Vacuum Valve Requirements, Aboveground Storage Tanks and Vaulted Below Grade Storage Tanks	Y	
8-7-401	Equipment Installation and Modification	Y	
8-7-406	Testing Requirements, New and Modified Installations	Y	
8-7-407	Periodic Testing Requirements	Y	
8-7-408	Periodic Testing Notification and Submission Requirements	Y	
8-7-501	Burden of Proof	Y	
8-7-502	Right of Access	Y	
8-7-503	Record Keeping Requirements	Y	
8-7-503.1	Gasoline Throughput Records	Y	
8-7-503.2	Maintenance Records	Y	
8-7-503.3	Records Retention Time	Y	
BAAQMD Condition # 14098	**Gasoline Throughput Limit (Regulation 2-5-302)**	**N**	

IV. Source Specific Applicable Requirements

Table IV – G
Source-Specific Applicable Requirements
S-55 NON-RETAIL GASOLINE DISPENSING FACILITY # 8573

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Condition # 16516	**Annual Leak Test (Regulation 8-7-407)**	**Y**	
CARB Executive Order G-70-17-AD	**Modification of Certification of the Emco Wheaton Balance Phase II Vapor Recovery System (5/6/93)**		
Paragraph 9	Piping and Component Configurations	N	
Paragraph 10	Nozzle Type Requirements for New Installations	N	
Paragraph 11	Dispensing Rate Limit	N	
Paragraph 12	Restrictions on Use of Nozzle Extenders	N	
Paragraph 13	Requirement to Comply with Other Agencies' Rules and Regulations	N	
Paragraph 14	Nozzle Performance Shall Conform to Certification	N	
Paragraph 15	Prohibition on Alteration of Equipment, Parts, Design, or Operation	N	
Paragraph 16	Operating and Maintenance Requirements	N	
CARB Executive Order G-70-160	**Certification of Above Ground Tank Vault, Aboveground Tank Filling/Dispensing Vapor Recovery System (11/9/94)**		
Paragraph 9	Tank Design Configuration Limitations	N	
Paragraph 10	Emergency Vent Leak Limit	N	
Paragraph 11	Requirement to Use ARB Certified Phase I and Phase II Systems	N	
Paragraph 12	Phase I Piping Configuration Requirements and Disconnection Leak Limit	N	
Paragraph 13	Coaxial Hose Routing Requirements for Liquid Trap Limitations	N	
Paragraph 14	P/V Valve Requirements	N	
Paragraph 15	Tank Insulation Requirements	N	
Paragraph 16	Tank Exterior Surface Requirements	N	
Paragraph 17	Requirement to Comply with Local Air District Rules	N	
Paragraph 18	Requirements for Deliveries from a Cargo Truck	N	
Paragraph 19	Leak Checking Requirements	N	
Paragraph 20	Requirement to Comply with Local Fire Official's Requirements	N	
Paragraph 21	Requirement to Comply with Other Agencies' Rules and Regulations	N	
Paragraph 22	Prohibition on Alteration of Equipment, Parts, Design, or Operation	N	

IV. Source Specific Applicable Requirements

Table IV – H
Source-Specific Applicable Requirements
S-56 PORTABLE HORIZONTAL GRINDER

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6, Rule 1	**Particulate Matter – General Requirements (12/5/07)**		
6-1-301	Ringelmann No. 1 Limitation	N	
6-1-305	Visible Particles	N	
6-1-311	Process Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
SIP Regulation 6	**Particulate Matter and Visible Emissions (9/4/98)**		
6-301	Ringelmann No. 1 Limitation	Y	
6-305	Visible Particles	Y	
6-311	Process Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Condition # 22940			
Part 1	Incorporation of Conditions for CARB Portable Equipment Registration Permit # 117378 (CARB PERP)	N	
CARB	**Registration Permit # 117378**		
Part 1	Locations Where the Registration Permit is not Valid	N	
Part 2	General Operating and Maintenance Requirements for Grinder	N	
Part 3	Registration Permit Identification	N	
Part 4	US EPA Notification Requirements	N	
Part 5	Residence Time Limitation for This Equipment and Any Replacement Units	N	
Part 6	Limitations on the Validity of the Registration Permit	N	
Part 7	Public Nuisance Restriction	N	
Part 8	Permit Applicability Restrictions	N	
Part 9	Change of Ownership Requirements	N	
Part 10	District Authorization Requirement for Non-Valid Locations	N	
Part 11	Prohibited Materials	N	
Part 12	Visible Emission Limitation	N	
Part 13	Ringelmann 1 and Opacity Limitations	N	

IV. Source Specific Applicable Requirements

Table IV – H
Source-Specific Applicable Requirements
S-56 PORTABLE HORIZONTAL GRINDER

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
Part 14	Daily PM10 Emission Limit	N	
Part 15	Watering Requirements	N	
Part 16	Annual PM10 Emission Limit	N	
Part 17	Daily Throughput Limitations and Records	N	
Part 18	Annual Throughput Limitation	N	
Part 19	Road Paving and Watering Requirements	N	
Part 20	Wood Waste Watering Requirements	N	
Part 21	General Operating and Maintenance Requirements for Water Sprays	N	
Part 22	Daily Records Requirements	N	
Part 23	Records Availability and Retention	N	
Part 24	District Notification Requirements	N	
Part 25	Exemption from District Notification Requirements	N	
Part 26	Notification Requirements for Equipment Replacements	N	

IV. Source Specific Applicable Requirements

Table IV – I
Source-Specific Applicable Requirements
S-58 AERATED LEACHATE POND

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 8, Rule 8	**Organic Compounds – Wastewater Collection and Separation Systems (9/15/04)**		
8-8-113	Exemption, Secondary Wastewater Treatment Processes and Stormwater Sewer Systems	Y	
BAAQMD Condition # 23052			
Part 1	Throughput Limit for Leachate Influent (POC Offsets and NSR for TAC)	Y	
Part 2	POC Concentration Limit for Leachate Influent (POC Offsets)	Y	
Part 3	TAC Concentration Limits for Leachate Influent (NSR for TAC)	N	
Part 4	Analytical Testing Requirements for Leachate Influent (POC Offsets and NSR for TAC)	Y	
Part 5	Record Keeping Requirements (POC Offsets and NSR for TAC)	Y	

IV. Source Specific Applicable Requirements

Table IV – J
Source-Specific Applicable Requirements
S-63 DRY WASTE MATERIALS RECOVERY FACILITY; AND A-63 WATER SPRAYS

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6, Rule 1	**Particulate Matter – General Requirements (12/5/07)**		**Upon Start-up of S-63**
6-1-301	Ringelmann No. 1 Limitation	N	
6-1-305	Visible Particles	N	
6-1-311	Process Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
SIP Regulation 6	**Particulate Matter and Visible Emissions (9/4/98)**		**Upon Start-up of S-63**
6-301	Ringelmann No. 1 Limitation	Y	
6-305	Visible Particles	Y	
6-311	Process Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Condition # 25260			**Upon Start-up of S-63**
Part 1	Waste Material Throughput Limits (Cumulative Increase)	Y	
Part 2	Limits for Waste Materials Containing Specified TACs (Regulation 2-5-110)	N	
Part 3	Abatement Requirements for Transfer Points and Material Handling Operations (Cumulative Increase and Regulations 6-1-301 and 6-1-305)	Y	
Part 4	Best Management Practices Requirements (Regulations 1-301, 6-1-301, and 6-1-305)	Y	
Part 5	Visible Particulate Emissions Limits and Monitoring Requirements (Regulations 1-301, 6-1-301 and 6-1-305)	Y	
Part 6	Record Keeping Requirements (Cumulative Increase and Regulation 2-5-110)	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 # 96
FOR: S-2 SEWAGE SLUDGE STORAGE, MAIN POND

*1. If any odor complaints are verified and found to have emanated from this pond, the pond shall be immediately chemically treated to abate the problem. (Basis: Regulation 1-301)

Condition # 13123
FOR: S-34 COMPOST FACILITY OPERATIONS; S-39 TROMMEL SCREENING PROCESSES; AND A-18 WATER SPRAYS

1. The total amount of material produced by the S-34 Compost Facility Operations shall not exceed 50,000 tons during any consecutive 12-month period, and the total amount of material processed by the S-39 Trommel Screens shall not exceed 50,000 tons during any consecutive 12-month period. (Basis: Cumulative Increase)

2. In order to demonstrate compliance with Part 1, the Permit Holder shall keep a dated record of the material throughput in a District approved logbook. Material throughput shall be totaled on a monthly basis, and shall be made available to the District staff for inspection. (Basis: Cumulative Increase)

3. The material handling operations associated with S-34 and S-39 - such as loading, unloading, stockpiling, mixing, turning, and screening - shall be abated by water sprays (A-18), as necessary to comply with Part 5. Dry, dusty material shall be wetted down before unloading from truck beds, as necessary to comply with Part 5. (Basis: Regulations 1-301 and 6-1-305)

4. All roadways associated with this facility shall be maintained in a clean or wetted condition, as necessary to comply with Part 5. (Basis: Regulations 1-301 and 6-1-305)

5. Visible dust emissions from any operation of this facility shall not exceed Ringelmann 1.0 or result in fallout on adjacent property in such quantities as to cause a public nuisance per Regulation 1-301. To ensure compliance with this part, the Permit Holder shall visually observe all material handling operations and roadways associated with these sources and shall immediately initiate corrective actions, if any visible dust emissions are detected that persist for longer than 3 minutes in an hour. (Basis: Regulations 1-301, 6-1-301 and 6-1-305)

VI. Permit Conditions

Condition # 13123
FOR: S-34 COMPOST FACILITY OPERATIONS; S-39 TROMMEL SCREENING PROCESSES; AND A-18 WATER SPRAYS

*6. All measures - including but not limited to proper housekeeping and management practices, contained and dry storage piles, and dust minimization - shall be implemented, as necessary to control odors from these sources. (Basis: Regulation 1-301)

*7. During normal operations, the yard waste material shall be processed within 72 hours of receipt so that it does not decompose in the storage piles and generate odor on-site. In the event of an equipment breakdown or other unforeseeable circumstance that would prevent the processing of yard waste within 72 hours, yard waste may be stored for no more than 7 days. If any stockpile that has been stored for longer than 72 hours is deemed to be odorous by a District inspector, then the allowable stockpile storage time shall be reduced from 7 days back to 72 hours. Any stockpile that is deemed to be odorous by a District inspector shall be removed within 24 hours. (Basis: Regulation 1-301)

*8. If the plant receives two or more Violation Notices from the District for "Public Nuisance" in any consecutive 12 month period, the Permit Holder for these sources shall implement the following control measures, as applicable, or any other measures that the District deems necessary and appropriate within the time period specified by the District. If requested by the District, the Permit Holder shall submit to the District an application to modify the Permit to Operate and/or these permit conditions within 30 days of notification. (Basis: Regulation 1-301)

a. Enclose nuisance operations in a warehouse-like building.
b. Pave roadways associated with the nuisance operation.
c. Use chemical suppressants to control fugitive dust emissions from roadways associated with the nuisance operation.
d. Apply odor inhibitor solutions to odorous operations.
e. Install an odor abatement system.
f. Reduce the stockpile time allowed by Part 7.
g. Reduce the throughput rates allowed by Part 1.
h. Discontinue odorous co-composting operations (no use of sewage sludge) during the ozone season or other appropriate time period.

VI. Permit Conditions

Condition # 14098
FOR: S-55 NON-RETAIL GASOLINE DISPENSING FACILITY # 8573

Pursuant to BAAQMD Toxic Section Policy, this facility's annual gasoline throughput shall not exceed 940,000 gallons in any consecutive 12-month period. (Basis: Regulation 2-5-302)

Condition # 16516
FOR: S-55 NON-RETAIL GASOLINE DISPENSING FACILITY # 8573

For each aboveground gasoline storage tank, the Static Pressure Performance Test (Leak Test) ST-38 shall be successfully conducted at least once in each twelve consecutive month period after the date of successful completion of the startup Static Pressure Performance Test.

The applicant shall notify Source Test by email at gdfnotice@baaqmd.gov or by FAX at (510) 758-3087, at least 48 hours prior to any testing required for permitting. Test results for all performance tests shall be submitted within thirty (30) days of testing. Start-up test results submitted to the District must include the application number and the GDF number. (For annual test results submitted to the District, enter "Annual" in lieu of the application number.) Test results may be submitted by email (gdfresults@baaqmd.gov), FAX (510) 758-3087, or mail (BAAQMD Source Test Section, Attention Hiroshi Doi, 939 Ellis Street, San Francisco CA 94109). (Basis: Regulation 8-7-407)

VI. Permit Conditions

Condition # 19865

FOR: S-41 TEMPORARY STOCKPILES FOR YARD AND GREEN WASTE SHREDDING OPERATIONS; AND A-18 WATER SPRAYS

1. The total amount of waste material processed at the S-41 Temporary Stockpiles for Yard and Green Waste Shredding Operations shall not exceed 820 tons per day and shall not exceed 200,000 tons per year. (Basis: Cumulative Increase)

2. In order to demonstrate compliance with Part 1, the Permit Holder shall maintain daily records, summarized on a monthly and annual basis, of the total amount of waste material processed at S-41. All records shall be maintained in an APCO approved log book, retained on site for a minimum of five years from the date of entry, and made available to District staff upon request. (Basis: Cumulative Increase)

3. Particulate emissions from the waste material unloading operations, waste material stockpiles, and shredded material stockpiles shall be abated by water sprays from water trucks (A-18) as necessary to prevent visible emissions and to prevent exceedance of the Regulation 6-1-301 Ringelmann 1.0 limit. (Basis: Regulations 6-1-301 and 6-1-305)

4. In order to demonstrate compliance with Part 3 and Regulations 6-1-301 and 6-1-305, the Permit Holder shall observe all material loading or unloading operations. If visible emissions are detected that persist for longer than 3 minutes in an hour, the operator of this source shall take the necessary corrective action to stop the emissions. (Basis: Regulations 2-1-403, 6-1-301, and 6-1-305)

VI. Permit Conditions

Condition # 19866
FOR: S-42 SOIL AND COVER MATERIAL STOCKPILES; AND A-18 WATER SPRAYS

1. The total amount material received at the S-42 Soil and Cover Material Stockpiles shall not exceed 1160 tons per day and shall not exceed 105,500 tons per year. (Basis: Cumulative Increase)

2. In order to demonstrate compliance with Part 1, the Permit Holder shall maintain daily records, summarized on a monthly and annual basis, of the total amount of material received at S-42. All records shall be maintained in an APCO approved log book, retained on site for a minimum of five years from the date of entry, and made available to District staff upon request. (Basis: Cumulative Increase)

3. Particulate emissions from the stockpiles and the material loading and unloading operations shall be abated by water sprays (A-18), as necessary, to prevent visible emissions and to prevent exceedance of the Regulation 6-1-301 Ringelmann 1.0 limit. (Basis: Regulations 6-1-301 and 6-1-305)

4. In order to demonstrate compliance with Part 3 and Regulations 6-1-301 and 6-1-305, the Permit Holder shall observe all material loading or unloading operations. If visible emissions are detected that persist for longer than 3 minutes in an hour, the operator of this source shall take the necessary corrective action to stop the emissions. (Basis: Regulations 2-1-403, 6-1-301, and 6-1-305)

VI. Permit Conditions

Condition # 19867

FOR: S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS; AND
S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

1. The maximum design capacity of the landfill (total volume of all wastes and cover materials placed in the landfill, excluding final cover) shall not exceed 25.0 million cubic yards, unless the Permit Holder can demonstrate that an increase of this design capacity limit will not result in any increases in the maximum permitted emission rates for the S-5 Redwood Landfill, A-51 Landfill Gas Flare, and A-60 Landfill Gas Flare, which are identified in the Engineering Evaluations for Applications #19098 and #20607. (Basis: Regulation 2-1-301)

2. The total cumulative amount of all decomposable materials placed in the landfill (total weight of all decomposable wastes and all decomposable cover materials placed in the landfill, excluding final cover) shall not exceed 541,140 tons per calendar year and shall not exceed 23.185 million tons, unless the Permit Holder can demonstrate that increases of these limits will not result in increases in waste decomposition related emissions. The maximum permitted fugitive precursor organic compound (POC) emission rate is 26.380 tons per year of POC from the S-5 Redwood Landfill. The maximum permitted residual POC emission rate is 7.716 tons per year from the flares (A-51 and A-60). Any changes in waste acceptance rates, types of waste accepted, or other practices that will result in an increase in the maximum permitted POC, NPOC, or toxic air contaminant emission rates for S-5or A-51 or A-60, which are identified in the Engineering Evaluations for Applications #19098 and #20607, shall be considered a modification of S-5, A-51, or A-60, pursuant to Regulation 2-1-234. (Basis: Regulations 2-1-301 and 2-5-302, Cumulative Increase, and Offsets)

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FOR: S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS; AND
S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

3. Total particulate emissions from Redwood Landfill and the associated waste and cover material delivery, placement, and compaction operations shall not exceed 992.5 pounds of PM10 per day and shall not exceed 154.25 tons of PM10 per year. Compliance with these emission limits shall be demonstrated by meeting the requirements of Parts 3-11. The total amount of all materials accepted at the landfill (total waste for disposal, total materials for composting, total materials for recycling, and total decomposable cover materials, but excluding non-decomposable cover and construction materials, which are also excluded from the equivalent limit in the SWFP) shall not exceed 2310 tons per day (except during temporary emergency situations approved by the Local Enforcement Agency) and shall not exceed 718,410 tons per calendar year. The total amount of sewage sludge accepted at the landfill shall not exceed 310 wet tons per day (except during temporary emergency situations approved by the Local Enforcement Agency) and shall not exceed 96,410 wet tons per calendar year. (Basis: Regulation 2-1-301)

4. The total amount of all cover materials (excluding final cover) placed in the landfill shall not exceed 1160 tons per day, with no more than 350 tons per day to consist of decomposable cover materials, and shall not exceed 360,760 tons per calendar year, with no more than 108,850 tons per calendar year from decomposable cover materials. (Basis: Regulation 2-1-301)

5. In order to demonstrate compliance with Parts 1-4 above, the Permit Holder shall maintain the following records in an APCO approved log book:
   a. Record on a daily basis the type and amount of all materials received at the landfill.

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FOR: S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS; AND
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b. For each type of material received at the landfill, clearly identify how the material will be used at this site (i.e. disposed of in the landfill directly, used as daily cover material, used as intermediate cover material, used in composting operations, sent to yard and green waste recycling operations, sent to other recycling operations, used for on-site road construction or surfacing, used for other construction purposes, sent to on-site stockpiles for later use, etc.). For material types that may be used for multiple purposes at this site, identify the amount of material used for each purpose.

c. For each type of material received at the landfill, clearly identify whether the material is decomposable or inert. Inert materials are defined by Regulation 8-34-203. For the purposes of this condition, soils containing more than 50 ppm by weight of volatile organic compounds (VOC) or "contaminated soil" as defined in Regulation 8-40-205 are decomposable materials. Soils containing 50 ppm by weight VOC or less are inert materials.

d. If cover materials are taken from on-site stockpiles, record on a daily basis the amount of material removed from the stockpiles and used as cover material (for each type of material).

e. Summarize on a monthly basis: the total amount of all wastes accepted, the total amount of sewage sludge accepted, the total amount of accepted materials that were directly used as cover material, the amount of cover materials that were removed from on-site stockpiles, the total amount of materials used for cover, the total amount of decomposable cover materials, the total amount of decomposable wastes placed in the landfill, the total amount of non-decomposable wastes disposed of in the landfill, the total amount of decomposable materials placed in the landfill, and the total amount of all materials placed in the landfill.

The Permit Holder shall begin maintaining the above records by no later than December 1, 2002. These records shall be kept at site for at least 5 years from the date the data is entered and shall be made available to the District staff for inspection. (Basis: Regulations 2-1-301, 8-34-501, and 40 CFR 60.758)

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S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS; AND
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6. The mean vehicle fleet weight for all off-site vehicles traveling on paved roads shall not exceed 15.31 tons. The mean vehicle fleet weight for all off-site vehicles traveling on gravel or dirt roads shall not exceed 16.63 tons. (Basis: Regulation 2-1-301)

7. The mean vehicle fleet weight for all on-site landfilling and construction related vehicles (bulldozers, scrapers, back hoes, compactors, road graders, loaders, dump trucks, soil trucks, water trucks, fuel trucks, or maintenance vehicles, etc.) shall not exceed 28.37 tons. (Basis: Regulation 2-1-301)

8. The total vehicle miles traveled (VMT) by the off-site vehicle fleet shall not exceed the following limits:
   a. 280 VMT per day on gravel roads
   b. 639 VMT per day on dirt roads
   c. 662 VMT per day on paved roads
   d. 87,080 VMT per calendar year on gravel roads
   e. 198,650 VMT per calendar year on dirt roads
   f. 205,880 VMT per calendar year on paved roads

   (Basis: Regulation 2-1-301)

9. The total vehicle miles traveled (VMT) by the on-site vehicle fleet shall not exceed the following limits:
   a. 61 VMT per day (all travel is assumed to occur on dirt roads)
   b. 19,080 VMT per calendar year (all travel is assumed to occur on dirt roads)

   (Basis: Regulation 2-1-301)

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FOR: S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS; AND
S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

10. In order to demonstrate compliance with Parts 6-9, the Permit Holder shall maintain the following records in an APCO approved log book:
    a. For each type of vehicle fleet (off-site vehicles and on-site construction equipment) maintain a list of all the types of vehicles in the fleet. For each vehicle type, record the empty vehicle weight, maximum load weight, and average vehicle weight (average of full and empty weights). This list shall be reviewed annually and updated whenever necessary to ensure that the list accurately reflects the types of vehicles that may be present at the landfill during any calendar year.
    b. For the off-site vehicle fleet, record on a daily basis and summarize on a monthly basis: the number of vehicle trips (round trips to/from the landfill) for each type of vehicle in the fleet.
    c. For the on-site vehicle fleet, record on a daily basis and summarize on a monthly basis: the number of vehicle trips for each type of vehicle in the fleet. For construction vehicles like bulldozers or compactors that have no set travel route but instead make many small trips across the active face, the number of vehicle trips can be estimated from operating times and procedures or odometer readings and the maximum round trip travel distance (see subpart f. below). If no data is available for estimating vehicle trips, the vehicle trips shall be recorded as 1 vehicle trip per day per vehicle used during that day.

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FOR: S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS; AND
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d. At least once per calendar year, the Permit Holder shall calculate and record the mean vehicle fleet weight for each type of vehicle fleet. For each vehicle fleet, the mean vehicle fleet weight shall be calculated using the vehicle trip data for: (i) the day with the highest number of vehicle trips during the previous calendar year; and (ii) the day with the highest total amount of waste accepted during the previous calendar year. Mean vehicle fleet weights shall also be recalculated whenever new vehicle types are added to a vehicle fleet. The mean vehicle fleet weight (MVFW) is a weighted average calculated by multiplying the average vehicle weight for each vehicle type (AVWi) times the number of vehicle trips per day for that vehicle type (DVTi), summing AVWi*DVTi for all vehicle types, and dividing the resulting sum by the total number of vehicle trips for that day (DVT).

e. For the off-site vehicle fleet, the Permit Holder shall determine (using odometer measurements, maps, or other appropriate means) the maximum round trip distance traveled on-site by each vehicle type in the fleet on gravel roads, dirt roads, and paved roads (VMT per round trip per vehicle type per road type). Alternatively, the Permit Holder may determine a maximum round trip distance per road type for one or more groups of vehicle types, if all vehicle types in the group travel essentially the same roads and distances. This distance shall be determined at least once per calendar year and whenever significant changes to on-site travel routes have occurred.

f. For the on-site vehicle fleet, the Permit Holder shall determine (using odometer measurements, maps, or other appropriate means) the maximum round trip distance traveled by each vehicle type in the fleet on dirt roads (VMT per round trip per vehicle type). Alternatively, the Permit Holder may determine a maximum round trip distance per road type for one or more groups of vehicle types, if all vehicle types in the group travel essentially the same roads and distances. This distance shall be determined at least once per calendar year and whenever significant changes to travel routes have occurred.

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FOR: S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS; AND
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g. For each vehicle fleet type, the Permit Holder shall calculate and record the total vehicle miles traveled (VMT) per day on each type of road (dirt, gravel, and paved for off-site vehicles and dirt only for on-site vehicles) using the data recorded pursuant to subparts b., c., d., and f. The daily VMT per road type shall be summarized for each calendar month and for each calendar year.

The Permit Holder shall begin maintaining the above records by no later than December 1, 2002. These records shall be kept at site for at least 5 years from the date the data is entered and shall be made available to the District staff for inspection. (Basis: Regulations 2-1-301, 8-34-501, and 40 CFR 60.758)

11. Particulate emissions from any operation of the landfill shall be abated by A-18 Water Sprays in such a manner that visible dust emissions shall not exceed Ringelmann 1.0 or result in fallout on adjacent property in such quantities as to cause a public nuisance per Regulation 1-301. The Permit Holder shall meet the following minimum watering requirements:
    a. On any dry operating days, water shall be applied to unpaved roads and parking areas at a rate of 0.5 gallons per square yard or more.
    b. On any dry operating days, water shall be applied to unpaved roads at a frequency of at least once every three hours of operation.
    c. On any dry operating days, water shall be applied to unpaved parking areas or infrequently traveled unpaved roads at least twice per day or at least once per every 150 vehicle trips (whichever is more frequent).
    d. On any dry operating days, water shall be applied to the active landfill face, the active area of stockpiles, composting operations, or other dust prone areas at least twice per day.
    e. On any operating day when rain fall is not sufficient to prevent visible emissions, additional water shall be applied to any road, parking area, active face, stockpile, or dusty area as frequently as necessary to prevent visible emissions that persist for longer than 3 minutes in an hour.

VI. Permit Conditions

Condition # 19867

FOR: S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS; AND
S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

In order to demonstrate compliance with this requirement, the Permit Holder shall maintain the following information in an APCO approved log book:

f. Accurate maps of the facility showing the locations of all roads and parking areas at the facility (dirt, gravel, and paved roads shall be clearly distinguished), stockpiles, and active filling areas. The current travel routes for both off-site and on-site vehicle traffic and the water spray trucks shall be clearly indicated on the maps.

g. Record the frequency of water spray applications (on gravel roads, dirt roads, stockpiles, the active face, and any other dust prone areas) for each operating day.

(Basis: Regulations 1-301, 2-1-301, and 6-1-301)

*12. If the plant receives two or more violation notices from the District for "Public Nuisance" in any consecutive 12 month period, the Permit Holder shall implement the following control measures, as applicable, or any other measures that the District deems necessary and/or appropriate, within the time period specified by the District. If requested by the District, the Permit Holder shall submit to the District a permit application to modify the Permit to Operate and/or these permit conditions, within 30 days of notification. (Basis: Regulation 1-301)

a. Pave main haul roads and parking areas associated with the nuisance operation such as roads for landfilling, composting, recycling, or sludge handling operations.

b. Add gravel or other aggregate based surfacing to dirt roads and parking areas that are associated with the nuisance operation.

c. Use chemical suppressants on unpaved roads and unpaved parking areas that are associated with the nuisance operation.

d. Increase the frequency of water application on unpaved roads, parking areas, the active face of the landfill, stockpiles, or any other dust prone areas that are associated with the nuisance operation.

e. Use frequent sweeping and/or water flushing, during the dry season, on paved areas that are associated with the nuisance operation.

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*13. The Permit Holder may use non-hazardous contaminated materials containing no more than 50 ppm by weight of Volatile Organic Compounds (VOC) as daily or interim cover material, provided that these materials are properly handled and disposed of in accordance with this part and any other applicable requirements.

a. Any metal laden materials (materials that have been contaminated with arsenic, asbestos, beryllium, cadmium, hexavalent chromium, nickel, copper, lead, mercury, selenium, or zinc) shall be properly handled at all times and shall be abated by appropriate dust mitigation measures including: the use of covers during on-site transport, the use of frequent water sprays during active handling (loading, unloading, spreading, etc.) of these materials, and the use of water sprays, covers, or chemical dust suppressants on inactive storage areas.

b. If metal laden materials are used as interim cover, the metal laden material shall be covered with a non-contaminated material such as clean soil or compacted green waste prior to subjecting the area to frequent vehicle or construction equipment traffic.

c. Metal laden materials shall not be used in the construction of unpaved roadways or parking lots.

(Basis: Regulation 2-5-302)

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14. This part applies to the acceptance, handling, storage, and on-site reuse of VOC-laden soil. VOC-laden soil is any soil that contains volatile organic compounds, as defined in Regulation 8-40-213, other than contaminated soil. As defined in Regulation 8-40-205, contaminated soil contains more than 50 ppmw of VOC or has a surface concentration greater than 50 ppmv of VOC as C1, and contaminated soil is subject to Part 15 below instead of this part. Materials containing only non-volatile hydrocarbons and materials meeting the requirements of Regulation 8-40-113 are not subject to this part. For each lot of VOC-laden soil accepted at this site, the Permit Holder shall comply with the daily limits identified in either subpart a or subpart b below and shall comply with the annual emissions limit identified in subpart c below. To demonstration compliance with the daily and annual emission limits, the Permit Holder shall comply with the monitoring procedures listed in subpart a(i-v). If the Permit Holder opts to comply with the daily concentration limit in subpart b rather than the daily emission limit in subpart a, then the Permit Holder shall also comply with the soil screening procedures listed in subpart b(i-v).
    a. Unless the Permit Holder demonstrates compliance with Regulation 8-2-301 in accordance with subpart b below, the Permit Holder shall limit the quantity of VOC laden soil handled per day such that no more than 15 pounds of total carbon could be emitted to the atmosphere per day. In order to demonstrate compliance with this subpart and the annual emissions limit specified in subpart c, the Permit Holder shall maintain the following records in a District approved log for all VOC-laden soil accepted at the landfill.
        i. Record on a daily basis the amount of VOC laden soil accepted for each truckload or each soil lot, as appropriate. This amount (in units of pounds per day) is Q in the equation in subpart a(iii) below.
        ii. Record on a daily basis the VOC content for each truckload or each soil lot, as appropriate. This VOC Content (C in the equation below) should be expressed as parts per million by weight as total carbon (or C1).

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iii. Calculate and record on a daily basis the VOC Emission Rate (E) using the following equation: E = Q * C / 1E6
This equation may be applied to each truckload or to each soil lot received per day depending on the amount of soil that is represented by the VOC Content data. If the equation is applied to multiple loads per day, the VOC Emission Rate shall be totaled for all loads received each day.

iv. Summarize all daily emission rates on a monthly and calendar year basis.

v. All records shall be maintained on site or shall be made readily available to District staff upon request for at least 5 years from the date of entry.

b. Unless the Permit Holder demonstrates compliance with Regulation 8-2-301 in accordance with subpart a above, the Permit Holder shall screen each lot of VOC laden soil accepted per day for VOC surface emissions to show that each lot of VOC laden soil is not contaminated soil.

i. The Permit Holder shall use the testing procedures outlined in Regulation 8-40-604.

ii. The screening test shall be representative of the entire lot of VOC-laden soil. The soil surface shall be disturbed prior to screening to ensure that the screening is representative of the entire load.

iii. The Permit Holder shall maintain records of all testing conducted to satisfy this subpart and shall record the amount of VOC-laden soil accepted and the highest surface concentration measured pursuant to this subpart. These records shall be maintained for each truckload or each soil lot accepted, as appropriate, provided that the records are made or summarized on at least a daily basis.

iv. Summarize the daily waste acceptance rates and the weighted average of the surface concentration records on a monthly basis and for each calendar year.

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v. All records shall be maintained on site or shall be made readily available to District staff upon request for at least 5 years from the date of entry.

c. The Permit Holder shall limit the quantity of VOC laden soil handled per year such that annual VOC emissions due to on-site handling, storage, disposal, or reuse of VOC laden soil shall not exceed 10,530 pounds per calendar year. The Permit Hold shall comply with the monitoring procedures in subpart a(i-v) above to demonstrate compliance with this annual emissions limit.

(Basis: Offsets and Regulation 8-2-301)

15. Handling Procedures for Soil Containing Volatile Organic Compounds:

a. The procedures listed below in subparts b-l do not apply if the following criteria are satisfied. However, the record keeping requirements in subpart m below are applicable.

i. The Permit Holder has appropriate documentation demonstrating that either the organic content of the soil or the organic concentration above the soil is below the "contaminated" level (as defined in Regulation 8, Rule 40, Sections 205, 207, and 211). The handling of soil containing VOCs in concentrations below the "contaminated" level is subject to Part 14 above.

ii. The Permit Holder has no documentation to prove that soil is not contaminated, but source of the soil is known and there is no reason to suspect that the soil might contain organic compounds.

b. The Permit Holder shall provide notification to the Compliance and Enforcement Division of the Permit Holder's intention to accept contaminated soil at the facility at least 24 hours in advance of receiving the contaminated soil. The Permit Holder shall provide an estimate of the amount of contaminated soil to be received, the degree of contamination (range and average VOC Content), and the type or source of contamination.

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c. Any soil received at the facility that is known or suspected to contain volatile organic compounds (VOCs) shall be handled as if the soil were contaminated, unless the Permit Holder receives test results proving that the soil is not contaminated. To prove that the soil is not contaminated, the Permit Holder shall collect soil samples in accordance with Regulation 8-40-601 within 24 hours of receipt of the soil by the facility. The organic content of the collected soil samples shall be determined in accordance with Regulation 8-40-602.
   i. If these test results indicate that the soil is still contaminated or if the soil was not sampled within 24 hours of receipt by the facility, the Permit Holder must continue to handle the soil in accordance with the procedures subparts d-l below, until the soil has completed treatment or has been placed in a final disposal location and adequately covered. Storing soil in a temporary stockpile or pit is not considered treatment. Co-mingling, blending, or mixing of soil lots is not considered treatment.
   ii. If these test results indicate that the soil - as received at the facility - has an organic content of 50 ppmw or less, then the soil may be considered to be not contaminated and need not be handled in accordance with the procedures listed in subparts d-l below, but shall be handled in accordance with Part 14 above.

d. Any contaminated soil received at the facility shall be clearly identified as contaminated soil, shall be handled in accordance with subparts e-l below, and shall be segregated from non-contaminated soil. Contaminated soil lots may not be co-mingled, blended, or otherwise mixed with non-contaminated soil lots prior to treatment, reuse, or disposal. Mixing soil lots in an attempt to reduce the overall concentration of the contaminated soil or to circumvent any requirements or limits is strictly prohibited.

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e. On-site handling of contaminated soil shall be limited to no more than 2 on-site transfers per soil lot. For instance, unloading soil from off-site transport vehicles into a temporary storage pile is considered one transfer. Moving soil from a temporary storage to a staging area is considered one transfer. Moving soil from a temporary storage pile to a final disposal site is one transfer. Moving soil from a staging area to a final disposal site is one transfer. Therefore, unloading soil from off-site transport into a temporary storage pile and then moving the soil from that temporary storage pile to the final disposal site is allowed. Unloading soil from off-site transport into a staging area and then moving the soil from that staging area to the final disposal site is allowed. However, unloading soil from off-site transport to a temporary storage pile, moving this soil to a staging area, and then moving the soil again to a final disposal site is 3 on-site transfers and is not allowed.

f. All contaminated soil shall be either treated, deposited in a final disposal site, or transported off-site for treatment, within 90 days of receipt at the facility.

g. The total amount of contaminated soil disposed of at this site shall not exceed 6240 tons during any calendar year. The Permit Holder shall apply for a change of conditions before accepting any soil containing more than 100 ppm by weight of VOC. (Basis: Offsets)

h. All active storage piles shall meet the requirements of Regulation 8-40-304 by using water sprays, vapor suppressants or approved coverings to minimize emissions. The exposed surface area of any active storage pile (including the active face at a landfill) shall be limited to 6000 ft^2. The types of storage piles that may become subject to these provisions include (but are not limited to) truck unloading areas, staging areas, temporary stockpiles, soil on conveyors, bulldozers or trucks, the active face of a landfill, or other permanent storage pile at the final disposal location.

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i. All inactive storage piles shall meet the requirements of Regulation 8-40-305 including the requirement to cover contaminated soil during periods of inactivity longer than one hour. The types of storage piles that may become subject to these provisions include (but are not limited to) soil on trucks or other on-site equipment, staging areas, temporary stockpiles, and the permanent storage pile at the final disposal location. District approved coverings for inactive storage piles include continuous heavy-duty plastic sheeting (in good condition, joined at the seams, and securely anchored) or encapsulating vapor suppressants (with re-treatment as necessary to prevent emissions).

j. The Permit Holder must:
   i. Keep contaminated soil covered with continuous heavy-duty plastic sheeting (in good condition, joined at the seams, and securely anchored) whenever soil is to be stored in temporary stockpiles or during on-site transport in trucks. Soil in trucks shall not be left uncovered for more than 1 hour.
   ii. Establish a tipping area for contaminated soils near the active face that is isolated from the tipping area for other wastes.
   iii. Spray contaminated soil with water or vapor suppressant immediately after dumping the soil from a truck at the tipping area.
   iv. Ensure that all contaminated soil is transferred from the tipping area to the active face immediately after spraying with water or vapor suppressant.
   v. Ensure that contaminated soil in the tipping area is not disturbed by subsequent trucks. Trucks shall not drive over contaminated soil in the tipping area or track contaminated soil out of the tipping area on their wheels.
   vi. Spray contaminated soil on the active face with water or vapor suppressant (to keep the soil visibly moist) until the soil can be covered with an approved covering.
   vii. Limit the area of exposed soil on the active face to no more than 6000 ft^2.

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viii. Ensure that contaminated soil spread on the active face is completely covered on all sides with one of the following approved coverings: at least 6 inches of clean compacted soil, at least 12 inches of compacted garbage, or at least 12 inches of compacted green waste.

ix. Ensure that covering of soil on the active face is completed within one hour of the time that the soil was first dumped from a truck at the tipping area.

k. Contaminated soil shall not be used as daily, intermediate, or final cover material for landfill waste operations unless the requirements of Regulation 8, Rule 40, Sections 116 or 117 have been satisfied.

l. Contaminated soil is considered to be a decomposable solid waste pursuant to Regulation 8, Rule 34. All contaminated soil disposed of at a site shall be included in any calculations of the amount of decomposable waste in place for annual reporting requirements or for purposes of Regulation 8-34-111 or 8-34-304.

m. The Permit Holder shall keep the following records for each lot of soil received, in order to demonstrate on-going compliance with the applicable provisions of Regulation 8, Rule 40 and this part.

i. For all soil received by the facility (including soil with no known contamination), record the arrival date at the facility, the soil lot number, the amount of soil in the lot, the organic content or organic concentration of the lot (if known), the type of contamination (if any), and keep copies of any test data or other information that documents whether the soil is contaminated (as defined in 8-40-205) or not contaminated, with what, and by how much.

ii. If the soil is tested for organic content after receipt by the facility, a report with the sampling date, test results, and the date results were received.

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iii. For all on-site handling of contaminated soil, use a checklist or other approved method to demonstrate that appropriate procedures were followed during all on-site handling activities. One checklist shall be completed for each day and for each soil lot (if multiple lots are handled per day).

iv. For soil aerated in accordance with 8-40-116 or 117 record the soil lot number, the amount of soil in the lot, the organic content, the final placement date, the final placement location, and describe how the soil was handled or used on-site.

v. For final disposal at a landfill, record on a daily basis the soil lot number, the amount of soil placed in the landfill, the disposal date, and the disposal location.

vi. Summarize the total amount of contaminated soil disposed of at this site on a monthly and calendar year basis to demonstrate compliance with subpart g.

All records shall be retained for at least 5 years from the date of entry and shall be made available for District inspection upon request.

(Basis: Offsets and Regulation 8-40-301, 8-40-304 and 8-40-305)

16. During all times that the landfill gas collection system is operating, all collected landfill gas shall be vented to one of the following control system configurations: A-51 Landfill Gas Flare operating alone, A-60 Landfill Gas Flare operating alone, or A-51 and A-60 operating concurrently. In order to assure compliance with this condition, A-51 and A-60 shall be equipped with local and remote alarms and auto restart capabilities. (Basis: 8-34-301.1, 8-34-301.3, and 40 CFR 60.752(b)(2)(iii))

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17. The landfill gas collection system described in subpart a below shall be operated continuously as defined in Regulation 8-34-219. Wells, collectors, and adjustment valves shall not be shut off, disconnected, or removed from operation without written authorization from the District, unless the Permit Holder complies with all applicable requirements of Regulation 8, Rule 34, Sections 113, 116, 117, and 118. The Permit Holder shall apply for and receive a Change of Conditions before altering the landfill gas collection system described in subpart a below. Increasing or decreasing the number of wells or collectors, or significantly changing the length of collectors or the locations of wells or collectors are alterations that are subject to this requirement. Adding or altering risers, laterals, or header pipes is not subject to this requirement. The authorized number of landfill gas collection system components is the baseline count listed below plus any components added and minus any components decommissioned pursuant to Part 17b as evidenced by start-up/shut-down notification letters submitted to the District.

a. The Permit Holder has been issued a Permit to Operate for the landfill gas collection system components listed below, which includes all start-up/shut-down notifications submitted through February 1, 2010. Well and collector locations, depths, and lengths are as described in detail in Permit Application #21623.

	Required Components
Total Number of Vertical Wells:	95
Total Number of Horizontal Collectors:	7

b. The Permit Holder has been issued an Authority to Construct for the landfill gas collection system components listed below. Specific well and collector locations, depths, and lengths of associated piping are as described in detail in Permit Application #21623.

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	Minimum	Maximum
Install New Vertical Wells:	0	25
Decommission Vertical Wells:	0	14
Install New Horizontal Collectors	0	10
Decommission Horizontal Collectors	0	5
Replace Vertical Wells *	0	15

* one-for-one well replacement at new optimal locations

Wells installed or shutdown pursuant to subpart b shall be added to or removed from subpart a in accordance with the procedures identified in Regulations 2-6-414 or 2-6-415. The Permit Holder shall maintain records of the decommissioning date for each well that is shut down and the initial operation date for each new well.

(Basis: Regulations 2-1-301, 8-34-301.1, 8-34-304, 8-34-305, and 2-6-413)

18. The concentrations of non-methane organic compounds (NMOC), toxic air contaminants (TAC), and total reduced sulfur (TRS) compounds in landfill gas collected from the S-5 Redwood Landfill shall not exceed the limits listed below.
    a. Total Non-Methane Organic Compounds: 360 ppmv (calculated as hexane equivalent)
    (Basis: Cumulative Increase and Offsets)

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*b. For toxic air contaminants (TACs):

Compound	Concentration
Acrylonitrile	300 ppbv
Benzene	1,500 ppbv
Benzyl Chloride	500 ppbv
Carbon Tetrachloride	200 ppbv
Chlorobenzene	200 ppbv
Chloroethane	500 ppbv
Chloroform	200 ppbv
1,4 Dichlorobenzene	1,000 ppbv
Ethylene Dibromide	200 ppbv
Ethylene Dichloride	200 ppbv
Ethylidene Dichloride	500 ppbv
Hexane	2,000 ppbv
Isopropyl Alcohol	10,000 ppbv
Methyl Alcohol	300,000 ppbv
Methyl Ethyl Ketone	15,000 ppbv
Methylene Chloride	1,000 ppbv
Methyl tert-Butyl Ether	500 ppbv
Perchloroethylene	1,000 ppbv
Styrene	500 ppbv
1,1,2,2 Tetrachloroethane	200 ppbv
Toluene	20,000 ppbv
1,1,1 Trichloroethane	200 ppbv
Trichloroethylene	500 ppbv
Vinyl Chloride	2,000 ppbv
Vinylidene Chloride	500 ppbv
Xylenes	20,000 ppbv

(Basis: Regulation 2-5-302)

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c. The concentration of total reduced sulfur compounds (TRS) in collected landfill gas shall not exceed an annual average of 350 ppmv (calculated as H2S) and shall not exceed the following peak limits during any single test:
505 ppmv of TRS (calculated as H2S), during 2011-2014;
450 ppmv of TRS (calculated as H2S), during 2015-2018;
410 ppmv of TRS (calculated as H2S), during 2019-2022; and
370 ppmv of TRS (calculated as H2S), during 2023 and later.
The peak and annual average TRS concentrations shall be measured and calculated in accordance with Parts 31a and 31b. (Basis: Cumulative Increase, RACT, AB-2588 Air Toxics Hot Spots Act, and Regulations 2-5-302.3, 9-1-302, and 9-2-301)

19. The A-51 and A-60 Landfill Gas Flares shall be fired on landfill gas. (Basis: RACT and Regulation 2-2-112)

20. The throughput of landfill gas (with an HHV of 500 BTU/scf) to the A-51 Landfill Gas Flare shall not exceed 4,320,000 scf during any one day. The throughput of landfill gas (with an HHV of 500 BTU/scf) to the A-60 Landfill Gas Flare shall not exceed 4,320,000 scf during any one day. The total throughput of landfill gas (with an HHV of 500 BTU/scf) to the A-51 and A-60 Flares combined shall not exceed 2,207,520,000 scf during any consecutive 12-month period. In order to demonstrate compliance with this condition, the A-51 and A-60 Flares shall each be equipped with ~~a~~ one or more properly operating continuous gas flow meters. (Basis: Cumulative Increase, 40 CFR 60.756(b)(2)(i))

21. [deleted]

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22. The temperature in the combustion zone of each flare shall be maintained at the minimum temperature listed below, averaged over any 3-hour period. In order to demonstrate compliance with this condition, A-51 and A-60 shall each be equipped with a continuous temperature monitor and recorder. The A-60 Flare shall be equipped with a continuous temperature monitor in each operating zone of the stack (Zone A and Zone B). The temperature recorder for A-60 shall continuously record either the Zone A or Zone B temperature, compatible with the zone the flare is operating in. If a source test demonstrates compliance with all applicable requirements at a different temperature, the APCO may revise these temperature limits, 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: Regulations 2-5-302, 8-34-301.3 and 8-34-501.3, and 40 CFR 60.756(b)(1))
    a. The minimum combustion zone temperature for A-51 is 1400 degrees F, averaged over any 3-hour period.
    b. The minimum combustion zone temperature for each stack zone at A-60 (Zone A or Zone B) is 1400 degrees F, averaged over any 3-hour period.

23. The A-51 and A-60 Landfill Gas Flares shall comply with the NMOC emission limit in Regulation 8-34-301.3. (Basis: Cumulative Increase, 8-34-301.3, and 40 CFR 60.752(b)(2)(iii)(B))

*24. [deleted]

VI. Permit Conditions

Condition # 19867

FOR: S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS; AND
S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

25. Nitrogen oxides (NO_x) emissions from each enclosed flare (A-51 and A-60) shall not exceed 0.06 pounds of NO_x, calculated as NO_2, per million BTU. Compliance with this emission limit may be demonstrated by not exceeding the following flue gas concentration limit: 15 ppmv of NO_x, corrected to 15% oxygen, dry basis. (Basis: RACT and Offsets)

26. Carbon monoxide (CO) emissions from each enclosed flare (A-51 and A-60) shall not exceed 0.20 pounds of CO per million BTU. Compliance with these emission limits may be demonstrated by not exceeding the following flue gas concentration limit: 82 ppmv of CO, corrected to 15% oxygen, dry basis. (Basis: RACT and Cumulative Increase)

27. [deleted]

28. [deleted]

29. The Permit Holder shall maintain records of all planned and unanticipated shut downs of the A-51 and A-60 Flares and of any temperature excursions. The records shall include the date, time, duration, and reason for any shut down or excursion. Any unanticipated shut downs or temperature excursions shall be reported to the Enforcement Division immediately. All inspection and maintenance records, records of shut downs and excursions, gas flow records, temperature records, analytical results, source test results, and any other records required to demonstrate compliance with the above permit conditions, Regulation 8 Rule 34, or 40 CFR Part 60 Subpart WWW shall be retained on site for a minimum of five years and shall be made available to District staff upon request. (Basis: 2-6-501, 8-34-501, 40 CFR 60.758)

VI. Permit Conditions

Condition # 19867

FOR: S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS; AND
S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

30. In order to demonstrate compliance with Parts 22, 23, 25, and 26 above, Regulation 8, Rule 34, Sections 301.3 and 412, and 40 CFR 60.8 and 60.752(b)(2)(iii)(B), the Permit Holder shall ensure that a District approved source test is conducted annually on the A-51 Landfill Gas Flare and the A-60 Landfill Gas Flare. Each annual source test shall determine the following:
    a. landfill gas flow rate to the flare (dry basis);
    b. concentrations (dry basis) of carbon dioxide (CO_2), nitrogen (N_2), oxygen (O_2), methane (CH_4), and total non-methane organic compounds (NMOC) in the landfill gas;
    c. stack gas flow rate from the flare (dry basis);
    d. concentrations (dry basis) of NO_x, CO, NMOC, and O_2 in the flare stack gas;
    e. NMOC destruction efficiency achieved by the flare;
    f. NO_x and CO emission rates from the flare in units of pounds per million BTU,
    g. average combustion zone temperature in the flare during the test period.

    Annual source tests shall be conducted no later than 12 months after the previous test. The annual source test at A-60 may be conducted while it is operating in either zone, provided that each operating zone is tested at least once every five years. The Source Test Section of the District shall be contacted to obtain 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 and the Source Test Section within 60 days of the test date. (Basis: Cumulative Increase, RACT, Offsets, Regulations 2-5-501, 8-34-301.3, 8-34-412, 40 CFR 60.8 and 40 CFR 60.752(b)(2)(iii)(B))

VI. Permit Conditions

Condition # 19867

FOR: S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS; AND
S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

31. Landfill Gas Testing:
    a. The Permit Holder shall conduct a characterization of the landfill gas on a quarterly basis with one test concurrent with one of the annual source tests required by Part 30 above. The landfill gas sample shall be drawn from the main landfill gas header. Each quarterly landfill gas sample shall be analyzed for the sulfur compounds listed below. Once per year (concurrent with a Part 30 annual source test) the landfill gas shall be analyzed for all the organic and sulfur compounds listed below. All concentrations shall be reported on a dry basis. The laboratory analysis report for the annual organic and sulfur compound gas characterization test shall be included with the Part 30 source test report and shall be submitted to the Compliance and Enforcement Division and the Source Test Section within 60 days of the test date. (Basis: AB-2588 Air Toxics Hot Spots Act, and Regulations 2-5-302, 8-34-412, 9-1-302, and 9-2-301)

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

VI. Permit Conditions

Condition # 19867

FOR: S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS; AND
S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

Organic Compounds
acrylonitrile
benzene
benzyl chloride
carbon tetrachloride
chlorobenzene
chloroethane
chloroform
1,1 dichloroethane
1,1 dichlorethene
1,2 dichlorethane
1,4 dichlorobenzene
ethylbenzene
ethylene dibromide
hexane
isopropyl alcohol
methyl alcohol
methyl ethyl ketone
methylene chloride
methyl tert-butyl ether
perchloroethylene
styrene
toluene
1,1,2,2 tetrachloroethane
1,1,1 trichloroethane
trichloroethylene
vinyl chloride
xylenes

VI. Permit Conditions

Condition # 19867

FOR: S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS; AND
S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

b. Once per week, beginning no later than March 31, 2005, the Permit Holder shall analyze the landfill gas for hydrogen sulfide (H2S) concentration using a Draeger tube to further demonstrate compliance with Part 18c and Regulation 9-1-302. The landfill gas sample shall be drawn from the main landfill gas header. The Permit Holder shall follow the manufacturer's procedures for using the Draeger tube and interpreting the results. The total reduced sulfur (TRS) content of the landfill gas shall be calculated using the average ratio of TRS/H2S for this site according to the following equation: TRS = 1.015 * H2S measured by Draeger tube. The Permit Holder shall maintain records of all Draeger tube test dates and test results and shall summarize the average H2S concentrations and the calculated TRS content of the landfill gas on a quarterly basis. Each Draeger tube test result (after conversion to TRS content) and the quarterly laboratory analysis in Part 31a shall be compared to the Peak TRS Limit in Part 18c. On a rolling quarterly basis, the Permit Holder shall determine the annual average TRS content for comparison to the Annual Average TRS Limit in Part 18c. (Basis: Cumulative Increase, RACT, and Regulations 9-1-302 and 9-2-301).

32. The annual report required by BAAQMD Regulation 8-34-411 shall be submitted in two semi-annual increments. The reporting period for the first increment of the Regulation 8-34-411 annual report that is submitted subsequent to the issuance of the MFR Permit for this site shall be from December 1, 2003 through April 30, 2004. This first increment report shall be submitted by May 31, 2004. The reporting periods and report submittal due dates for all subsequent increments of the Regulation 8-34-411 report 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 # 19867

FOR: S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS; AND
S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

*33. Within 3 months of approval of the permit condition changes pursuant to Application # 20607, the Permit Holder shall submit a proposal for monitoring ground level hydrogen sulfide concentrations at or near the fence line or property boundary for this facility and a proposal that identifies all feasible hydrogen sulfide emission reduction measures that could be implemented at this site if necessary. The Permit Holder shall initiate hydrogen sulfide monitoring within 3 months of receiving District approval for the monitoring protocol. If a measured hydrogen sulfide concentration at the fence line or property boundary exceeds a concentration limit in Regulation 9-2-301 (0.03 ppmv averaged over 60 minutes or 0.06 ppmv averaged over 3 minutes), the Permit Holder shall notify the District of the excess and shall implement any hydrogen sulfide emission reduction measures required by the District at that time. Ground level hydrogen sulfide monitoring may be discontinued five years after this facility ceases waste disposal activities or when the TRS content in the collected landfill gas (measured pursuant to Part 31b) is less than 110 ppmv of TRS for at least 8 consecutive quarters, whichever occurs sooner. (Basis: Regulation 9-2-301)

VI. Permit Conditions

Condition # 22820
FOR: S-49 DIESEL ENGINE FOR EMERGENCY BACK-UP GENERATOR

1. The owner/operator shall not exceed 20 hours per year per engine for reliability-related testing. [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection 93115.6 (b)(3)(A)(1)(a)]

2. The owner/operator shall operate each emergency standby engine only for the following purposes: to mitigate emergency conditions, for emission testing to demonstrate compliance with a District, State or Federal emission limit, or for reliability-related activities (maintenance and other testing, but excluding emission testing). Operating while mitigating emergency conditions or while emission testing to show compliance with District, State or Federal emission limits is not limited. [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection 93115.6 (b)(3)(A)(1)(a)]

3. The owner/operator shall operate each emergency standby engine only when a non-resettable totalizing meter (with a minimum display capability of 9,999 hours) that measures the hours of operation for the engine is installed, operated and properly maintained. [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection 93115.10 (d)(1)]

4. Records: The owner/operator shall maintain the following monthly records in a District-approved log for at least 6 months from the date of entry (60 months if the facility has been issued a Title V Major Facility Review Permit or a Synthetic Minor Operating Permit). Log entries shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request.
   a. Hours of operation for reliability-related activities (maintenance and testing).
   b. Hours of operation for emission testing to show compliance with emission limits.
   c. Hours of operation (emergency).
   d. For each emergency, the nature of the emergency condition.
   e. Fuel usage for each engine(s).

   [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection 93115.10 (f) (or, Regulation 2-6-501)]

VI. Permit Conditions

Condition # 22820
FOR: S-49 DIESEL ENGINE FOR EMERGENCY BACK-UP GENERATOR

5. At School and Near-School Operation:
If the emergency standby engine is located on school grounds or within 500 feet of any school grounds, the following requirements shall apply:
The owner/operator shall not operate each stationary emergency standby diesel-fueled engine for non-emergency use, including maintenance and testing, during the following periods:
   a. Whenever there is a school sponsored activity (if the engine is located on school grounds)
   b. Between 7:30 a.m. and 3:30 p.m. on days when school is in session. School" or "School Grounds" means any public or private school used for the purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in a private home(s). "School" or "School Grounds" includes any building or structure, playground, athletic field, or other areas of school property but does not include unimproved school property.

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection 93115.6 (b)(2)]

VI. Permit Conditions

Condition # 22940
FOR: S-56 PORTABLE HORIZONTAL GRINDER

*1. The conditions issued by CARB with Portable Equipment Registration Permit # 117378 are hereby incorporated by reference. (Basis: CARB PERP)

CARB PERP # 117378
FOR: REDWOOD LANDFILL, PORTABLE HORIZONTAL GRINDER

1. This registration is not valid for operation within the boundaries of the California Outer Continental Shelf and State Territorial Waters.
2. The equipment unit shall be properly maintained and kept in good operating condition at all times,
3. The registration identification device shall be affixed in a visible location on the registered portable equipment unit at all times and a legible copy of the registration certificate shall be kept on site with the portable equipment unit, and shall be made accessible to the Air Resources Board or district representative upon request.
4. The owner or operator must notify the United States Environmental Protection Agency and comply with 40 CFR 52.21 if:
    a. the portable equipment unit is part of a facility defined as a major source under 40 CFR 51.166 or 52.21, and
        i. the facility is located within 10 kilometers of a Class I area; or
        ii. the portable equipment unit, operating in conjunction with other registered portable equipment units, is part of a the stationary source and would be defined as a major modification to the stationary source under 40 CFR 51.166 or 52.21; or
    b. the portable equipment unit, operating in conjunction with other registered portable equipment units, would be defined as a major stationary source, as defined under 40 CFR 51.166 or 52.21.
5. The equipment unit and any replacement equipment unit shall not reside at the same location for more than 12 consecutive months.

VI. Permit Conditions

CARB PERP # 117378
FOR: REDWOOD LANDFILL, PORTABLE HORIZONTAL GRINDER

6. The registration certificate is not valid for operation at any given location where a local air district has issued a permit to operate for the same equipment unit or where other air contaminant emitting equipment, excluding engines, is operating as a stationary source and the operation of this equipment unit would qualify as part of the stationary source. A stationary source is any building, structure, facility, of installation which emits any affected pollutant directly or as a fugitive emission. Building, structure, facility, or installation includes all pollutant emitting activities which are under the same ownership operation, or which are owned or operated by entities which are under common control; belong to the same two-digit standard industrial classification code or by virtue of being part of a common industrial process, manufacturing process, or connected process involving a common raw material; and are located on one or more contiguous or adjacent properties.
7. The operation of this equipment unit shall not cause a public nuisance.
8. The portable equipment unit shall not be operated under both statewide registration and a district permit at any specific location.
9. When this equipment unit is sold, the new owner shall submit a change of ownership application. The existing registration is not valid for the new owner until the application has been filed and all applicable fees have been paid.
10. The operator of a portable engine or equipment unit shall obtain district authorization prior to operation at any specific location where the Statewide registration is not valid.
11. Materials containing hazardous waste or materials that may potentially lead to emissions of toxic air contaminants shall not be processed by this unit. Hazardous wastes and toxic air contaminants are any substances that may cause or contribute to an increase in serious illness, or may pose a potential hazard to human health. Examples of such materials include, but are not limited to: wood railroad ties, serpentine rock, chemically treated wood, construction or demolition debris containing asbestos, and contaminated soil.
12. There shall be no visible emissions beyond the property line on which the equipment is being operated.
13. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in anyone hour which is as dark or darker than Ringelmann 1 or equivalent 20 percent opacity.
14. Emissions shall not exceed 82 pounds per day of PM10.

VI. Permit Conditions

CARB PERP # 117378
FOR: REDWOOD LANDFILL, PORTABLE HORIZONTAL GRINDER

15. Open areas shall be maintained adequately wet to prevent fugitive emissions in excess of 20 percent opacity or Ringelmann 1.
16. Emissions of particulate matter less than 10 microns (PM 10), exclusive of emissions emitted directly from the associated portable engine, shall not exceed 10 tons per year per district.
17. Maximum daily throughput shall not exceed 820 tons per day when the equipment unit is operated by itself. When operating together with other equipment units as part of an onshore project, the daily throughput shall be tracked to ensure that total project PMl 0 emissions do not exceed 82 pounds per day. Compliance with this provision shall be determined daily by monitoring and recording total throughput of all registered equipment units operating as part of a project. Records shall include running totals of material throughput for each equipment unit multiplied by the corresponding PM10 emission factor included on each registration. The PM10 emission factor for this unit is 0.1 pounds PM10 per ton of material processed. These records are to be made accessible to the Air Resources Board or district representative upon request. An onshore project is one or more registered engines or equipment units operated at one location under the same or common ownership or control, and used to perform a single activity.
18. Maximum annual throughput shall not exceed 200,000 tons per year.
19. All roads subject to vehicular traffic shall be either paved or adequately watered to minimize fugitive particulate matter emissions.
20. The wood waste shall be kept sufficiently moist to prevent dust emissions.
21. Water spray equipment shall be properly maintained and used whenever the unit is in operation, unless there are no visible emissions.
22. Daily records shall include a log of date, registration number, location(s) at which the equipment was operated (identified by district, county or specific location), type of material processed, and throughput of material processed.
23. Daily records shall be maintained at a central place of business for five years, and made accessible to the Executive Officer or district upon request.

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CARB PERP # 117378
FOR: REDWOOD LANDFILL, PORTABLE HORIZONTAL GRINDER

24. If a registered portable equipment unit will be in a district for more than five days, the operator shall notify the district in writing, facsimile, electronic mail, or telephone within two working days of coming into the district. Notification shall include: the registration number of the equipment unit, name and phone of the responsible official, and estimated number of days the equipment unit will be located in the district. If the district has not been notified because the owner or operator did not expect the duration of operation to trigger notification, the operator shall notify the district within 12 hours of determining the portable equipment unit will be operating in the district more than five days.
25. District notification is not required when operating within the boundaries of the Bay Area Air Quality Management District.
26. The owner of a registered portable equipment unit shall notify the Executive Officer in writing within five days of replacing the registered portable equipment unit with an identical replacement. The notification shall include: company name, responsible official, phone number, registration number, make, model, throughput, and description of the mechanical breakdown, serial number of the identical replacement, and applicable fees.

VI. Permit Conditions

Condition # 23052
FOR: S-58 AERATED LEACHATE POND

1. The total leachate influent rate to the S-58 Aerated Leachate Pond, excluding non-contact storm water runoff, shall not exceed 39.42 million gallons during any consecutive 12-month period. (Basis: POC Offsets and NSR for TAC)

2. The average concentration of POC in the leachate influent to S-58 shall not exceed 500 ppb by weight. (Basis: POC Offsets)

*3. The average concentrations of specified toxic air contaminants in the leachate influent to S-58 shall not exceed the limits identified in subparts a-c below. (Basis: NSR for TAC)
   a. no more than 19 ppb by weight of benzene
   b. no more than 48 ppb by weight of 1,4-dichlorobenzene
   c. no more than 7 ppb by weight of vinyl chloride

4. To demonstrate compliance with Parts 2 and 3 above, the Permit Holder shall conduct annual analyses on the leachate influent to the S-58 Aerated Leachate Pond in accordance with the following procedures. (Basis: POC Offsets and NSR for TAC)
   a. Leachate samples shall be collected from at least two leachate wells per year on a rotating basis in accordance with Waste Discharge Requirement Order Number 95-110.
   b. Each leachate sample shall be analyzed for the concentration by weight of critical organic compounds (COC), benzene, 1,4-dichlorobenzene, and vinyl chloride. These concentrations shall be determined using Regional Water Quality Control Board methods that measure wastewater for the concentration of each organic compound having a carbon number of C-14 or less using gas chromatography. The COC concentration is equal to the sum of all detected concentrations minus the concentration of any compound excluded from COC pursuant to Regulation 8-8-210. Alternatively, COC concentration may be determined in accordance with Regulation 8-8-601.
   c. For each sample analyzed, the concentration of POC shall be calculated by subtracting the detected concentration for any non-precursor organic compounds (NPOC) from the total COC concentration determined above. NPOC are defined in Regulation 2-1-207 and include but are not limited to: acetone, methylene chloride, perchloroethylene, 1,1,1 trichloroethane, many chlorofluorocarbons, and most perfluorocarbons compounds.

VI. Permit Conditions

Condition # 23052
FOR: S-58 AERATED LEACHATE POND

d. For each annual wastewater testing event, the Permit Holder shall calculate and record the average concentrations (in ppb by weight) of POC, benzene, 1,4-dichlorobenzene, and vinyl chloride for all of the samples analyzed pursuant to subpart a. If a concentration is reported as non-detect for a compound, the detection limit for that compound shall be used for this average concentration computation.

e. The Permit Holder shall retain all analytical results, calculations, and records required by this part for at least five years from the date of entry. All records shall be kept on site or made available to District staff upon request.

5. To demonstrate compliance with Part 1, the Permit Holder shall calculate and record the total leachate flow rate to S-58 for each month (gallons/month) and the total cumulative flow rate to S-58 for each rolling 12-month period (millions of gallons/year). The monthly leachate flow rate records shall clearly identify each leachate pump station that contributed to the total monthly flow rate, the procedures used to calculate the monthly leachate flow rate to S-58, and any records necessary to verify these calculated flow rates. These records shall be retained for at least five years from the date of entry. All records shall be kept on site or made available to District staff upon request. (Basis: POC Offsets and NSR for TAC)

VI. Permit Conditions

Condition # 25260
FOR: S-63 DRY WASTE MATERIAL RECOVERY FACILITY; AND A-63 WATER SPRAYS

1. The total amount of waste materials processed by the S-63 Dry Waste Material Recovery Facility shall not exceed 400 tons during any day and shall not exceed 124,800 tons during any consecutive 12 month period. (Basis: Cumulative Increase)

*2. The waste materials processed at S-63 shall not contain any designated or hazardous wastes or regulated asbestos containing materials (RACM). If any waste materials are processed at S-63 that are not designated or hazardous wastes but do contain PCBs, hexavalent chromium (chromium VI), or crystalline silica, the operator shall comply with the following additional waste processing limitations (2a-2c), unless the operator can demonstrate to the satisfaction of the APCO that processing such material will not result in emissions in excess of an acute or chronic trigger level identified in Regulation 2, Rule 5, Table 2-5-1 Toxic Air Contaminant Trigger Levels. (Regulation 2-5-110)
   a. For waste materials processed at S-63 that contain PCB, the operator shall either ensure that the waste materials processed contain no more than 2.4E-4 ppm by weight of PCB, or the operator shall ensure that no more than 4800 tons of waste containing PCB are processed at S-63 during any consecutive 12 month period.
   b. For waste materials processed at S-63 that contain hexavalent chromium (chromium VI), the operator shall either ensure that the waste materials processed contain no more than 5.5E-1 ppm by weight of hexavalent chromium, or the operator shall ensure that no more than 33,000 tons of waste containing hexavalent chromium are processed at S-63 during any consecutive 12 month period.
   c. For waste materials processed at S-63 that contain crystalline silica, the operator shall either ensure that the waste materials processed contain no more than 8.5% by weight of crystalline silica, or the operator shall ensure that no more than 10,600 tons of waste containing crystalline silica are processed at S-63 during any consecutive 12 month period.

3. The loading and unloading operations, transfer points, and screens associated with S-63 shall be abated by the A-63 Water Sprays, as necessary to ensure compliance with Part 5. (Basis: Cumulative Increase and Regulations 6-1-301 and 6-1-305)

VI. Permit Conditions

Condition # 25260
FOR: S-63 DRY WASTE MATERIAL RECOVERY FACILITY; AND A-63 WATER SPRAYS

4. The owner/operator shall employ best management practices including sweeping, watering, and other housekeeping procedures in order to minimize dust emissions from S-63, the associated storage areas, parking lots, and roadways, as necessary to ensure compliance with Part 5. (Basis: Regulations 1-301, 6-1-301, and 6-1-305)

5. Visible dust emissions from S-63 shall not exceed Ringelmann 1.0 or result in fallout on adjacent properties in such quantities as to cause a public nuisance per Regulation 1-301. To ensure compliance with this Part and with Regulations 6-1-301 and 6-1-305, the owner/operator shall visually observe all material handling operations associated with S-63 and shall immediately initiate corrective actions, if any visible dust emissions are detected that persist for longer than 3 minutes in an hour. (Basis: Regulation 1-301, 6-1-301, and 6-1-305)

6. To demonstrate compliance with Parts 1 and 2, the owner/operator shall maintain the following records in a District approved log and shall make these records available to District staff upon request. All records shall be retained for at least five years from the date of entry. These record-keeping requirements shall not replace the record-keeping requirements contained in any applicable District or state regulations. (Basis: Cumulative Increase and Regulation 2-5-110)
   a. Record the total amount of waste materials processed at S-63 on a daily basis.
   b. Summarize the daily waste acceptance records on a monthly basis.
   c. Summarize the monthly waste acceptance records for each consecutive rolling 12-month period.
   d. Maintain copies of the waste acceptance procedures for S-63 and sufficient additional records or other documentation for materials delivered to S-63 that contain PCB, hexavalent chromium, or crystalline silica to verify compliance with Part 2.
   e. Maintain a copy of the operating practices that are required to be employed at S-63 and surrounding areas to minimize particulate emissions from these operations.

VII. APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS

This section has been included 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), hourly (H), 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-2 SEWAGE SLUDGE STORAGE, MAIN POND

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Total Carbon Emissions	BAAQMD 8-2-301	Y		$\leq$ 15 pounds/day or $\leq$ 300 ppm, dry basis	None	N	N/A
H_2S	BAAQMD 9-2-301	N		Property Line Ground Level Limits: $\leq$ 0.06 ppm, averaged over 3 minutes and $\leq$ 0.03 ppm, averaged over 60 minutes	None	N	N/A

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE;
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS; AND
S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

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 Installa-tion 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 # 19867, Parts 5 and 17b	P/E	Records
Collection System Installa-tion 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 # 19867, Parts 5 and 17b	P/E	Records
Collection System Installa-tion 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 # 19867, Parts 5 and 17b	P/E	Records
Collection System Installa-tion 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

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S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS; AND
S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

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 Installa-tion 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
Gas Flow	BAAQMD 8-34-301 and 301.1 and BAAQMD Condition # 19867, Parts 16 and 17	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, 8-34-501.2, 8-34-501.10, 8-34-508, and BAAQMD Condition # 19867, Parts 20 and 29	C P/D	Gas Flow Meter and Recorder (every 15 minutes), and Records of Landfill Gas Flow Rates, Collection and Control Systems Downtime, and Collection System Components
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

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S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS; AND
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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, 301.1, 301.3, and 301.4, and BAAQMD Condition # 19867, Part 16	Y		Vent all collected gases to a properly operating control system and operate control system continuously.	BAAQMD 8-34-501.10 and 508 and BAAQMD Condition # 19867, Parts 16 and 29	C P/E	Gas Flow Meter and Recorder (every 15 minutes); Alarms; and Records
Gas Flow	40 CFR 60.752 (b)(2)(iii) and 60.753(e) and (f)	Y		Vent all collected gases to a properly operating control system and operate control system at all times when gas is vented to it	40 CFR 60.756(b)(2) (i or ii) and 60.758(c)(2)	C or P/M	Gas Flow Meter and Recorder (every 15 minutes) or Monthly Inspection of Bypass Valve and Lock and Records
Landfill Gas Through-put	BAAQMD Condition # 19867, Part 20	Y		For A-51: $\leq$ 4,320,000 scf per day and For A-60: $\leq$ 4,320,000 scf per day and for A-51 and A-60 Combined: $\leq$ 2,207,520,000 scf per 12-month period	BAAQMD Condition # 19867, Parts 20 and 29	C	Gas Flow Meter and Recorder
Collection and Control Systems Shutdown Time	BAAQMD 8-34-113.2	Y		$\leq$ 240 hours per year and $\leq$ 5 consecutive days	BAAQMD 8-34-501.1	P/D	Operating Records

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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 Malfunc-tion	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)
Control System Startup Shutdown or Mal-function	40 CFR 60.755(e)	Y		≤ 1 hour per event	40 CFR 60.7(b), 60.757(f)(2) and (f)(3)	P/D	Operating Records (all occurrences and duration of each)
Startup Shutdown or Mal-function Pro-cedures	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 Inopera-tion 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 (for gas flow and temperature monitors)

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S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Contin-uous Monitors	40 CFR 60.13(e)	Y		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 (for gas flow and temperature 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
Temper-ature of Gas at Wellhead	BAAQMD 8-34-305.2	Y		< 55 ^{o}C	BAAQMD 8-34-414, 501.9 and 505.2	P/M	Monthly Inspection and Records
Temper-ature of Gas at Wellhead	40 CFR 60.753(c)	Y		< 55 ^{o}C	40 CFR 60.755(a)(5), 60.756(a)(3), and 60.758(c) and (e)	P/M	Monthly Inspection and Records
Gas Concen-trations at Wellhead	BAAQMD 8-34-305.3 or 305.4	Y		N_2 < 20% OR O_2 < 5%	BAAQMD 8-34-414, 501.9 and 505.3 or 505.4	P/M	Monthly Inspection and Records

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Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Gas Concen-trations at Wellhead	40 CFR 60.753(c)	Y		$N_2 < 20\%$ OR $O_2 < 5\%$	40 CFR 60.755(a)(5), 60.756(a)(2), and 60.758(c) and (e)	P/M	Monthly Inspection and Records
Well Shutdown Limits	BAAQMD 8-34-116.2	Y		No more than 5 wells at a time or 10% of total collection system, whichever is less	BAAQMD 8-34-116.5 and 501.1	P/D	Records
Well Shutdown Limits	BAAQMD 8-34-116.3	Y		$\leq$ 24 hours per well	BAAQMD 8-34-116.5 and 501.1	P/D	Records
Well Shutdown Limits	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	BAAQMD 8-34-117.5	Y		$\leq$ 24 hours per well	BAAQMD 8-34-117.6 and 501.1	P/D	Records
Total Carbon Emissions	BAAQMD 8-2-301	Y		$\leq$ 15 pounds/day or $\leq$ 300 ppm, dry basis (applies to soil containing $\leq$ 50 ppmw of VOC during aeration or use as cover)	BAAQMD Condition # 19867, Part 14	P/D OR P/E	Records and Emission Calculations OR Soil Surface Screening and Records
Volatile Organic Compound (VOC) Emissions	BAAQMD Condition # 19867, Part 14	Y		$\leq$ 10,530 pounds per calendar year (applies to soil containing $\leq$ 50 ppmw of VOC during aeration or use as cover)	BAAQMD Condition # 19867, Part 14	P/E, M	Soil VOC Analysis, Records, and Emission Calculations

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S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

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 Com-pounds Plus Methane)	BAAQMD 8-34-301.2	Y		≤ 1000 ppmv as methane (component leak limit)	BAAQMD 8-34-501.6 and 503	P/Q	Quarterly Inspection of collection and control system components with portable analyzer and Records
TOC	BAAQMD 8-34-303	Y		≤ 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 Portable Analyzer of Surface, Various Reinspec-tion Times for Leaking Areas, and Records

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Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
TOC	40 CFR 60.753(d)	Y		<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 Portable Analyzer of Surface, Various Reinspec-tion Times for Leaking Areas, and Records
Non-Methane Organic Com-pounds (NMOC)	BAAQMD Condition # 19867, Part 18a	Y		$\leq$ 360 ppmv in landfill gas (calculated as hexane equivalent)	BAAQMD Condition # 19867, Part 31	P/A	Annual Landfill Gas Characteri-zation Analysis
NMOC	BAAQMD 8-34-301.3 and BAAQMD Condition # 19867, Part 23	Y		$\geq$ 98% removal by weight OR < 30 ppmv, dry basis @ 3% O_2, expressed as methane (applies to Flares)	BAAQMD 8-34-412 and 8-34-501.4 and BAAQMD Condition # 19867, Part 30	P/A	Annual Source Tests and Records

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Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NMOC	40 CFR 60.752(b)(2)(iii)(B)	Y		$\geq$ 98% removal by weight OR < 20 ppmv dry @ 3% O_2, expressed as hexane (applies to Flares)	40 CFR 60.8 and 60.752(b)(2)(iii)(B) and 60.758 (b)(2)(ii)	P/E	Initial Source Test and Records
Temperature of Combustion Zone (CT)	BAAQMD Condition # 19867, Part 22a	Y		A-51: CT $\geq$ 1400 °F, averaged over any 3-hour period	BAAQMD 8-34-501.3, 8-34-507, and BAAQMD Condition # 19867, Part 22	C	Temperature Sensor and Recorder (continuous)
Temperature of Combustion Zone (CT)	BAAQMD Condition # 19867, Part 22b	Y		A-60, Zone A or Zone B: CT $\geq$ 1400 °F averaged over any 3-hour period	BAAQMD 8-34-501.3, 8-34-507, and BAAQMD Condition # 19867, Part 22	C	Temperature Sensor and Recorder (continuous)

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Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
CT	40 CFR 60.758 (c)(1)(i)	Y		A-51: CT $\geq$ 1400 °F (3-hour average); A-60, Zone A: CT $\geq$ 1400 °F (3-hour average); A-60, Zone B: CT $\geq$ 1400 °F (3-hour average) from ($CT \geq CT_{PF} - 28$ °C), where CT_{PF} is the average combustion temperature during the most recent complying performance test	40 CFR 60.756(b)(1) and 60.758 (b)(2)(i)	C	Temperature Sensor and Recorder (measured every 15 minutes and averaged over 3 hours)
Opacity	BAAQMD 6-1-301, SIP 6-301, and BAAQMD Condition # 19867, Part 11	Y		Ringelmann No. 1 for < 3 minutes/hour (applies to S-76 and S-77)	BAAQMD Condition # 19867 Part 11	P/E, D	Records of all site watering and road cleaning events
Opacity	BAAQMD 6-1-301 and SIP 6-301	Y		Ringelmann No. 1 for < 3 minutes/hour (applies to Flares)	None	N	NA
FP	BAAQMD 6-1-310 and SIP 6-310	Y		$\leq$ 0.15 grains/dscf (applies to Flares)	None	N	NA

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Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
FP	BAAQMD 6-1-311 and SIP 6-311	Y		$E = 0.026(P)^{0.67}$ where: E = Allowable Emission Rate (lb/hr); and P = Process Weight Rate (lb/hr) Maximum Allowable Emission Rate = 40 lb/hr For P >57,320 lb/hr	None	N	NA
PM10	BAAQMD Condition # 19867, Part 3	Y		$\leq$ 992.5 pounds/day and $\leq$ 154.25 tons/year (from fugitive road dust, S-76 and S-77)	BAAQMD Condition # 19867, Parts 5 and 10	P/D	Records
NOx	BAAQMD Condition # 19867, Part 25	Y		From Each Flare: $\leq$ 0.06 pounds per MM BTU, calculated as NO_2, or $\leq$ 15 ppmv @ 15% O_2, dry	BAAQMD Condition # 19867, Part 30	P/A	Annual Source Test
CO	BAAQMD Condition # 19867, Part 26	Y		From Each Flare: $\leq$ 0.20 pounds per MM BTU, or $\leq$ 82 ppmv @ 15% O_2, dry	BAAQMD Condition # 19867, Part 30	P/A	Annual Source Test
SO_2	BAAQMD 9-1-301	Y		Property Line Ground Level Limits: $\leq$ 0.5 ppm for 3 minutes and $\leq$ 0.25 ppm for 60 min. and $\leq$0.05 ppm for 24 hours (applies to Flares)	None	N	NA

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Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO_2	BAAQMD 9-1-302	Y		$\leq$ 300 ppm, dry basis (applies to A-50 and A-51, each)	BAAQMD Condition # 19867, Parts 18c and 31	P/W, Q	Weekly Draeger Tube Analysis and Quarterly Laboratory Analysis of Landfill Gas
H_2S	BAAQMD 9-2-301 and BAAQMD Condition #19867, Part 33	N		Property Line Ground Level Limits: $\leq$ 0.06 ppm, averaged over 3 minutes and $\leq$ 0.03 ppm, averaged over 60 minutes	BAAQMD Condition #19867, Part 33	P/E	Portable Analyzer at Fence Line and Records
Total Reduced Sulfur (TRS)	BAAQMD Condition # 19867, Part 18c	Y		Peak TRS Limit (any single test): $\leq$ 505 ppmv TRS in 2011-2014 $\leq$ 450 ppmv TRS in 2015-2018 $\leq$ 410 ppmv TRS in 2019-2022 $\leq$ 370 ppmv TRS in 2023 + and Annual Average TRS Limit: $\leq$ 350 ppmv of TRS in landfill gas (expressed as H_2S)	BAAQMD Condition # 19867, Part 31	P/W, Q	Weekly Draeger Tube Analysis and Quarterly Laboratory Analysis of Landfill Gas and Records
Cumula-tive Waste Disposal	BAAQMD Condition # 19867, Part 1	Y		$\leq$ 25.0 million cubic yards of all wastes and cover materials (excluding final cover)	BAAQMD Condition # 19867, Part 5	P/D	Records

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Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Decom-posable Material Disposal	BAAQMD Condition # 19867, Part 2	Y		≤ 23.185 million tons (cumulative) and ≤ 541,140 tons/year of decomposable wastes and decomposable cover materials, unless fugitive POC ≤ 26.380 tons/year	BAAQMD Condition # 19867, Part 5	P/D	Records
Material Acceptance Rates	BAAQMD Condition # 19867, Part 3	Y		All Materials, except non-decomposable cover and construction materials: ≤ 2310 tons per day (except during emergencies) and ≤ 718,410 tons per calendar year Sewage Sludge: ≤ 310 wet tons per day (except during emergencies) and ≤ 96,410 wet tons per calendar year	BAAQMD Condition # 19867, Part 5	P/D	Records
Cover Material Usage Rate	BAAQMD Condition # 19867, Part 4	Y		All Cover Materials: ≤ 1160 tons per day and ≤ 360,760 tons per calendar year Decomposable Cover Materials: ≤ 350 tons per day and ≤ 108,850 tons per calendar year	BAAQMD Condition # 19867, Part 5	P/D	Records
Contami-nated Soil Disposal Rate	BAAQMD Condition # 19867, Part 15f	Y		≤ 6240 tons per calendar year	BAAQMD Condition # 19867, Part 15m	P/E	Records

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Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Contaminated Soil VOC Content	BAAQMD Condition # 19867, Part 15f	Y		≤ 100 ppmw of VOC in soil	BAAQMD Condition # 19867, Part 15m	P/E	Records
Amount of Contaminated Soil Aerated or Used as Cover	BAAQMD 8-40-116.1	Y		≤ 1 cubic yard per project	BAAQMD Condition # 19867, Part 15m	P/E	Records
Amount of Contaminated Soil Aerated or Used as Cover	BAAQMD 8-40-116.2	Y		≤ 8 cubic yards per project, provided organic content ≤ 500 ppmw and limited to 1 exempt project per 3 month period	BAAQMD 8-40-116.2 and BAAQMD Condition # 19867, Part 15m	P/E	Records
Amount of Accidental Spillage	BAAQMD 8-40-117	Y		Soil Contaminated by Accidental Spillage of ≤ 5 gallons of Liquid Organic Compounds	BAAQMD Condition # 19867, Part 15m	P/E	Records
Total Aeration Project Emissions	BAAQMD 8-40-118	Y		≤ 150 pounds per project and toxic air contaminant emissions < BAAQMD Table 2-5-1 trigger levels	BAAQMD Condition # 19867, Part 15m	P/E	Records
Amount of Contaminated Soil Aerated or Used as Cover	BAAQMD 8-40-301 and BAAQMD Condition # 19867, Part 15k	Y		Prohibited for Soil with Organic Content >50 ppmw unless exempt per BAAQMD 8-40-116, 117, or 118	BAAQMD Condition # 19867, Part 15m	P/E	Records

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Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Contaminated Soil Handling	BAAQMD Condition # 19867, Part 15e	Y		Limited to 2 on-site transfers per lot of contaminated soil	BAAQMD Condition # 19867, Part 15m	P/E	Records
Contaminated Soil On-Site Storage Time	BAAQMD Condition # 19867, Part 15f	Y		Storage Time ≤ 90 days from receipt	BAAQMD Condition # 19867, Part 15m	P/E	Records
Vehicle Fleet Weight	BAAQMD Condition # 19867, Part 6	Y		≤ 15.31 tons for off-site vehicle fleet traveling on paved roads	BAAQMD Condition # 19867, Part 10	P/E	Records
Vehicle Fleet Weight	BAAQMD Condition # 19867, Part 6	Y		≤ 16.63 tons for off-site vehicle fleet traveling on gravel or dirt roads	BAAQMD Condition # 19867, Part 10	P/E	Records
Vehicle Fleet Weight	BAAQMD Condition # 19867, Part 7	Y		≤ 28.37 tons for on-site vehicle fleet	BAAQMD Condition # 19867, Part 10	P/E	Records
Vehicle Miles Traveled (VMT)	BAAQMD Condition # 19867, Part 8	Y		VMT Limit / Road Type ≤ 280 per day gravel ≤ 639 per day dirt ≤ 662 per day paved ≤ 87,080 per year gravel ≤ 198.650 per year dirt ≤ 205,880 per year paved	BAAQMD Condition # 19867, Part 10	P/D	Records
Vehicle Miles Traveled (VMT)	BAAQMD Condition # 19867, Part 9	Y		VMT Limit / Road Type ≤ 61 per day dirt ≤ 19,080 per year dirt	BAAQMD Condition # 19867, Part 10	P/D	Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – B
Applicable Limits and Compliance Monitoring Requirements

S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE;
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS; AND
S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Water Application Rates	BAAQMD Condition # 19867, Part 11a	Y		≤ 0.5 gallons per square yard on unpaved roads and parking areas	BAAQMD Condition # 19867, Part 11f-g	P/D	Records
Water Application Frequency	BAAQMD Condition # 19867, Part 11b-d	Y		unpaved roads: once every 3 hours; unpaved parking areas and infrequently traveled unpaved roads: twice per day or once every 150 vehicle trips; active face, stockpiles, composting, etc.: twice per day	BAAQMD Condition # 19867, Part 11f-g	P/D	Records
Toxic Air Contaminants (TACs)	BAAQMD Condition # 19867, Part 18b	N		Concentration Limits for TACs in Landfill Gas: Compound — PPBV acrylonitrile 300 benzene 1,500 benzyl chloride 500 carbon tetrachloride 200 chlorobenzene 200 chloroethane 500 chloroform 200 1,4 dichlorobenzene 1,000 ethylene dibromide 200 ethylene dichloride 200 ethylidene dichloride 500 hexane 2,000 isopropyl alcohol 10,000 methyl alcohol 300,000	BAAQMD Condition # 19867, Part 31	P/A	Annual Landfill Gas Analysis

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S-5 REDWOOD LANDFILL – WASTE DECOMPOSITION PROCESS; EQUIPPED WITH GAS COLLECTION SYSTEM; ABATED BY A-51 LANDFILL GAS FLARE; AND A-60 LANDFILL GAS FLARE;
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING; ABATED BY A-18 WATER SPRAYS; AND
S-77 REDWOOD LANDFILL – EXCAVATING, BULLDOZING, AND COMPACTING ACTIVITIES; ABATED BY A-18 WATER SPRAYS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
				methyl ethyl ketone 15,000 methylene chloride 1,000 methyl t-butyl ether 500 perchloroethylene 1,000 Styrene 500 1,1,2,2 tetrachloroethane 200 toluene 20,000 1,1,1 trichloroethane 200 trichloroethylene 500 vinyl chloride 2,000 vinylidene chloride 500 xylenes 20,000			

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – C
Applicable Limits and Compliance Monitoring Requirements
S-34 COMPOST FACILITY OPERATIONS; S-39 TROMMEL SCREENING PROCESSES; AND A-18 WATER SPRAYS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD 6-1-301, SIP 6-301, and BAAQMD Condition # 13123, Part 5	Y		≤ Ringelmann 1.0 for 3 minutes in any hour	BAAQMD Condition # 13123, Part 5	P/E	Observation of Source in Operation
FP	BAAQMD 6-1-311 and SIP 6-311	Y		$E = 0.026(P)^{0.67}$ where: E = Allowable Emission Rate (lb/hr); and P = Process Weight Rate (lb/hr) Maximum Allowable Emission Rate = 40 lb/hr For P >57,320 lb/hr	None	N	NA
Total Carbon Emissions	BAAQMD 8-2-301	Y		≤ 15 pounds/day or ≤ 300 ppm, dry basis	None	N	NA
H_2S	BAAQMD 9-2-301	N		Property Line Ground Level Limits: ≤ 0.06 ppm, averaged over 3 minutes and ≤ 0.03 ppm, averaged over 60 minutes	None	N	NA
Through-put	BAAQMD Condition # 13123, Part 1	Y		Material Produced at S-34: ≤ 50,000 tons per 12-month period; and Material Processed at S-39: ≤ 50,000 tons per 12-month period	BAAQMD Condition # 13123, Part 2	P/D	Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – C
Applicable Limits and Compliance Monitoring Requirements
S-34 COMPOST FACILITY OPERATIONS; S-39 TROMMEL SCREENING PROCESSES;
AND A-18 WATER SPRAYS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Stockpile Storage Time	BAAQMD Condition # 13123, Part 7	N		$\leq$ 72 hours from receipt or $\leq$ 7 days from receipt, if processing equipment is not functional or during exceptional circumstances	BAAQMD Condition # 13123, Part 2	P/D	Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – D
Applicable Limits and Compliance Monitoring Requirements
S-41 TEMPORARY STOCKPILES FOR YARD AND GREEN WASTE SHREDDING OPERATIONS; AND A-18 WATER SPRAYS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD 6-1-301, SIP 6-301, and BAAQMD Condition # 19865, Part 3	Y		≤ Ringelmann 1.0 for 3 minutes in any hour	BAAQMD Condition # 19865, Part 4	P/E	Observation of Source in Operation
FP	BAAQMD 6-1-311 and SIP 6-311	Y		$E = 0.026(P)^{0.67}$ where: E = Allowable Emission Rate (lb/hr); and P = Process Weight Rate (lb/hr) Maximum Allowable Emission Rate = 40 lb/hr For P >57,320 lb/hr	None	N	NA
Through-put	BAAQMD Condition # 19865, Part 1	Y		≤ 820 tons per day and ≤ 200,000 tons per year	BAAQMD Condition # 19865, Part 2	P/D	Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – E
Applicable Limits and Compliance Monitoring Requirements
S-42 SOIL AND COVER MATERIAL STOCKPILES; AND A-18 WATER SPRAYS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD 6-1-301, SIP 6-301, and BAAQMD Condition # 19866, Part 3	Y		< Ringelmann 1.0 for 3 minutes in any hour	BAAQMD Condition # 19866, Part 4	P/E	Observation of Sources in Operation
Total Carbon Emissions	BAAQMD 8-2-301	Y		≤ 15 pounds/day or ≤ 300 ppm, dry basis (applies to unintended aeration of soil containing ≤ 50 ppmw of VOC during transfers to and from stockpiles or during storage)	BAAQMD Condition # 19867, Part 14	P/D OR P/E	Records and Emission Calculations OR Soil Surface Screening and Records
Through-put	BAAQMD Condition # 19866, Part 1	Y		≤ 1160 tons per day and ≤ 105,500 tons per year	BAAQMD Condition # 19866, Part 2	P/D	Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – F
Applicable Limits and Compliance Monitoring Requirements
S-49 DIESEL ENGINE FOR BACK-UP GENERATOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD 6-1-303 and SIP 6-303	Y		≤ Ringelmann 2.0 for 3 minutes in any hour	None	N	NA
FP	BAAQMD 6-1-310 and SIP 6-310	Y		≤ 0.15 grains/dscf	None	N	NA
SO_2	BAAQMD 9-1-301	Y		Property Line Ground Level Limits: ≤ 0.5 ppm for 3 min. and ≤ 0.25 ppm for 60 min. and ≤ 0.05 ppm for 24 hours	None	N	NA
Liquid Fuel Sulfur Content	BAAQMD 9-1-304	Y		≤ 0.5% sulfur by weight	CCR, Title 13, Section 2281(a) (2 and 5), CCR, Title 17, Sections 93115.5 and 93115.10	P/E	CARB Diesel Fuel Sulfur Content Limits, Sales Restrictions, Usage Re-quirements, and Records
Liquid Fuel Sulfur Content	CCR Title 17, Section 93115.5 (b) and CCR, Title 13, Section 2281(a) (2 and 5)	N		Standby Engines must use CARB Diesel Fuel or other CARB Approved Alternative Fuel, which has Fuel Sulfur Limits of: ≤ 15 ppmw of S (for fuel sold after 6/1/06)	CCR, Title 17, Sections 93115.5 and 93115.10	P/E	CARB Diesel Fuel Sulfur Content Limits, Sales Restrictions, Usage Re-quirements, and Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – F
Applicable Limits and Compliance Monitoring Requirements
S-49 DIESEL ENGINE FOR BACK-UP GENERATOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Operating Hours	BAAQMD 9-8-330.2	N	Expires 1/1/12	Operating Hours for Reliability-Related Activities: ≤ 100 hours in a calendar year	BAAQMD 9-8-530 and BAAQMD Condition # 22820, Parts 3-4	C & P/M	Hour Meter and Records
Operating Hours	BAAQMD 9-8-330.3	N	1/1/12	Operating Hours for Reliability-Related Activities: ≤ 20 hours in a calendar year	BAAQMD 9-8-530 and BAAQMD Condition # 22820, Parts 3-4	C & P/M	Hour Meter and Records
Operating Hours	40 CFR 63.6640 (f)(1)(ii)	Y	5/3/13	Operating Hours for Maintenance Checks, Readiness Testing, and Other Non-Emergency Operation: ≤ 100 hours in a calendar year	40 CFR 63.6625(f) and 63.6655(f)(2)	C & P/M	Hour Meter and Records
Operating Hours	40 CFR 63.6640 (f)(1)(iii)	Y	5/3/13	Operating Hours for Non-Emergency Operation: ≤ 50 hours in a calendar year	40 CFR 63.6625(f) and 63.6655(f)(2)	C & P/M	Hour Meter and Records
Operating Hours	CCR, Title 17, Section 93115.6 (b)(3)(A)(1)(a)	N		Operating Hours for Reliability-Related Activities: ≤ 20 hours in a calendar year (for engines emitting ≥ 0.40 g/bhp-hr of diesel PM)	CCR, Title 17, Section 93115.10 (d)(1) and (f)(1)	C & P/M	Hour Meter and Records
Operating Hours	BAAQMD Condition # 22820, Part 1	N		Operating Hours for Reliability-Related Activities: ≤ 20 hours in a calendar year	BAAQMD Condition # 22820, Parts 3-4	C & P/M	Hour Meter and Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – F
Applicable Limits and Compliance Monitoring Requirements
S-49 DIESEL ENGINE FOR BACK-UP GENERATOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Idle Time	40 CFR 63.6625(h)	Y	5/3/13	≤30 minutes for start-up	None	N	N/A
Main-tenance Events	40 CFR, Part 63, Subpart ZZZZ, Table 2d 4.a.	Y	5/3/13	Change Oil and Filter: Every 500 hours of operation or annually, whichever comes first	40 CFR 63.6655(e)	P/E	Records
Main-tenance Events	40 CFR, Part 63, Subpart ZZZZ, Table 2d 4.b.	Y	5/3/13	Inspect Air Cleaner: Every 1,000 hours of operation or annually, whichever comes first	40 CFR 63.6655(e)	P/E	Records
Main-tenance Events	40 CFR, Part 63, Subpart ZZZZ, Table 2d 4.c.	Y	5/3/13	Inspect Hoses and Belts and (if necessary) Replace Hoses and Belts: Every 500 hours of operation or annually, whichever comes first	40 CFR 63.6655(e)	P/E	Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – G
Applicable Limits and Compliance Monitoring Requirements
S-55 NON-RETAIL GASOLINE DISPENSING FACILITY # 8573

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Gasoline Through-put	BAAQMD Condition # 14098	N		≤ 940,000 gallons per 12-month period	BAAQMD 8-5-501.1 and 8-7-503.1	P/A	Records
Through-put (exempt from Phase I)	BAAQMD 8-7-114	Y		≤ 1000 gallons per facility for tank integrity leak checking	BAAQMD 8-7-501.1 and 8-7-503.2	P/E	Records
Organic Com-pounds	BAAQMD 8-7-301.2	Y		All Phase I Systems Shall Meet the Emission Limitations of the Applicable CARB Certification	CARB EO G-70-160	P/E	CARB Certification Procedures
Organic Com-pounds	BAAQMD 8-7-301.6	Y		All Phase I Equipment (except components with allowable leak rates) shall be leak free (≤3 drops/minute) and vapor tight	CARB EO G-70-160, paragraph 19 and BAAQMD 8-7-301.13 and 8-7-407 and BAAQMD Condition # 16516	P/A	Annual Check for Vapor Tightness and Proper Operation of Vapor Recovery System
Organic Com-pounds	BAAQMD 8-7-302.5	Y		All Phase II Equipment (except components with allowable leak rates or at the nozzle/fill-pipe interface) Shall Be: leak free (≤3 drops/minute) and vapor tight	CARB EO G-70-160, paragraph 19 and BAAQMD 8-7-301.13 and 8-7-407 and BAAQMD Condition # 16516	P/A	Annual Check for Vapor Tightness and Proper Operation of Vapor Recovery System

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – G
Applicable Limits and Compliance Monitoring Requirements
S-55 NON-RETAIL GASOLINE DISPENSING FACILITY # 8573

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Organic Com-pounds	SIP 8-5-303.2	Y		Tank Pressure Vacuum Valve Shall Be: Gas Tight or ≤ 500 ppmv (expressed as methane) above background for PRVs (as defined in SIP 8-5-206)	SIP 8-5-403 and 8-5-503	P/E	Semi-Annual Inspection with Portable Hydro-carbon Detector
Organic Com-pounds	CARB EO G-70-160, paragraph 10	N		Any Emergency Vent Shall Be: Leak Free	CARB EO G-70-160, paragraph 19 and BAAQMD 8-7-301.13 and 8-7-407 and BAAQMD Condition # 16516	P/A	Annual Check for Vapor Tightness and Proper Operation of Vapor Recovery System
Defective Com-ponent Repair/ Replace-ment Time Limit	BAAQMD 8-7-302.4	Y		≤ 7 days	BAAQMD 8-7-503.2	P/E	Records
Liquid Removal Rate	BAAQMD 8-7-302.8	Y		≥ 5 ml per gallon dispensed, when dispensing rate > 5 gallons/minute	CARB EO G-70-17-AD	P/E	CARB Certification Procedures
Liquid Retain from Nozzles	BAAQMD 8-7-302.12	Y		≤ 100 ml per 1000 gallons dispensed	CARB EO G-70-17-AD	P/E	CARB Certification Procedures
Nozzle Spitting	BAAQMD 8-7-302.13	Y		≤ 1.0 ml per nozzle per test	CARB EO G-70-17-AD	P/E	CARB Certification Procedures

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – G
Applicable Limits and Compliance Monitoring Requirements
S-55 NON-RETAIL GASOLINE DISPENSING FACILITY # 8573

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Pressure-Vacuum Valve Settings	BAAQMD 8-7-316 and CARB EO G-70-160, paragraph 14	Y		Pressure Setting: $\geq$ 2.5 inches of water, gauge	CARB EO G-70-160	P/E	CARB Certification Procedures
Pressure-Vacuum Valve Settings	SIP 8-5-303.1	Y		Pressure Setting: $\geq$ 10% of maximum working pressure or $\geq$ 0.5 psig	SIP 8-5-403 and CARB EO G-70-160	P/E	Semi-Annual Inspection and CARB Certification Procedures
Dispens-ing Rate Limit	CARB EO G-70-17-AD, paragraph 11	N		$\leq$ 10 gallons per minute	CARB EO G-70-17-AD	P/E	CARB Certification Procedures
Discon-nection Liquid Leaks	CARB EO G-70-160, paragraph 12	N		$\leq$ 10 ml per disconnect, averaged over 3 disconnect operations	CARB EO G-70-160, paragraph 19 and BAAQMD 8-7-301.13 and 8-7-407 and BAAQMD Condition # 16516	P/A	Annual Check for Vapor Tightness and Proper Operation of Vapor Recovery System

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – H
Applicable Limits and Compliance Monitoring Requirements
S-56 PORTABLE HORIZONTAL GRINDER

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD 6-1-301 and SIP 6-301	Y		≤ Ringelmann 1.0 for 3 minutes in any hour	CARB PERP # 117378, Parts 20 and 21	P/E	Observation of Sources in Operation and Use of Water Sprays to Prevent Visible Emissions
Opacity	CARB PERP # 117378, Parts 13 and 15	N		≤ Ringelmann 1.0 for 3 minutes in any hour and ≤ 20% Opacity	CARB PERP # 117378, Parts 20 and 21	P/E	Observation of Sources in Operation and Use of Water Sprays to Prevent Visible Emissions
FP	BAAQMD 6-1-311 and SIP 6-311	Y		$E = 0.026(P)^{0.67}$ where: E = Allowable Emission Rate (lb/hr); and P = Process Weight Rate (lb/hr) Maximum Allowable Emission Rate = 40 lb/hr For P >57,320 lb/hr	None	N	NA
PM10	CARB PERP # 117378, Part 14	N		≤ 82 pounds per day	CARB PERP # 117378, Parts 17 and 22	P/D	Throughput Records and Emission Calculations
PM10	CARB PERP # 117378, Part 16	N		≤ 10 tons per year	CARB PERP # 117378, Parts 17 and 22	P/D	Throughput Records and Emission Calculations
Wood Waste Through-put	CARB PERP # 117378, Part 17	N		≤ 820 tons per day	CARB PERP # 117378, Parts 17 and 22	P/D	Throughput Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – H
Applicable Limits and Compliance Monitoring Requirements
S-56 PORTABLE HORIZONTAL GRINDER

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Wood Waste Through-put	CARB PERP # 117378, Part 18	N		$\leq$ 200,000 tons per year	CARB PERP # 117378, Parts 17 and 22	P/D	Throughput Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – I
Applicable Limits and Compliance Monitoring Requirements
S-58 AERATED LEACHATE POND

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Leachate Through-put	BAAQMD Condition # 23052, Part 1	Y		$\leq$ 39.42 million gallons per 12-month period	BAAQMD Condition # 23052, Part 5	P/M	Calculations and Records
Organic Com-pounds in Leachate	BAAQMD Condition # 23052, Part 2	Y		Average Concentration: $\leq$ 500 ppbw of POC	BAAQMD Condition # 23052, Part 4	P/A	Analysis of Leachate Influent, Calculations, and Records
Organic Com-pounds in Leachate	BAAQMD Condition # 23052, Part 3	N		Average Concentration: $\leq$ 19 ppbw of benzene, and $\leq$ 48 ppbw of 1,4-dichlorobenzene, and $\leq$ 7 ppbw of vinyl chloride	BAAQMD Condition # 23052, Part 4	P/A	Analysis of Leachate Influent, Calculations, and Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – J
Applicable Limits and Compliance Monitoring Requirements
S-63 DRY WASTE MATERIALS RECOVERY FACILITY; AND A-63 WATER SPRAYS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD 6-1-301, SIP 6-301, and BAAQMD Condition # 25260, Part 5	Y	Upon Start-Up of S-63	< Ringelmann 1.0 for 3 minutes in any hour	BAAQMD Condition # 25260, Part 5	P/E	Observation of Sources in Operation
FP	BAAQMD 6-1-311 and SIP 6-311	Y	Upon Start-Up of S-63	$E = 0.026(P)^{0.67}$ where: E = Allowable Emission Rate (lb/hr); and P = Process Weight Rate (lb/hr) Maximum Allowable Emission Rate = 40 lb/hr For P >57,320 lb/hr	None	N	NA
Through-put	BAAQMD Condition # 25260, Part 1	Y	Upon Start-Up of S-63	Total Waste Materials Processed at S-63: $\leq$ 400 tons per day and $\leq$ 124,800 tons per 12-month period	BAAQMD Condition # 25260, Part 6a-c	P/D	Records
Through-put	BAAQMD Condition # 25260, Part 2a	Y	Upon Start-Up of S-63	Waste Materials Containing PCB: $\leq$ 2.4E-4 ppmw of PCB or $\leq$ 4,800 tons per 12-month period	BAAQMD Condition # 25260, Part 6d	P/D	Records
Through-put	BAAQMD Condition # 25260, Part 2b	Y	Upon Start-Up of S-63	Waste Materials Containing Hexavalent Chromium: $\leq$ 5.5E-1 ppmw of Cr(VI) or $\leq$ 33,000 tons per 12-month period	BAAQMD Condition # 25260, Part 6d	P/D	Records

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII – J
Applicable Limits and Compliance Monitoring Requirements
S-63 DRY WASTE MATERIALS RECOVERY FACILITY; AND A-63 WATER SPRAYS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Through-put	BAAQMD Condition # 25260, Part 2c	Y	Upon Start-Up of S-63	Waste Materials Containing Crystalline Silica: ≤ 8.5% by weight of crystalline silica or ≤ 10,600 tons per 12-month period	BAAQMD Condition # 25260, Part 6d	P/D	Records

VIII. TEST METHODS

The test methods associated with the emission limit of a District regulation are generally found in Section 600 et seq. of the regulation. The following table indicates only the test methods associated with the emission limits included in Section VII, Applicable 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 Reference Method 9, Visual Determination of the Opacity of Emissions from Stationary Sources
BAAQMD 6-1-303.1 and SIP 6-303.1	Ringelmann No. 2 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions; or US EPA Reference 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, Particulates Sampling, or For combustion equipment: US EPA Reference Method 5, Determination of Particulate Matter Emissions from Stationary Sources
BAAQMD 6-1-311 and SIP 6-311	Process Weight Rate Based Emissions Limits	Manual of Procedures, Volume IV, ST-15, Particulates Sampling, or US EPA Reference Method 5, Determination of Particulate Matter Emissions from Stationary Sources
BAAQMD 8-2-301 and SIP 8-2-301	Total Organic Compound (TOC) Mass and Concentration Limitations for Miscellaneous Operations	For Operations Other Than Aeration of VOC Laden Soil at Redwood Landfill: Manual of Procedures, Volume IV, ST-7, Organic Compounds; or US EPA Reference Method 25, Determination of Total Gaseous Nonmethane Organic Emissions as Carbon, or US EPA Reference Method 25A, Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer For Aeration of VOC Laden Soil at Redwood Landfill: BAAQMD Regulation 8-40-604 measurement procedures, and US EPA Reference Method 21, Determination of Volatile Organic Compound Leaks (or any method determined to be equivalent by the US EPA and approved by the APCO)

VIII. Test Methods

Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
SIP 8-5-303.2	Gas Tight Requirement for PRV	US EPA Reference Method 21, Determination of Volatile Organic Compound Leaks
BAAQMD 8-7-301.6	Vapor Tightness Requirement	Manual of Procedures, Volume IV, ST-38, Gasoline Dispensing Facility Static Pressure Integrity Test Aboveground Vaulted Tanks or ARB Test Method TP 201.3B Determination of Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities with Above-Ground Storage Tanks
BAAQMD 8-7-302.5	Vapor Tightness Requirement	Manual of Procedures, Volume IV, ST-38, Gasoline Dispensing Facility Static Pressure Integrity Test Aboveground Vaulted Tanks or ARB Test Method TP 201.3B Determination of Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities with Above-Ground Storage Tanks
BAAQMD 8-7-302.8	Liquid Removal Rate	Manual of Procedures, Volume IV, ST-37, Gasoline Dispensing Facility Liquid Removal Devices or ARB Test Method TP-201.6 Determination of Liquid Removal of Vapor Recovery Systems of Dispensing Facilities
BAAQMD 8-7-302.12	Liquid Retain from Nozzles	Manual of Procedures, Volume IV, ST-41, Gasoline Liquid Retention in Nozzles and Hoses (this method has not been approved yet)
BAAQMD 8-7-302.13	Nozzle Spitting	Manual of Procedures, Volume IV, ST-41, Gasoline Liquid Retention in Nozzles and Hoses (this method has not been approved yet)
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 Emission Limits for Flares	Manual of Procedures, Volume IV, 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
BAAQMD 8-34-301.4	NMOC Emission Limits for Other Emission Control Systems	Manual of Procedures, Volume IV, 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
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

VIII. Test Methods

Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD 8-34-305.2	Temperature Limit for Gas at Wellheads	APCO Approved Device
BAAQMD 8-34-305.3	Nitrogen Concentration in 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 Concentration in 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
BAAQMD 8-40-116.2	Organic Content Limit for Small Volume Exemption	BAAQMD 8-40-601 and US EPA Reference Methods 8015B and 8021B
BAAQMD 8-40-301	Limits on Uncontrolled Aeration of Contaminated Soil	BAAQMD 8-40-601 and US EPA Reference Methods 8015B and 8021B; or US EPA Reference Method 21
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

VIII. Test Methods

Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
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
40 CFR 60.758 (c)(1)(i)	Flare Combustion Zone Temperature Limit	Temperature Monitor and continuous recorder meeting the requirements of 40 CFR Part 60.756(b)(1)
CCR, Title 13, Section 2281 (a)(2 and 5)	Liquid Fuel Sulfur Content Limit	ASTM D2622-94 or CARB Approved Equivalent
BAAQMD Condition # 13123, Part 5	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions; or US EPA Reference Method 9, Visual Determination of the Opacity of Emissions from Stationary Sources
BAAQMD Condition # 16515	Static Pressure Test requirement for Aboveground Gasoline Storage Tanks	Manual of Procedures, Volume IV, ST-38, Gasoline Dispensing Facility Static Pressure Integrity Test Aboveground Vaulted Tanks
BAAQMD Condition # 19865, Part 3	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions; or US EPA Reference Method 9, Visual Determination of the Opacity of Emissions from Stationary Sources
BAAQMD Condition # 19866, Part 3	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions; or US EPA Reference Method 9, Visual Determination of the Opacity of Emissions from Stationary Sources

VIII. Test Methods

Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD Condition # 19867, Part 2	POC Emissions Limits	POC Emissions shall be calculated using data collected pursuant to BAAQMD Condition # 19867, Parts 5, 20, and 30, the US EPA LandGEM Program, and APCO approved input parameters, gas capture rates, and emission rates.
BAAQMD Condition # 19867, Part 3	PM10 Emission Limits	PM10 Emissions shall be calculated using data collected pursuant to BAAQMD Condition # 19867, Parts 3-11, and the calculation procedures identified in AP-42 Chapters 13.2.1 (January 2011) and 13.2.2 (November 2006).
BAAQMD Condition # 19867, Parts 6 and 7	Mean Vehicle Fleet Weight Limits	Calculation procedures identified in AP-42 Chapters 13.2.1 (January 2011) and 13.2.2 (November 2006).
BAAQMD Condition # 19867, Parts 8 and 9	Vehicle Miles Traveled (VMT) Limits	VMT for each applicable road segment shall be calculated based on data collected pursuant to BAAQMD Condition # 19867, Part 10, site maps, and travel routes.
BAAQMD Condition # 19867, Part 11	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions; or US EPA Reference Method 9, Visual Determination of the Opacity of Emissions from Stationary Sources
BAAQMD Condition # 19867, Part 13	Volatile Organic Compound (VOC) Concentration in Soils	BAAQMD 8-40-601 and US EPA Reference Methods 8015B, 8021B, or any method determined to be equivalent by the US EPA and approved by the APCO; or US EPA Reference Method 21
BAAQMD Condition # 19867, Part 14a	Daily Total Carbon Emission Limit for VOC Laden Soil	VOC Content as determined by US EPA Reference Methods 8015B or 8021B (or any method determined to be equivalent by the US EPA and approved by the APCO), and converted to Total Carbon as defined in BAAQMD Regulation 8-2-202. Total Carbon Emissions determined by APCO approved equation described in BAAQMD Condition #19867, Part 14a.
BAAQMD Condition # 19867, Part 14b	Surface VOC Concentration for VOC Laden Soil	BAAQMD Regulation 8-40-604 measurement procedures and US EPA Reference Method 21 (or any method determined to be equivalent by the US EPA and approved by the APCO)

VIII. Test Methods

Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD Condition # 19867, Part 14c	Annual Emission Limit for VOC Laden Soil	VOC Content as determined by US EPA Reference Methods 8015B or 8021B (or any method determined to be equivalent by the US EPA and approved by the APCO), and emissions determined by APCO approved equation described in BAAQMD Condition #19867, Part 14a.
BAAQMD Condition # 19867, Part 15	VOC Concentration in Soils	BAAQMD 8-40-601 and US EPA Reference Methods 8015B, 8021B, or any method determined to be equivalent by the US EPA and approved by the APCO; or US EPA Reference Method 21
BAAQMD Condition # 19867, Part 18a	Total Concentration of Non-Methane Organic Compounds (NMOC) in Landfill Gas	US EPA Reference Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography; or Method 25C, Determination of Nonmethane Organic Compounds (NMOC) in MSW Landfill Gases
BAAQMD Condition # 19867, Part 18b	Concentrations of Toxic Air Contaminants (TACs) in Landfill Gas	US EPA Reference Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography
BAAQMD Condition # 19867, Part 18c	Concentration of Total Reduced Sulfur (TRS) Compounds in Landfill Gas (Peak and Annual Average Limits)	Draeger tube used in accordance with manufacturer's recommendations and calculation procedures described in Condition # 19867, Part 31b; and Manual of Procedures, Volume III, Method 5 Determination of Total Mercaptans in Effluents and Method 25 Determination of Hydrogen Sulfide in Effluents, or Method 44 Determination of Reduced Sulfur Gases and Sulfur Dioxide in Effluent Samples by Gas Chromatographic Methods
BAAQMD Condition # 19867, Part 20	Landfill Gas Throughput Limit for Flares	APCO Approved Gas Flow Meter and Recorder
BAAQMD Condition # 19867, Part 22	Flare Combustion Zone Temperature Limits	APCO Approved Device

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Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD Condition # 19867, Part 23	NMOC Emission Limits for Flares	Manual of Procedures, Volume IV, ST-14, Oxygen, Continuous Sampling; and Manual of Procedures, Volume IV, ST-7, Organic Compounds; or US EPA Reference Method 18, 25, 25A, or 25C
BAAQMD Condition # 19867, Part 25	NOx Emission Limit for Flares	Manual of Procedure, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling; and Manual of Procedure, Volume IV, ST-14, Oxygen, Continuous Sampling
BAAQMD Condition # 19867, Part 26	CO Emission Limit for Flares	Manual of Procedure, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling; and Manual of Procedure, Volume IV, ST-14, Oxygen, Continuous Sampling
BAAQMD Condition # 19867, Part 30	Annual Compliance Demonstration Tests	Manual of Procedures, Volume IV, ST-17, Stack Gas Velocity and Volumetric Flow Rate; ST-23 Water Vapor; ST-14, Oxygen, Continuous Sampling; ST-13A, Oxides of Nitrogen, Continuous Sampling; ST-6, Carbon Monoxide, Continuous Sampling; and Manual of Procedures, Volume IV, ST-7, Organic Compounds or US EPA Reference Methods 18, 25, 25A, or 25C
BAAQMD Condition # 19867, Part 31	Landfill Gas Analyses	Manual of Procedures, Volume III, Method 5 Determination of Total Mercaptans in Effluents and Method 25 Determination of Hydrogen Sulfide in Effluents, or Method 44 Determination of Reduced Sulfur Gases and Sulfur Dioxide in Effluent Samples by Gas Chromatographic Methods
BAAQMD Condition # 19867, Part 33	Fence Line Hydrogen Sulfide Limits	BAAQMD approved portable H_2S analyzer calibrated and used in accordance with manufacturer's recommendations at BAAQMD approved monitoring locations.
BAAQMD Condition # 23052, Part 2	POC Concentration Limit for Leachate Influent	Regional Water Quality Control Board Methods SW846 8260B; or Manual of Procedures, Volume III, Lab Method 33; AND Calculation Procedures in BAAQMD Condition # 23052, Part 4
BAAQMD Condition # 23052, Part 3	Individual Organic Compound Limits for Leachate Influent	Regional Water Quality Control Board Methods SW846 8260B; AND Calculation Procedures in BAAQMD Condition # 23052, Part 4

VIII. Test Methods

Table VIII
Test Methods

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD Condition # 25260, Part 2	PCB, Hexavalent Chromium, and Crystalline Silica Concentration Limits for Wastes Containing These Materials	APCO Approved Sampling and Analysis Procedures that Follow Standard EPA or Cal/EPA Sampling, Analysis, and Calculation Procedures for Waste Characterization of Solid Waste Materials Containing PCB, Hexavalent Chromium, or Crystalline Silica.
CARB EO G-70-160, paragraph 10	Leak Free Emergency Vent	Manual of Procedures, Volume IV, ST-38, Gasoline Dispensing Facility Static Pressure Integrity Test Aboveground Vaulted Tanks or ARB Test Method TP 201.3B Determination of Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities with Above-Ground Storage Tanks
CARB EO G-70-160, paragraph 12	Disconnection Liquid Leaks for Phase I Systems	BAAQMD Enforcement Division, Policies and Procedures, Regulation 8, Rule 33, Bulk Gasoline Distribution Facilities and Gasoline Delivery Vehicles Guidelines, Section 5.B.1.
CARB PERP # 117378, Parts 12, 13, and 15	Ringelmann No. 1 and Opacity Limits	Manual of Procedures, Volume I, Evaluation of Visible Emissions; or EPA Reference Method 9
CARB PERP # 117378, Parts 14, 16, and 17	PM10 Emission Limits	Throughput Records and Calculation Procedures in CARB PERP # 117378, Parts 17 and 22.

IX. PERMIT SHIELD

A. SUBSUMED REQUIREMENTS

Pursuant to District Regulations 2-6-233.2 and 2-6-409.12, as of the date this permit is issued, the federally enforceable monitoring, recordkeeping, and reporting requirements cited in the following table for the source or group of sources identified at the top of the table are subsumed by the monitoring, recordkeeping, and reporting for more stringent requirements or by a "hybrid" monitoring scheme. The District has determined that compliance with the requirements listed below and elsewhere in this permit will assure compliance with the substantive requirements of the subsumed monitoring requirements. Enforcement actions and litigation may not be initiated against the source or group of sources covered by this shield based on the subsumed monitoring requirements cited.

Table IX-A
S-42 SOIL AND COVER MATERIAL STOCKPILES AND
S-76 REDWOOD LANDFILL – WASTE AND COVER MATERIAL DUMPING

Subsumed Requirement Citation	Title or Description	Streamlined Requirements	Title or Description
8-2-601	**Determination of Compliance (for organic compound emissions as total carbon)**	**8-40-604**	**Measurement of Organic Concentration (to classify soil as "contaminated" or "not contaminated")**

The Regulation 8, Rule 2 total carbon test procedure is subsumed by the Regulation 8, Rule 40 VOC test procedure for the Redwood Landfill – Waste and Cover Material Dumping (S-76) and for the Soil and Cover Material Stockpiles (S-42), because testing performed pursuant to Regulation 8-40-604 will rule out the need to test in accordance with Regulation 8-2-601.

Regulation 8, Rule 2 "Miscellaneous Operations" is only applicable to sources of precursor organic compounds that are not otherwise limited by Regulation 8 or Regulation 10 rules. In the case of an active landfill, the storage, handling, reuse (such as for cover material), and disposal of soil that contains volatile organic compounds (VOC) results in the transfer of some of the VOCs from the soil into the atmosphere. This process is called aeration. Soil which has an organic content exceeding 50 ppmw or that registers an organic concentration greater than 50 ppmv (expressed as methane, C1) at the soil surface is defined as "contaminated" soil in Regulation 8-40-205. VOC-laden soil is soil that contains some VOCs but that has less VOCs than the contaminated soil thresholds above. The aeration of contaminated

IX. Permit Shield

soil is subject to Regulation 8, Rule 40. However, the aeration of the low concentration VOC-laden soils is subject to Regulation 8, Rule 2.

Regulation 8-2-301 limits organic compound emissions (expressed as total carbon) from an operation to 15 pounds per day, if the emission from the operation has an organic compound concentration greater than 300 ppmv (expressed as total carbon, dry basis). Thus, an operator may verify compliance with Regulation 8-2-301 by either demonstrating compliance with the 15 pound/day total carbon limit or by demonstrating compliance with the 300 ppmv total carbon concentration limit. Condition # 19867, Part 14 identifies these two compliance options. Part 14a specifies emission limits, acceptance limits, emission calculation procedures, and record keeping requirements that assure compliance with the 15 pound/day total carbon emission limit. Part 14b discusses the alternative measures that may be used to verify compliance with the 300 ppmv total carbon concentration limit.

If the operator chooses to demonstrate compliance with Regulation 8-2-301 using Condition #19867 Part 14b, the operator will be required to use the Regulation 8-40-604 test procedures to verify that the soil is not contaminated (i.e., does not contain more than 50 ppmw of VOC or will not emit more than 50 ppmv of VOC from the surface of the soil). Since soil found not to be contaminated using the procedures of Regulation 8-40-604 will have a surface VOC concentration of less than 50 ppmv (expressed as methane, C1) it can reasonably be assumed that the concentration that occurs in the atmosphere during the aeration of VOC-laden soil will also be less than 300 ppmv (total carbon, dry basis) as determined by the procedures of Regulation 8-2-601. Since this VOC-laden soil aeration operation will comply with the total carbon concentration limit (< 300 ppmv), it will also comply with Regulation 8-2-301.

In summary, measurements conducted under Regulation 8-40-604 that show surface VOC concentrations are less than 50 ppmv (expressed as methane, C1) are conclusive to demonstrate that any aeration of such soil will comply with Regulation 8-2-301.

X. REVISION HISTORY

Title V Permit Issuance (Application 17363): November 10, 2003

Significant Revision (Application 8501): November 10, 2004

- In Table II-B, change the capacity of the A-50 Flare from 75 MM BTU/hour to 120 MM BTU/hour.
- Add several missing sections of 40 CFR Part 60, Subpart WWW (flare operating and monitoring requirements) to Table IV-B.
- Delete future effective dates that have passed from Tables IV-B, IV-M, VII-B, VII-M and Condition # 19867, Part 22.
- Delete unnecessary requirements of Condition # 19867 (Parts 27 and 28) and delete references to these parts in Tables IV-B, VII-B, and VIII.
- Correct errors in Tables IV-B and IV-M and in Condition # 19867, Parts 16 and 30.
- Revise landfill gas throughput limits for A-50 in Condition # 19867, Part 20 and Table VII-B.
- Revise the NMOC emission limit for A-50 in Condition # 19867, Part 23 and Table VII-B.
- Revise the non-federally enforceable TAC destruction efficiency limit for A-50 in Condition # 19867, Part 24 and Table VII-B.

Minor Revision (Applications 6943 and 9565): November 10, 2004

- In Table II-A and Section VI, Condition # 19867, Part 17a, update collection system description to reflect gas collection system components that are operating as of August 1, 2004.
- In Section VI, Condition # 19867, Part 17b, add the description of the collection system component changes that have been authorized pursuant to Application # 9565.

Significant Revision (Applications 10873 and 10874): July 27, 2005

- In Condition # 19867, Part 18a and Table VII-B, replace the current TRS content limit for landfill gas with a new peak TRS limit and a higher annual average TRS content limit.
- In Condition # 19867, Part 31, add a new subpart b that describes the Draeger tube hydrogen sulfide analysis requirements, testing frequency, TRS calculation procedures, and record keeping requirements.
- Add the weekly Draeger tube monitoring requirements and TRS calculation procedures to Table VII-B and Table VIII.

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Administrative Amendment (Application 11948): July 27, 2005

- On the Title Page, change Responsible Official from James Devin to Ramin Khany.
- In Table III, correct the federal enforceability column for several citations and add two missing citations: SIP Regulation 11, Rule 1 and 40 CFR Part 61, Subpart A.
- In Section XII, update the web address for SIP provisions.

Minor Revision (Application 11948): December 29, 2005

- Add the new A-51 Landfill Gas Flare to Tables II-B, IV-B, VII-B, and VIII, and to Condition # 19867, Parts 16, 19, 20, 22-26, 29, and 30.
- Clarify allowable control system operating scenarios by combining Condition # 19867, Parts 16 and 21 into Part 16 and by deleting Part 21. Delete Part 21 from Table IV-B and update related citations in Table VII-B.
- In Condition # 19867, Parts 18 and 31, clarify reporting requirements and condition basis associated with the landfill gas sulfur content limits and update related citations and basis in Tables IV-B, VII-B, and VIII.
- Update regulatory amendment dates in Tables IV-B and IV-M.
- Add two terms to the Glossary in Section XI.

Minor Revision (Applications 12966 and 13026): April 18, 2006

- Correct the Facility Contact on the title page.
- Delete the S-40 Diesel Engine from Table II-A, and delete the associated requirements, limits, and conditions that were listed in Table IV-E, Table VII-E, and Condition # 19864. Renumber all subsequent tables in Sections IV and VII.
- Remove the Diamond Z Tub Grinder from S-41 in Table II-A, and delete the associated A-41 Water Sprays from Table II-B. Delete the requirements associated with the tub grinder and water sprays from Tables IV-E and VII-E and Condition # 19865 Parts 3-5.
- Increase the throughput limits for the S-41 Temporary Stockpiles in Tables II-A and VII-E and Condition # 19865 Part 1. Clarify the water spray requirements for S-41 in Tables II-B, IV-E, and VII-E and in Condition # 19865 Part 3.
- Add the A-18 Water Sprays to the titles for Tables IV-C, IV-E, IV-F, VII-B, VII-C, VII-E, and VII-F and to the equipment list for Conditions # 16066, # 19865, and # 19866.

X. Revision History

- Clarify the monitoring and record keeping procedures for VOC laden soil aeration operations in Condition # 19867 Part 14, Table VII-B, and Table VIII.
- Update the landfill gas collection system description in Condition # 19867 Part 17a and Table II-A and authorize additional collection system modifications in Part 17b.
- Correct the minimum combustion zone temperature limit for A-51 in Condition # 19867 Part 22b, Table II-B, and Table VII-B.

Administrative Revision (Applications 14140 and 14420): July 13, 2006

- Remove the S-50 Leachate Vaporator from Table II-A.
- Delete Tables IV-L and VII-L and renumber subsequent tables.
- Delete BAAQMD Condition # 19609.
- Delete references to the S-50 Leachate Vaporator from BAAQMD Condition # 19867, Parts 16 and 19 and from Table VIII.

Minor Revision (Applications 14140 and 14420): September 20, 2006

- Add S-56 Portable Horizontal Grinder and S-58 Aerated Leachate Pond to Table II.
- Add Tables IV-M and VII-M for S-56 and Tables IV-N and VII-N for S-58.
- Add BAAQMD Condition # 22940 and the conditions from CARB PERP # 117378 for S-56.
- Add BAAQMD Condition # 23052 for S-58.
- Add test method reference for S-56 and S-58 in Table VIII.
- Add the term PERP to the Section XI Glossary.

Administrative Revision (Application 11370): August 28, 2007

- Correct the Responsible Official and Facility Contact information for this site on the title page.
- Remove the S-25 Yard and Green Waste Stockpiles and the S-45 Pumpmaster Engine from this permit by revising Tables II-A and II-B; by deleting Conditions # 16066 and # 17842; and by deleting Tables IV-C, IV-G, VII-C, and VII-G.
- Update the lettering sequence for subsequent tables in Sections IV and VII.

X. Revision History

Minor Revision (Application 11370): October 24, 2007

- Correct the landfill gas collection system component lists for S-5 Redwood Landfill in Table II-A and in Condition # 19867, Part 17.
- Revise the landfill gas throughput limits for the A-50 and A-51 Landfill Gas Flares in Condition # 19867, Part 20 and in Table VII-B.
- Update the bases for Condition # 19867, Parts 22 and 24 due to the adoption of Regulation 2, Rule 5, and modify Table IV-B accordingly.
- Correct the minimum combustion zone temperature limit for A-51 in Condition # 19867, Part 22 and in Table VII-B.
- Eliminate obsolete text from Condition # 19867, Part 24
- Alter the CO emission limit for A-51 in Condition # 19867, Part 26 and in Table VII-B.

Renewal (Application 17987): April 5, 2012

- Add and revise text in Section I, III, IV, VII, and VIII to conform to current standard text.
- Incorporate source number changes into this permit that were implemented pursuant to the BAAQMD annual permit renewal process. The active landfill, Source S-5, was split into three sources (S-5, S-76, and S-77) that represent different processes and activities that occur at active landfills. The new source numbers were added to Tables II-A, IV-B, VII-B, IX-A and Condition # 19867. The composting operations (S-28, S-34, S-35, S-37, and S-38) were all combined under a single source number: S-34 Compost Facility Operations. These changes are reflected in Tables II-A, IV-C, VII-C, and Condition # 13123.
- Remove sources that have been shut down from Table II-A (S-46, S-47, and S-48), delete the associated tables (Tables IV-F, VII-F, IV-G, VII-G, IV-H, and VII-H), and delete the associated conditions (Condition #17843, #17844, and #17845).
- Renumber Table IV- I-L and Tables VII- I-L as Tables IV- F-I and Tables VII- F-I.
- Add an existing portable diesel engine and two new portable diesel engines and the associated diesel PM filters to Table II-C.
- In Table II-B and Condition #19867, replace of the A-50 Landfill Gas Flare with the new A-60 Landfill Gas Flare.
- Correct and update regulatory references and amendment dates throughout the permit.

X. Revision History

- Add several missing BAAQMD and federal regulations to Table III, and add several new California regulations to Table III.
- Incorporate changes to SIP Regulation 6 and BAAQMD Regulation 6, Rule 1 in Tables IV- B-F, VII- B-F, IV-H, VII-H, and VIII and in Conditions #13123, #19865, #19866, and #19867.
- Throughout the permit, replace condition bases citing the Toxic Risk Management Policy (TRMP) with the appropriate regulatory citation from BAAQMD Regulation 2, Rule 5, which was adopted in 2005 and amended in 2010.
- For the Redwood Landfill sources (S-5, S-76, and S-77) and associated flares (A-51 and A-60), update tables (Tables IV-B, VII-B, and VIII) and permit conditions (Condition #19867) to incorporate changes made pursuant to new source review (NSR) applications: for flare replacements (NSR Applications #16608 and #19098), for gas collection system changes (NSR Application # 21623), and for an expansion of the landfill (NSR Application # 20607).
- For the S-42 Soil and Cover Material Stockpiles, add the missing Regulation 8, Rule 2 requirements to Tables IV-E and VII-E. Regulation 8, Rule 2 applies to the aeration of VOC-laden soil that may occur at S-42.
- For the S-49 Diesel Engine for Emergency Back-Up Generator, add the exemption in BAAQMD Regulation 8-1-110.2 to Table IV-F to clarify that this diesel engine is exempt from other Regulation 8 requirements. In Tables IV-F and VII-F, add the new and future requirements for emergency engines identified in the 2007 amendments to BAAQMD Regulation 9, Rule 8. Also in Tables IV-F, VII-F, and VIII, add the applicable NESHAP requirements for this stationary RICE engine (40 CFR, Part 63, Subpart ZZZZ) and the applicable ATCM requirements for this stationary emergency engine (CCC, Title 17, Section 931115). Replace Condition #19613 with Condition #22820.
- For the S-55 Non-Retail Gasoline Dispensing Facility # 8573, incorporate the 2006 amendments to Regulation 8, Rule 5 into Tables IV-G, VII-G, and VIII. These amendments exempt the above-ground gasoline storage tank associated with S-55 from BAAQMD Regulation 8, Rule 5; however, this tank is still subject to SIP Regulation 8, Rule 5. Under Condition #16516 for S-55, text was added to clarify source testing and reporting requirements.
- Add symbols to Tables VII-B through VII-G to clarify limits.

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- For Table VIII, add missing test methods for existing requirements, add test methods for all new limits, and remove obsolete or unnecessary test methods.
- Clarify the applicability of the permit shield in Section IX. It applies to the aeration of VOC-laden soil, which may occur at S-76 or S-42 during the transfer, storage, or re-use of VOC-laden.
- Add this permit renewal to the Section X Revision History.
- Add terms to the Section XI Glossary.

Minor Revision (Application 22891): December 19, 2014

- Change the Responsible Official on the Title Page.
- In Section I-A, update the amendment dates for BAAQMD Regulation 2, Rules 1 and 4.
- Add S-63 to Table II-A, and add A-63 to Table II-B.
- In Table III, update the amendment dates for BAAQMD Regulation 2, Rule 1 and BAAQMD Regulation 5.
- Add Table IV-J, Condition # 25260, and Table VII-J, which all apply to S-63 and A-63, to Sections IV, VI, and VII of the permit.
- In Table VIII, add a test method related to Condition # 25260, Part 2.
- Add a description of this minor revision to Section X of the permit.

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

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

C3
An organic chemical compound with three carbon atoms, for example: propane

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C5
An organic chemical compound with five carbon atoms, for example: pentane

C6
An organic chemical compound with six carbon atoms, for example: hexane

C_6H_6
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. NOx concentration) in an exhaust stream.

CEQA
California Environmental Quality Act

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

CH4 or CH_4
Methane

XI. Glossary

CI
Compression Ignition

CIWMB
California Integrated Waste Management Board

CO
Carbon Monoxide

CO2 or CO_2
Carbon Dioxide

CO2e
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 (CO2e) emission rate.

CT
Combustion Zone Temperature

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

District
The Bay Area Air Quality Management District

E6, 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, 4.53E6 equals (4.53) x (106) = (4.53) x (10x10x10x10x10x10) = 4,530,000. Scientific notation is used to express large or small numbers without writing out long strings of zeros.

EG
Emission Guidelines

XI. Glossary

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 (MACT), 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

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 H_2S

XI. Glossary

Hydrogen Sulfide

H2SO4 or H_2SO_4
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

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^oF.

Long ton
2200 pounds

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

MAX or Max.

XI. Glossary

Maximum

XI. Glossary

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
Nitrogen

NA
Not Applicable

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)

XI. Glossary

NOx or NO_x
Oxides of nitrogen.

NO2 or NO_2
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 O_2
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, NOx, PM10, and SO2.

PERP
Portable Equipment Registration Program

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

XI. Glossary

PM10 or PM_{10}
Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

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

PV or P/V Valve or PRV
Pressure/Vacuum Relief Valve

RICE
Reciprocating Internal Combustion Engine

RMP
Risk Management Plan

RWQCB
Regional Water Quality Control Board

S
Sulfur

SCR
A "selective catalytic reduction" unit is an abatement device that reduces NOx concentrations in the exhaust stream of a combustion device. SCRs utilize a catalyst, which operates within a specific temperature range, and injected ammonia to promote the conversion of NOx 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 SO_2
Sulfur dioxide

XI. Glossary

SO3 or SO_3
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)

TBACT
Best Available Control Technology for Toxics

THC
Total Hydrocarbons (NMHC + Methane)

therm
100,000 British Thermal Units

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 (NMOC + Methane, Same as THC)

TPH
Total Petroleum Hydrocarbons

TRMP
Toxic Risk Management Policy

XI. Glossary

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 SO_2 that will be present in the combusted fuel gas, since sulfur compounds are converted to SO_2 by the combustion process.

TSP
Total Suspended Particulate

TVP
True Vapor Pressure

VOC
Volatile Organic Compounds

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
hp	=	horsepower

XI. Glossary

hr	=	hour
in	=	inches
kW	=	kilowatts
lb	=	pound
lbmol	=	pound-mole
m^2	=	square meter
m^3	=	cubic meters
min	=	minute
mm	=	millimeter
MM	=	million
MM BTU	=	million BTU
MMcf	=	million cubic feet
Mg	=	mega grams
M scf	=	one thousand 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
yd	=	yard
yd^3	=	cubic yards
yr	=	year