



Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Travis A. Voyles
Secretary of Natural and Historic Resources

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Director

DRAFT

Federal Operating Permit
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated, or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9VAC5-80-50 through 9VAC5-80-300, of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name: Rappahannock Regional Solid Waste Management Board
Facility Name: R-Board Sanitary Landfill
Facility Location: 489 Eskimo Hill Road
Stafford, Virginia 22554

Registration Number: 40946
Permit Number: NRO-40946

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act

Effective Date

Expiration Date

Jeffrey Hurst
Southwest Regional Director

Signature Date

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Facility Information – R-Board Sanitary Landfill

Permittee

Rappahannock Regional Solid Waste Management Board
473 Eskimo Hill Road
Stafford, Virginia 22554

Responsible Official

Mr. Phillip W. Hathcock
Director

Facility

R-Board Sanitary Landfill
489 Eskimo Hill Road
Stafford, Virginia 22554

Contact Person

Mr. Rick Markwardt
Landfill Superintendent
(540) 658-5279

County-Plant Identification Number: 51-179-00050

Facility Description: NAICS 562212 - The facility consists of a municipal solid waste (MSW) landfill (R-Board Sanitary Landfill), operated by the Rappahannock Regional Solid Waste Management Board for the municipalities of Stafford County and the City of Fredericksburg, Virginia, and two landfill gas-fired reciprocating internal combustion engines (RICE), operated by Ameresco Stafford LLC. The R-Board Sanitary Landfill and Ameresco are considered a single stationary source and together are a Title V major source of carbon monoxide (CO). The facility is located in an attainment area for all pollutants and is not a PSD major source. DEQ has registered the R-Board Sanitary Landfill under air facility registration number 40946, and Ameresco under air facility registration number 41050. Accordingly, DEQ also administers separate minor New Source Review (NSR) permits, as detailed later, for each of these entities.

The R-Board Sanitary Landfill opened in 1968. The initial waste disposal area is not lined and is referred to as “old area 74.” The newer disposal areas are lined with clay and composite liners and designated as cells A through G. Landfill gas (LFG) is collected from the interior of the landfill by a series of vertical extraction wells and horizontal trenches installed at various depths. The extraction wells or trenches are connected to header pipes that direct the LFG for destruction by a Perennial Energy, Inc. (PEI) model FL-1483 open flare rated at 2000 standard cubic feet per minute (scfm) or routed to a treatment system for subsequent sale/use as fuel to generate electricity at the co-located Ameresco Stafford LLC facility. The LFG Specialties model CF62114 open flare, rated at 800 scfm was permanently shut down in 2020. The R-Board Landfill also includes a tub grinder for grinding vegetative waste to produce mulch, a compost trommel used to separate materials by size for composting, and an emergency generator for

supplying electricity to the scale house when the primary power provider is down. The tub grinder is powered by a 760-brake horsepower (bhp) diesel engine. The compost trommel is powered by a 130 bhp diesel engine. The emergency generator is powered by 33 bhp propane-fired engine. Air pollutants expected from the landfill, open flare, tub grinder, compost trommel and emergency generator include volatile organic compounds (VOC), nonmethane organic compounds (NMOC), particulate matter (PM10 & PM2.5), carbon monoxide (CO), oxides of nitrogen (NO_x), sulfur dioxide (SO₂), total reduced sulfur (TRS), greenhouse gases (GHG), and hazardous air pollutants (HAP). The R-Board Sanitary Landfill currently operates under an NSR permit dated February 5, 2021, and Title V operating permit effective August 4, 2016.

Ameresco Stafford LLC County-Plant Identification Number: 51-179-00100

Facility Description: NAICS 221119 – Ameresco Stafford LLC operates a landfill gas to energy facility consisting of two GE Jenbacher model JGS 320 GS-LL engine-generator sets, each rated at 1,468 brake horsepower (bhp) and 1,060 electric kilowatts (kW), located at the R-Board Landfill. The engine-generator sets are fueled with LFG purchased from the R-Board Landfill to produce electricity for sale to the electric utility. Air pollutants expected from the engines include NO_x, SO₂, CO, VOC, PM10, and PM2.5. The Ameresco facility currently operates under an NSR permit issued June 20, 2007, as amended March 27, 2015.

Emission Units – R-Board Sanitary Landfill

Equipment to be operated at the R-Board Sanitary Landfill facility (DEQ air registration no. 40946) consists of:

| Emission Unit ID | Stack ID | Emission Unit Description | Size/Rated Capacity* | Pollution Control Device (PCD) Description | PCD ID | Pollutant Controlled | Applicable Permit Date |
|-------------------------|-----------------|--|--------------------------------|--|---------------|-----------------------------|-------------------------------|
| 001 | MSW Landfill | MSW Landfill Operations | 8.71 million megagrams (Mg) | See Flares below | GCCS | NMOC | 2/5/2021 NSR Permit |
| F002 | 002 | Open Flare, Perennial Energy, Inc., model FL-1483 | 2000 cfm | (Considered landfill NMOC emission control device) | -- | NMOC | 2/5/2021 NSR Permit |
| 005 | 005 | W.H.O. Tub Grinder model P12-56XSHD with Caterpillar diesel engine model 3412 | 100 tons/hr; 760 bhp engine | -- | -- | -- | 2/5/2021 NSR Permit |
| 006 | 006 | McCloskey model 512 compost trommel with Caterpillar diesel engine model 3054C | 130 bhp | -- | -- | -- | -- |
| EG-1 | EG-1 | Generac model G0067211 emergency generator with a propane-fired engine | 33 bhp | -- | -- | -- | -- |

*The Size/Rated capacity is provided for informational purposes only and is not an applicable requirement.

R-Board Sanitary Landfill Equipment Requirements – (Emission Unit ID# 001, F002, 005, 006, and EG-1)

Limitations and Monitoring

1. R-Board Sanitary Landfill Equipment Requirements - The MSW Landfill (Ref. No. 001) shall not accept more than 8.71 million megagrams (9.6 million tons) of municipal solid waste (MSW) for disposal at the landfill. An increase to this maximum amount of waste accepted by the landfill may require a new or amended permit. (9VAC5-80-110 and Condition 1 of 2/5/2021 Permit)
2. R-Board Sanitary Landfill Equipment Requirements - The permittee shall update the facility landfill gas (LFG) collection and control system design plan, which describes the management of LFG generated at the facility, including LFG generated from waste to be placed in each additional cell of the landfill (Ref. No. 001). The design plan shall be prepared by a professional engineer and shall conform to the specifications for an active collection system as specified in Condition 3 of this permit. The design plan shall include any proposed alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, record keeping or reporting provisions of this permit. (9VAC5-80-110, 40 CFR 63.1955(a), and Condition 2 of 2/5/2021 Permit)
3. R-Board Sanitary Landfill Equipment Requirements - The permittee shall design, install, operate, maintain, and monitor a collection and control system to control landfill gas emissions from the landfill (Ref. No. 001) as follows:
 - a. Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control system equipment. The maximum expected gas flow rate shall be calculated in accordance with 40 CFR 63.1960(a)(1).
 - b. Collect the gas from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:
 - i. 5 years or more if active; or
 - ii. 2 years or more if closed or at final grade;
 - c. Sufficient density of the gas collectors shall be demonstrated by designing the system in accordance with 40 CFR 63.1960(a)(2). Each well or design component shall be placed as specified in the approved design plan as provided in 40 CFR 63.1981(d). Each well must be installed no later than 60 days after the applicable date in Condition 3.b.
 - d. Operate the collection system with negative pressure at each wellhead except as provided in 40 CFR 63.1958(b)(1) and (3). The gauge pressure shall be monitored

monthly and corrective actions taken in accordance with 40 CFR 63.1960(a)(3)(i) and 63.1961(a)(1).

- e. Operate each interior wellhead in the collection system with a landfill gas temperature less than 62.8°C (145°F) except as provided in 40 CFR 63.1958(c). Each well shall be monitored for temperature and corrective actions shall be taken in accordance with 40 CFR 63.1960(a)(4) and 63.1961(a)(3)-(6). If a landfill gas temperature measured at either the wellhead or at any point in the well is greater than or equal to 76.7°C (170°F) and the carbon monoxide concentration measured, according to the procedures in 40 CFR 63.1961(a)(5)(vi) is greater than or equal to 1,000 ppmv the corrective action(s) for the wellhead temperature standard (62.8°C or 145°F) must be completed within 15 days. The 24-hour high temperature report shall be submitted in accordance with 40 CFR 63.1981(k).
- f. Nitrogen and/or oxygen content shall be monitored monthly in accordance with 40 CFR 63.1961(a)(2).
- g. Develop a landfill surface monitoring design plan and operate the collection system so that the methane concentration is less than 500 parts per million above background in accordance with 40 CFR 63.1958(d). Surface concentrations of methane shall be monitored on a quarterly basis and corrective actions taken in accordance with 40 CFR 63.1960(c) to demonstrate compliance with the surface methane operational standard in 40 CFR 63.1958(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring. Instrumentation must meet the requirements of 40 CFR 63.1960(d).
- h. Route the collected landfill gas to a treatment system that processes the collected gas for subsequent sale or use or route the collected landfill gas to the open flare system (Ref. No. F002). The treatment system shall be designed and operated in accordance with 40 CFR 63.1959(b)(2)(iii)(C) and (D). The open flare system shall be designed and operated in accordance with 40 CFR 63.1959(b)(2)(iii)(A). Performance tests shall be conducted for new or replacement flares in accordance with 40 CFR 63.7 and 40 CFR 63.1959(e) and (f).
- i. Operate the collection and control system in accordance with 40 CFR 63.1958(e) and (f) at all times.

The monitoring requirements of this condition apply at all times except as provided in 40 CFR 63.1961(h). If monitoring demonstrates that the operational requirements in Conditions 3.d, 3.e, or 3.g are not met, corrective action must be taken as specified in 40 CFR 63.1960(a)(3) and (5) or (c). If corrective actions are taken as specified in 40 CFR

63.1960, the monitored exceedance is not a violation of the operational requirements in this Condition.

(9VAC5-80-110, 9VAC5-40-5955, 9VAC5-40-5960, 9VAC5-40-5965, 40 CFR 63.1957(a), 40 CFR 63.1958, 40 CFR 63.1959(b)(2)(ii)(B)(1) – (4), (iii)(A), (iii)(C), and (iii)(D), 40 CFR 63.1960(a)-(d), and 40 CFR 63.1961(a), (f), and (h), and Conditions 3, 4, 6, 10, 23, 24, 26, 27, 29, 30, 31 of 2/5/2021 Permit)

4. R-Board Sanitary Landfill Equipment Requirements - The gas collection and control system installed to comply with Condition 3 shall have the following destruction efficiencies for the collected landfill gas:

VOC 99% or 0.017 lb/MMBtu (as propane)

NMOC 98% or 20 ppmvd as hexane at 3% oxygen

Compliance with this condition shall be demonstrated by operation of the open flare(s) in accordance with 40 CFR 60.18 and Condition 14.

(9VAC5-80-110, 40 CFR 63.1959(b)(2)(iii)(B), and Condition 5 of 2/5/2021 Permit)

5. R-Board Sanitary Landfill Equipment Requirements - Unless otherwise specified, dust emission controls shall include the following or equivalent as a minimum:
- a. Dust from grading, cell construction, waste compaction, application of daily cover, wood waste chipping operations, storage piles and traffic areas shall be controlled by wet suppression or equivalent (as approved by the DEQ) control measures.
 - b. All material being stockpiled shall be kept moist to control dust during storage and handling or covered to minimize emissions.
 - c. Dust from haul roads shall be controlled by wet suppression and the prompt removal of dried sediment resulting from soil erosion and dirt spilled or tracked onto paved surfaces within the landfill.
 - d. Reasonable precautions shall be taken to prevent deposition of dirt on public roads and subsequent dust emissions. Dirt spilled or tracked onto paved surfaces shall be promptly removed to prevent particulate matter from becoming airborne.
- (9VAC5-80-110 and Condition 7 of 2/5/2021 Permit)
6. R-Board Sanitary Landfill Equipment Requirements - The MSW landfill (Ref. No. 001) shall accept for disposal no more than 305,400 tons (277,600 Mg) of solid waste per year, excluding all nondegradable refuse and clean daily cover materials, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
- (9VAC5-80-110 and Condition 9 of 2/5/2021 Permit)

7. R-Board Sanitary Landfill Equipment Requirements - The collection and control system may be capped, removed, or decommissioned if the criteria in 40 CFR 60.33f(f) are met, except the calculated NMOC emission rate shall be less than 23 megagrams per year for three successive test dates. The NMOC emission rate must be calculated in accordance with 40 CFR 63.1959(c) for purposes of determining when the system can be capped, removed, or decommissioned.
(9VAC5-80-110, 9VAC5-40-5935D, 40 CFR 63.1950, 40 CFR 63.1957(b), and Condition 12 of 2/5/2021 Permit)
8. R-Board Sanitary Landfill Equipment Requirements - Except where this permit is more restrictive than the applicable requirement, the MSW landfill (Ref. No. 001) shall be constructed/modified and operated in compliance with the applicable requirements of 40 CFR Part 60 Subpart WWW, 9VAC5-40 Article 43.1, and 40 CFR Part 63 Subpart AAAA.
(9VAC5-80-110, 40 CFR Part 60 Subpart WWW, 9VAC5-40 Article 43.1, 40 CFR Part 63 Subpart AAAA, and Condition 13 of 2/5/2021 Permit)
9. R-Board Sanitary Landfill Equipment Requirements - In order to comply with the requirements of 40 CFR 63.1959(b)(2)(iii)(A), the equipment in 40 CFR 63.1961(c) must be installed, calibrated, maintained, and operated according to the manufacturer's specifications and 40 CFR 63.1961(c).
(9VAC5-80-110, 9VAC5-40-5965, 40 CFR 63.1961(c), and Conditions 25 and 26 of 2/5/2021 Permit)
10. R-Board Sanitary Landfill Equipment Requirements - The permittee must prepare, maintain, and operate in accordance with a site-specific treatment system monitoring plan as specified in 40 CFR 63.1983(b)(5). Monitoring device installation, calibration, maintenance, and operation must be in accordance with 40 CFR 63.1961(g) at a minimum.
(9VAC5-80-110, 9VAC5-40-5970, and 40 CFR 63.1961(g))
11. R-Board Sanitary Landfill Equipment Requirements - The provisions of this permit implementing 40 CFR Part 63 Subpart AAAA apply at all times, including periods of startup, shutdown or malfunction. During periods of startup, shutdown, and malfunction, the permittee must comply with the work practice specified in 40 CFR 63.1958(e)(1) in lieu of the compliance provisions in 40 CFR 63.1960.
(9VAC5-80-110, 9VAC5-40-5960, and 40 CFR 63.1960(e))
12. R-Board Sanitary Landfill Equipment Requirements - The non-assisted flare(s) (Ref. No. F002) shall combust landfill gas with a net heating value of 200 Btu/scf or greater, and an exit velocity less than 60 ft/sec. Prior DEQ approval is required for the flare(s) to be designed and operated with a higher exit velocity but less than 400 ft/sec, as specified in 40 CFR 60.18(c)(4)(ii) or (iii) and based on calculation of higher net heating value and maximum permitted velocity, as stated in 40 CFR 60.18(f)(3) – (6). The flare(s) shall be maintained and operated in accordance with the manufacturer's written instructions and recommendations. The open flare system shall be in operation when the landfill gas

collection system is operating, and landfill gas is routed to the flare(s). The open flare system shall be provided with adequate access for inspection.

(9VAC5-80-110, 40 CFR 63.1958(f), and Condition 6 of 2/5/2021 Permit)

13. R-Board Sanitary Landfill Equipment Requirements - The approved fuel for the open flare(s) (Ref. No. F002) is landfill gas (LFG) with minimum heat content of 200 Btu/scf HHV. Natural gas or LP gas including propane may be used as fuel for the pilot.
(9VAC5-80-110 and Condition 11 of 2/5/2021 Permit)
14. R-Board Sanitary Landfill Equipment Requirements - The open flare(s) (Ref. No. F002) shall be operated with no visible emissions, as determined by EPA Method 22 (reference 40 CFR 60, Appendix A), except for periods not to exceed a total of five minutes during two consecutive hours.
(9VAC5-80-110 and Condition 18 of 2/5/2021 Permit)
15. R-Board Sanitary Landfill Equipment Requirements - Nitrogen oxides (NO_x) emissions from the tub grinder engine (Ref. No. 005) shall be controlled by a turbocharged engine and aftercooler. Visible emissions and other pollutant emissions from the tub grinder engine (Ref. No. 005) shall be controlled by the use of good operating practices and performing appropriate maintenance in accordance with the manufacturer recommendations. In addition, the permittee may only change those settings that are permitted by the manufacturer and does not increase air emissions.
(9VAC5-80-110 and Condition 8 of 2/5/2021 Permit)
16. R-Board Sanitary Landfill Equipment Requirements - The tub grinder engine (Ref. No. 005) shall not operate more than 500 hours per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-110 and Condition 14 of 2/5/2021 Permit)
17. R-Board Sanitary Landfill Equipment Requirements - The approved fuel for the tub grinder engine (Ref. No. 005) is diesel fuel. The diesel fuel shall meet the ASTM D975 specification for S15 diesel fuel oil with a maximum sulfur content per shipment of 0.0015% and the requirements in 40 CFR 1090.305. A change in the fuel may require a new or amended permit.
(9VAC5-80-110, 40 CFR 63.6604(a), and Condition 15 of 2/5/2021 Permit)
18. R-Board Sanitary Landfill Equipment Requirements - The permittee shall obtain a certification from the fuel supplier with each shipment of diesel fuel. Each fuel supplier certification shall include the following:
 - a. The name of the fuel supplier;
 - b. The date on which the diesel fuel was received;

- c. The quantity of diesel fuel delivered in the shipment;
- d. A statement that the diesel fuel complies with the American Society for Testing and Materials specifications (ASTM D975) for S15 diesel fuel oil; and
- e. The sulfur content of the diesel fuel.

Fuel sampling and analysis, independent of that used for certification, as may be periodically required, or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition 17. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.
(9VAC5-80-110 and Condition 16 of 2/5/2021 Permit)

19. R-Board Sanitary Landfill Equipment Requirements - Emissions from the operation of the tub grinder (Ref. No. 005) shall not exceed the limits specified below:

| | | |
|---------------------------------------|------------|-------------|
| Nitrogen Oxides (as NO ₂) | 10.1 lb/hr | 2.5 tons/yr |
| Carbon Monoxide | 1.5 lb/hr | 0.4 tons/yr |

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition 16.
(9VAC5-80-110 and Condition 17 of 2/5/2021 Permit)

20. R-Board Sanitary Landfill Equipment Requirements - Visible emissions from the tub grinder engine (Ref. No. 005) shall not exceed 5% opacity, except during one 6-minute period in any one hour in which visible emissions shall not exceed 10% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9VAC5-80-110 and Condition 19 of 2/5/2021 Permit)

21. R-Board Sanitary Landfill Equipment Requirements - The tub grinder engine (Ref. No. 005) shall be equipped with a non-resettable hour metering device to monitor the operating hours. The non-resettable hour meter used to continuously measure the hours of operation for the engine shall be observed by the owner with a frequency of not less than once each day the engine is operated. The owner shall record the hour readings observed in a log that shall be maintained on-site and made available to DEQ staff upon request.

Each monitoring device shall be installed, maintained, calibrated (as appropriate) and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be

provided with adequate access for inspection and shall be in operation when the tub grinder engine is operating.

(9VAC5-80-110 and Condition 28 of 2/5/2021 Permit)

22. R-Board Sanitary Landfill Equipment Requirements - Emissions of carbon monoxide from the tub grinder engine (Ref. No. 005) exhaust shall not exceed 23 ppmvd at 15% oxygen or shall be reduced by 70% or more.
(9VAC5-80-110 and 40 CFR 63.6603(a))
23. R-Board Sanitary Landfill Equipment Requirements - The permittee shall operate the tub grinder engine (Ref. No. 005), including associated air pollution control equipment and monitoring equipment as follows:
 - a. In compliance with applicable emission limitations, operating limitations, and any other requirements in 40 CFR Part 63 Subpart ZZZZ applicable to the engine at all times.
 - b. In a manner consistent with safety and good air pollution control practices for minimizing emissions at all times.
 - c. In compliance with the closed crankcase ventilation system requirements in 40 CFR 63.6625(g).
 - d. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to Subpart ZZZZ apply.
(9VAC5-80-110, 40 CFR 63.6605(a) and (b), and 40 CFR 63.6625(g) and (h))
24. R-Board Sanitary Landfill Equipment Requirements - If a continuous parameter monitoring system (CPMS) is required to be installed on the tub grinder engine (Ref. No. 005) as specified in Table 5 of 40 CFR Part 63 Subpart ZZZZ, the permittee must install, operate, and maintain each CPMS according to the requirements in 40 CFR 63.6625(b)(1) through (6), and monitor and collect data according to 40 CFR 63.6635.
(9VAC5-80-110, 40 CFR 63.6625(b), and 40 CFR 63.6635)
25. R-Board Sanitary Landfill Equipment Requirements - At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and nonscheduled maintenance.
- b. Maintain an inventory of spare parts.
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9VAC5-80-110, 40 CFR 63.1955(c), and Condition 41 of 2/5/2021 Permit)

26. R-Board Sanitary Landfill Equipment Requirements - The compost trommel engine (Ref. No. 006) must be certified to the emission standards for new nonroad CI engines in 40 CFR 1039.101, 1039.102, 1039.104, 1039.105, 1039.107, and 1039.115 and 40 CFR Part 1039, Appendix I, as applicable, for all pollutants, for the same model year and maximum engine power.
(9VAC5-80-110, 40 CFR 60.4204(b), and 40 CFR 60.4201(a))
27. R-Board Sanitary Landfill Equipment Requirements - The permittee shall operate and maintain the compost trommel engine (Ref. No. 006) that achieves the emission standards as required in 40 CFR 60.4204 over the entire life of the engine.
(9VAC5-80-110 and 40 CFR 60.4206)
28. R-Board Sanitary Landfill Equipment Requirements - The approved fuel for the compost trommel engine (Ref. No. 006) is diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel.
(9VAC5-80-110 and 40 CFR 60.4207(b))
29. R-Board Sanitary Landfill Equipment Requirements - For the compost trommel engine (Ref. No. 006), the permittee shall do all the following, except as permitted under 40 CFR 60.4211(g):
 - a. Operate and maintain the engine and control device (if any) according to the manufacturer's emission-related written instructions;
 - b. Change only those emission-related settings that are permitted by the manufacturer;
and

c. Meet the requirements of 40 CFR Part 1068, that apply to the engine.
(9VAC5-80-110 and 40 CFR 60.4211(a))

30. R-Board Sanitary Landfill Equipment Requirements - The compost trommel engine (Ref. No. 006) must be installed and configured according to the manufacturer's emission-related specifications. If the engine is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, the engine must be, to the extent practicable, maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions.
(9VAC5-80-110, 40 CFR 60.4211(c), and 40 CFR 60.4211(g)(2))

31. R-Board Sanitary Landfill Equipment Requirements - Visible emissions from the emergency generator engine (Ref. No. EG-1) shall not exceed 20% opacity, except during one 6-minute period in any one hour in which visible emissions shall not exceed 30% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9VAC5-80-110, 9VAC5-50-80, and 9VAC5-50-20 A.4)

32. R-Board Sanitary Landfill Equipment Requirements - For the emergency generator engine (Ref. No. EG-1), the permittee must comply with the emission standards for field testing in 40 CFR 1048.101(c) for non-emergency stationary engines and the following emission standards:

| | |
|-----------------------------------|----------------|
| Nitrogen Oxides plus Hydrocarbons | 10 grams/HP-hr |
|-----------------------------------|----------------|

| | |
|-----------------|-----------------|
| Carbon Monoxide | 387 grams/HP-hr |
|-----------------|-----------------|

The permittee must operate and maintain the emergency generator engine (Ref. No. EG-1) that achieves the emission standards specified in this condition over the entire life of the engine.
(9VAC5-80-110, 40 CFR 60.4233(d) and (h), and 40 CFR 60.4234)

33. R-Board Sanitary Landfill Equipment Requirements - The emergency generator engine (Ref. No. EG-1) shall be equipped with a non-resettable hour metering device to monitor the operating hours of the engine. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

The non-resettable hour meter shall be installed, maintained, calibrated (as appropriate) and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The meter shall be provided with adequate access for inspection and shall be in operation when the emergency generator engine is operating.
(9VAC5-80-110 and 40 CFR 60.4237(c))

34. R-Board Sanitary Landfill Equipment Requirements - The permittee shall operate the emergency generator engine (Ref. No. EG-1) according to the requirements in paragraphs a. through c. of this condition. In order for the engine to be considered an emergency engine under 40 CFR Part 60 Subpart JJJJ, any operation other than emergency operation, maintenance and testing and operation in non-emergency situations for 50 hours per year, as described in paragraphs a. through c. is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs a. through c., the engine will not be considered an emergency engine under 40 CFR Part 60 Subpart JJJJ and must meet all requirements for non-emergency engines.
- a. There is no time limit on the use of the emergency generator engine ((Ref. No. EG-1) in emergency situations.
 - b. The emergency generator engine (Ref. No. EG-1) may be operated for the purpose in paragraph b.i. of this condition for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph c. of this condition counts as part of the 100 hours per calendar year allowed by this paragraph b.
 - i. The emergency generator engine (Ref. No. EG-1) may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of the emergency generator engine (Ref. No. EG-1) beyond 100 hours per calendar year.
 - c. The emergency generator engine (Ref. No. EG-1) may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph b. of this condition. Except as provided in 40 CFR 60.4243(d)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
(9VAC5-80-110 and 40 CFR 60.4243(d))
35. R-Board Sanitary Landfill Equipment Requirements - For the emergency generator engine (Ref. No. EG-1), the permittee shall comply with applicable General Provisions in 40 CFR 60.1 through §60.19 indicated in Table 3 of 40 CFR Part 60 Subpart JJJJ.
(9VAC5-80-110 and 40 CFR 60.4246(a))

Recordkeeping

36. R-Board Sanitary Landfill Equipment Requirements - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with the requirements in this permit applicable to the landfill (Ref. No. 001) and open flare system (Ref. No. F002). The content and format of such records shall be agreed upon with the Regional Air Compliance Manager of the DEQ's NRO. These records shall include, but are not limited to:
- a. The design capacity report that triggered 40 CFR 63.1959(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate.
 - b. The following records shall be kept for the life of the control system equipment as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. Records of the control device vendor specifications must be maintained until removal.
 - i. Maximum expected gas generation flow rate as calculated in 40 CFR 63.1960(a)(1).
 - ii. Density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR 63.1962(a).
 - iii. The flare type (i.e., steam-assisted, air-assisted, or non-assisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18.
 - iv. Continuous records of the flare pilot flame or flare flame monitoring specified under 40 CFR 63.1961(c).
 - v. Records of all periods of operations during which the pilot flame of the flare flame is absent.
 - c. Records of the equipment operating parameters monitoring at the frequency specified in the approved site-specific treatment system monitoring plan as specified in 40 CFR 63.1983(b)(5)(ii).
 - d. Records of the equipment operating parameters specified to be monitored in 40 CFR 63.1961.
 - e. Records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

- f. Continuous records of the indication of flow to the treatment system and control system and the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under 40 CFR 63.1961.
- g. Records of periods when the collection system or control device or treatment system is not operating.
- h. Records of the date, time, and duration of each startup and/or shutdown period, recording the periods when the affected source was subject to the standard applicable to startup and shutdown. In the event that an affected unit fails to meet an applicable standard, the records of the information in 40 CFR 63.1983(c)(7)(i)-(iii) shall be maintained.
- i. Records of the written procedures required by 40 CFR 63.8(d)(2), in lieu of the requirements specified in 40 CFR 63.8(d)(3), for the life of the affected source or until the affected source is no longer subject to the provisions of this part. If the performance evaluation plan is revised, previous (i.e., superseded) versions of the performance evaluation plan shall be maintained for a period of 5 years after each revision to the plan. The program of corrective action must be included in the plan required under 40 CFR 63.8(d)(2).
- j. Plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector kept for the life of the collection system.
- k. Records of the installation date and location of all newly installed collectors as specified under 40 CFR 63.1960(b).
- l. Documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in 40 CFR 63.1962(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in 40 CFR 63.1962(a)(3)(ii).
- m. All collection and control system exceedances of the operational standards in 40 CFR 63.1958, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.
- n. Records of wellhead temperature, nitrogen content, and oxygen content monitoring required in 40 CFR 63.1983(e)(2).
- o. Records of each root cause analysis conducted for which corrective actions are required in 40 CFR 63.1960(a)(3)(i)(A) or (a)(4)(i)(A), including a description of the recommended corrective action(s) taken, and the date(s) the corrective action(s) were completed.

- p. Records of each root cause analysis conducted for which corrective actions are required in 40 CFR 63.1960(a)(3)(i)(B) or (a)(4)(i)(B), the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.
- q. Record of the root cause analysis conducted for which corrective actions are required in 40 CFR 63.1960(a)(3)(i)(C) or (a)(4)(i)(C), the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the Regional Air Compliance Manager of the DEQ's NRO.
- r. Records of all collection and control system monitoring data for parameters measured in 40 CFR 63.1961(a)(1) through (6).
- s. Records of any engineering calculations or company records used to estimate the quantities of leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of annual waste acceptance or total waste in place in the areas where leachate or liquids were applied.
- t. A copy of the most recently updated gas collection and control system design plan.
- u. All decommissioned wells and supporting documentation to show the reason for decommissioning each well.
- v. Total annual landfill gas flow to the open flare(s), recorded monthly, as the sum of each consecutive twelve-month period.
- w. A copy of the most recent surface methane monitoring design plan (including Cells F-1 and F-2).
- x. Results of quarterly (or annual) surface monitoring.
- y. Results of all stack tests and visible emission evaluations.
- z. Scheduled and unscheduled maintenance and operator training.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent (5) years. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. Alternative records shall be kept for this timeline as provided in 40 CFR 63.1981(d)(2).
(9VAC5-80-110, 9VAC5-40-5970, 40 CFR 63.1983, and Condition 33 of 2/5/2021 Permit)

37. R-Board Sanitary Landfill Equipment Requirements - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with the requirements in this permit applicable to the tub grinder engine (Ref. No. 005). The content and format of such records shall be agreed upon with the Regional Air Compliance Manager of the DEQ's NRO. These records shall include, but are not limited to:
- a. All fuel supplier certifications.
 - b. Tub grinder engine information including make, model, serial number, model year, maximum engine power (bhp), and engine displacement.
 - c. The tub grinder engine manufacturer's written operating instructions or procedures developed by the owner/operator that are approved by the engine manufacturer.
 - d. Records described in 40 CFR 63.6655(a)(1) through (5).
 - e. Records required in Table 6 of Subpart ZZZZ to show compliance with each applicable emission or operating limitation.
 - f. Results of all stack tests and visible emission evaluations.
 - g. Scheduled and unscheduled maintenance and operator training.
 - h. The log of hours of operation of the engine as required in Condition 21 of this permit.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent (5) years. Records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). Each record must be readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

(9VAC5-80-110, 40 CFR 63.6655(a) and (d), 40 CFR 63.6660(a), (b), and (c), and Condition 33 of 2/5/2021 Permit)

38. R-Board Sanitary Landfill Equipment Requirements - If the compost trommel engine (Ref. No. 006) is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, then the permittee must keep a maintenance plan and records of conducted maintenance.
(9VAC5-80-110 and 40 CFR 60.4211(g)(2))
39. R-Board Sanitary Landfill Equipment Requirements - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with the requirements in this permit applicable to the emergency generator engine (Ref. No. EG-1). The content and format of such records shall be agreed upon with the Regional Air

Compliance Manager of the DEQ's NRO. These records shall include, but are not limited to:

- a. All notifications submitted to comply with 40 CFR Part 60 Subpart JJJJ and all documentation supporting any notification.
- b. Maintenance conducted on the engine.
- c. If the engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 1048, 1054, and 1060, as applicable.
- d. If the engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards.
- e. If the engine does not meet the Subpart JJJJ standards applicable to non-emergency engines, the permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must keep records of how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent (5) years.

(9VAC5-80-110, and 40 CFR 60.4245(a)(1) – (4), and (b))

Testing

40. R-Board Sanitary Landfill Equipment Requirements - Upon request by the DEQ, the permittee shall conduct additional performance testing of the open flare(s) (Ref. No. F002) to demonstrate compliance with the net heating value determination and exit velocity determination as stated in 40 CFR 63.1959 (e). The details of the tests shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO.
(9VAC5-80-110 and Condition 20 of 2/5/2021 Permit)
41. R-Board Sanitary Landfill Equipment Requirements - Upon request by the DEQ, the permittee shall conduct visible emission evaluations of the open flare(s) (Ref. No. F002) and tub grinder engine (Ref. No. 005) to demonstrate compliance with the visible emission limits contained in this permit. The details of the VEE shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO.
(9VAC5-80-110 and Condition 21 of 2/5/2021 Permit)
42. R-Board Sanitary Landfill Equipment Requirements - The facility shall be constructed or modified so as to allow for emissions testing upon reasonable notice at any time, using

appropriate methods. Sampling ports shall be provided when requested by the DEQ at the appropriate locations and safe sampling platforms and access shall be provided.
(9VAC5-80-110 and Condition 22 of 2/5/2021 Permit)

43. R-Board Sanitary Landfill Equipment Requirements - If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9VAC5-80-110)
44. R-Board Sanitary Landfill Equipment Requirements - The permittee shall conduct the performance tests as specified in Tables 3, 4, 5, and 6 in 40 CFR Part 63 Subpart ZZZZ that apply to the tub grinder engine (Ref. No. 005) to determine compliance with the emission limits or emission reduction in Condition 22 of this permit. Tests shall be conducted and reported, and data reduced as set forth in 9VAC5-50-30 and 9VAC5-60-30 and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410 and 9VAC5-60-70. The details of the tests are to be arranged with the Air Compliance Manager, DEQ's Northern Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Air Compliance Manager, DEQ's Northern Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit.
(9VAC5-80-110, 40 CFR 63.6612(a), 40 CFR 63.6615, 40 CFR 63.6620(a), (d), (e) – (i), 40 CFR 63.6630(a) and (b), and 40 CFR 63.6640(a))
45. R-Board Sanitary Landfill Equipment Requirements - If the compost trommel engine (Ref. No. 006) is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, the permittee shall conduct an initial performance test on the engine to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after the engine and control device (if any) are no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after emission-related settings are changed in a way that is not permitted by the manufacturer. The performance tests shall be conducted and reported, and data reduced as set forth in 9VAC5-50-30 and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Air Compliance Manager, DEQ's Northern Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Air Compliance Manager, DEQ's Northern Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit.
(9VAC5-80-110, 40 CFR 60.4211(g)(2), and 40 CFR 60.4212)

Reporting

46. R-Board Sanitary Landfill Equipment Requirements - All correspondence concerning this permit shall be submitted to the following address:

Regional Air Compliance Manager
Department of Environmental Quality
Northern Regional Office
13901 Crown Court Woodbridge, VA 22193
(9VAC5-80-110 and Condition 32 of 2/5/2021 Permit)

47. R-Board Sanitary Landfill Equipment Requirements - The permittee shall submit the following reports for the landfill (Ref. No. 001):
- a. Revisions to the approved design plan under 40 CFR 63.1981(d) shall be submitted for approval in accordance with 40 CFR 63.1981(e)(1) and (2).
 - b. A closure report must be submitted within 30 days of the permanent cessation of waste acceptance. If a closure report has been submitted, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4).
 - c. An equipment removal report must be submitted within 30 days prior to removal or cessation of operation of the control equipment. The report shall include all information required in 40 CFR 63.1981(g) and any additional information requested under 40 CFR 63.1981(g)(2).
 - d. Semi-annual reports shall be submitted that contain the information required in 40 CFR 63.1981(h).
 - e. Performance test reports shall be submitted and shall include all information required in 40 CFR 63.1981(i).
 - f. Corrective action reports shall be submitted and shall comply with 40 CFR 63.1981(j).

Each report shall be submitted to the Regional Air Compliance Manager of the DEQ's NRO. Reports shall be submitted in accordance with 40 CFR 63.1981(l) except as provided in 40 CFR 63.1981(m) and (n). A copy of each report shall be submitted also to EPA Region 3 (Email: R3_APD_Permits@epa.gov) except for reports submitted electronically in accordance with 40 CFR 63.1981(l).
(9VAC5-80-110, 9VAC5-40-5970, 40 CFR 63.1981, and Conditions 34, 35, and 36 of 2/5/2021 Permit)

48. R-Board Sanitary Landfill Equipment Requirements - The permittee shall furnish written notification of the following to the Regional Air Compliance Manager of the DEQ's NRO at the address given in Condition 46:
- a. The actual date on which construction of each new cell (G-1 through G-5) at the MSW landfill (Ref. No. 001) commenced within 30 days after such date.

- b. The anticipated date of initial startup of each new cell (G-1 through G-5) at the MSW landfill (Ref. No. 001) postmarked not more than 60 days nor less than 30 days prior to such date.
 - c. The actual start-up date of each new cell (G-1 through G-5) at the MSW landfill (Ref. No. 001) within 15 days after such date.
 - d. The specifications for each flare added to the gas collection and control system, at a minimum including manufacturer, flare type, maximum flow rating, emissions information demonstrating compliance with Conditions 4 and 14 at least 30 days prior to the anticipated date of installation.
 - e. The anticipated date of performance tests of the gas collection and control system postmarked at least 30 days prior to such date.
(9VAC5-80-110 and Condition 38 of 2/5/2021 Permit)
49. R-Board Sanitary Landfill Equipment Requirements - The permittee shall submit the following reports for the tub grinder engine (Ref. No. 005):
- a. Notification of Compliance Status according to 40 CFR 63.6645.
 - b. Report each instance in which the applicable requirements in Tables 2b and 2d of 40 CFR Part 63 Subpart ZZZZ were not met.
 - c. Report each instance in which the applicable requirements in Table 8 of Subpart ZZZZ were not met.
 - d. All applicable notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h).
 - e. Submit a Notification of Intent to conduct a performance test at least 60 days before the test is scheduled to begin as required in 40 CFR 63.7(b)(1).
 - f. A Notification of Compliance Status according to 40 CFR 63.9(h)(2)(ii).
 - g. Each report in Table 7 of Subpart ZZZZ by the date specified in Table 7 and according to the requirements in 40 CFR 63.6650(b)(1) through (b)(9).

Each report shall be submitted to the Regional Air Compliance Manager of the DEQ's NRO. Each Compliance report must contain the information specified in 40 CFR 63.6650(c), (d), and (e) that applies to the tub grinder engine (Ref. No. 005). Reports shall be submitted in accordance with 40 CFR 63.6650(f).
(9VAC5-80-110, 40 CFR 63.6630(c), 40 CFR 63.6640(b) and (e), 40 CFR 63.6645(a), (g), and (h), and 40 CFR 63.6650(a) – (f))

Insignificant Emission Units – R-Board Sanitary Landfill

50. Insignificant Emission Units - The following emission units at the facility are identified in the application as insignificant emission units under 9VAC5-80-720:

| Emission Unit Description | Citation (9VAC) | Pollutant(s) Emitted (9VAC5-80-720B) | Rated Capacity (9VAC5-80-720C) |
|--|-----------------------------|---|---|
| Four 500-gallon diesel storage tanks | 5-80-720.B | VOC | ----- |
| One 100-gallon diesel storage tank | 5-80-720.B | VOC | ----- |
| Two 100-gallon gasoline storage tanks | 5-80-720.B | VOC | ----- |
| Three 250-gallon bulk oil storage tanks | 5-80-720.B | VOC | ----- |
| Two 1,000-gallon used oil tanks | 5-80-720.B | VOC | ----- |
| One 500-gallon used oil tank | 5-80-720.B | VOC | ----- |
| One 500-gallon fuel oil storage tank | 5-80-720.B | VOC | ----- |
| One 66,000 gallon above ground leachate storage tank | 5-80-720.B | VOC | ----- |
| One 87,500 Btu/hr Jenny air compressor | 5-80-720.B | NO _x , SO ₂ , CO, VOC, PM10 | ----- |
| One 59,600 Btu/hr Honda GX160 water truck pump | 5-80-720.B | NO _x , SO ₂ , CO, VOC, PM10 | ----- |
| One 87,500 Btu/hr Honda GX240 multiquip pump QP3TH | 5-80-720.B | NO _x , SO ₂ , CO, VOC, PM10 | ----- |
| One 158,000 Btu/hr Wacker PTS 4 pump B&S Vanguard 303447 | 5-80-720.B | NO _x , SO ₂ , CO, VOC, PM10 | ----- |
| One Clean-Burn model 1750 fuel oil furnace | 5-80-720.C | ----- | 0.17 MMBtu/hr |
| One Clean-Burn model 2500 fuel oil furnace | 5-80-720.C | ----- | 0.25 MMBtu/hr |
| One Clean-Burn model 3500 fuel oil furnace | 5-80-720.C | ----- | 0.35 MMBtu/hr |
| One Wanco light tower with Kubota engine model D1105-BG-ET01 | 5-80-720.C | ----- | 12.6 kW |
| One light tower with Mitsubishi engine model L3E | 5-80-720.C | ----- | 277,400 Btu/hr |
| One Hotsy-1410SS steam cleaner | 5-80-720.A | ----- | 342,900 Btu/hr |
| One portable generator RP6500 with Caterpillar engine model r420-v | 5-80-720.A | ----- | 6,500 watts |
| One pressure washer HP4040 with Honda GX390 engine | 5-80-720.A | ----- | 11.7 HP |

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9VAC5-80-110. (9VAC5-80-110)

Facility Information – Ameresco Stafford LLC

Permittee

Ameresco Stafford LLC
111 Speen Street, Suite 410
Framingham, Massachusetts 06611

Responsible Official

Mr. Harold Stewart
Manager, Plant Operations

Facility

Ameresco Stafford LLC
489 Eskimo Hill Road
Stafford, Virginia 22554

Contact Person

Ms. Lily Clarke
Environmental Compliance Engineer
(508) 598-3140

County-Plant Identification Number: 51-179-00100

Facility Description: NAICS 221119 – Ameresco Stafford LLC operates a landfill gas to energy facility consisting of two GE Jenbacher model JGS 320 GS-LL engine-generator sets, each rated at 1,468 brake horsepower (bhp) and 1,060 electric kilowatts (kW), located at the R-Board Landfill. The engine-generator sets are fueled with LFG purchased from the R-Board Landfill to produce electricity for sale to the electric utility. Air pollutants expected from the engines include NO_x, SO₂, CO, VOC, PM₁₀, and PM_{2.5}. The Ameresco facility currently operates under an NSR permit issued June 20, 2007, as amended March 27, 2015.

Emission Units – Ameresco Stafford

Equipment to be operated at the Ameresco Stafford LLC facility (DEQ air registration no. 41050) consists of:

| Emission Unit ID | Stack ID | Emission Unit Description | Size/Rated Capacity* | Pollution Control Device (PCD) Description | PCD ID | Pollutant Controlled | Applicable Permit Date |
|-------------------------|-----------------|---|--|---|---------------|-----------------------------|---|
| 003 | 003 | GE Jenbacher Genset model JGS 320 GS-L.L (engine 1) | 30 million Btu/hr; 1,468 bhp; 1,060 kW | -- | -- | -- | 6/20/2007, as amended 3/27/2015 NSR Permit |
| 004 | 004 | GE Jenbacher Genset model JGS 320 GS-L.L (engine 2) | 30 million Btu/hr; 1,468 bhp; 1,060 kW | -- | -- | -- | 6/20/2007, as amended 3/27/2015 NSR Permit |

*The Size/Rated capacity is provided for informational purposes only and is not an applicable requirement.

Ameresco Stafford Equipment Requirements - (Emission Unit ID# 003 and 004)

Limitations

51. Ameresco Stafford Equipment Requirements - Emissions of nitrogen oxides (NO_x), carbon monoxide (CO), and particulate matter (PM) from the engines (Ref. No. 003 and 004) shall be controlled by good work practices.
(9VAC5-80-110 and Condition 2 of 3/27/2015 Permit)
52. Ameresco Stafford Equipment Requirements - At all times, the disposal of volatile organic compounds shall be accomplished by taking measures, to the extent practicable, consistent with good air pollution control practices for minimizing emissions. Volatile organic compounds shall not be intentionally spilled, discarded in sewers which are not connected to a treatment plant, or stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution practices for minimizing emissions.
(9VAC5-80-110 and Condition 3 of 3/27/2015 Permit)
53. Ameresco Stafford Equipment Requirements - The approved fuel for the engines (Ref. No. 003 and 004) is landfill gas. A change in the fuel may require a permit to modify and operate.
(9VAC5-80-110 and Condition 4 of 3/27/2015 Permit)
54. Ameresco Stafford Equipment Requirements - The engines (Ref. No. 003 and 004) combined shall consume no more than 4.84×10^8 standard cubic feet of landfill gas per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-110 and Condition 5 of 3/27/2015 Permit)
55. Ameresco Stafford Equipment Requirements - Nitrogen oxide emissions (as NO₂) from each engine (Ref. No. 003 and 004) shall not exceed 3.6 pounds per hour.
(9VAC5-80-110 and Condition 6 of 3/27/2015 Permit)
56. Ameresco Stafford Equipment Requirements - Total combined emissions from the engines (Ref. Nos. 003 and 004) shall not exceed the limits specified below:

| | |
|---------------------------------------|--------------|
| Nitrogen Oxides (as NO ₂) | 31.5 tons/yr |
| Sulfur Dioxide (SO ₂) | 7.0 tons/yr |
| Carbon Monoxide (CO) | 85.0 tons/yr |

Volatile Organic Compounds (VOC) 7.0 tons/yr

PM10 23.6 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition 53 and Condition 54.
(9VAC5-80-110 and Condition 7 of 3/27/2015 Permit)

57. Ameresco Stafford Equipment Requirements - Visible emission from the operation of the engines (Ref. No. 003 and 004) shall not exceed five percent (5%) opacity, except during one 6-minute period in any one hour in which visible emissions shall not exceed ten percent (10%) opacity, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.

During start-up and shut down times, visible emissions from the engines (Ref. No. 003 and 004) shall not exceed ten percent (10%) opacity except during one 6-minute period in any one hour in which visible emissions shall not exceed twenty percent (20%) opacity.
(9VAC5-80-110 and Condition 8 of 3/27/2015 Permit)

58. Ameresco Stafford Equipment Requirements - At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in manner consistent with good air pollution control practices for minimizing emissions.

Records of maintenance shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9VAC5-80-110, 40 CFR 60.4243(b)(2)(ii), and Condition 18 of 3/27/2015 Permit)

59. Ameresco Stafford Equipment Requirements - Emissions from the operation of the engine (Ref. No. 003) shall not exceed the limits specified below:

Nitrogen Oxides (as NO₂) 3.0 grams/HP-hr or 220 ppmvd @ 15% O₂

Carbon Monoxide (CO) 5.0 grams/HP-hr or 610 ppmvd @ 15% O₂

Volatile Organic Compounds (VOC) 1.0 gram/HP-hr or 80 ppmvd @ 15% O₂
(9VAC5-80-110 and 40 CFR 60.4233(e))

60. Ameresco Stafford Equipment Requirements - Emissions from the operation of the engine (Ref. No. 004) shall not exceed the limits specified below:

Nitrogen Oxides (as NO₂) 2.0 grams/HP-hr or 150 ppmvd @ 15% O₂

| | |
|--|---|
| Carbon Monoxide (CO) | 5.0 grams/HP-hr or 610 ppmvd @ 15% O ₂ |
| Volatile Organic Compounds (VOC) (9VAC5-80-110 and 40 CFR 60.4233(e)) | 1.0 gram/HP-hr or 80 ppmvd @ 15% O ₂ |

61. Ameresco Stafford Equipment Requirements - The permittee must operate and maintain the affected engines (Ref. No. 003 and 004) that achieve the emission standards as required in 40 CFR 60.4233 over the entire life of the engines.
(9VAC5-80-110 and 40 CFR 60.4234)

Monitoring and Recordkeeping

62. Ameresco Stafford Equipment Requirements - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Air Compliance Manager, DEQ's Northern Regional Office. These records shall include, but are not limited to:
- Monthly and annual throughput of landfill gas for each engine (Ref. No. 003 and 004). Annual throughput of landfill gas shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
 - Monthly and annual emission calculations for the pollutants listed in Condition 56 using methods approved by the Air Compliance Manager, DEQ's Northern Regional Office to verify compliance with the ton/yr emission limitations in Condition 56. Annual pollutant emission rates shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
 - A maintenance plan and records of maintenance conducted on each engine (Ref. No. 003 and 004).
 - All notifications submitted to comply with the applicable requirements in 40 CFR Part 60 Subpart JJJJ and all documentation supporting any notification.
 - Documentation that each engine (Ref. No. 003 and 004) meets the applicable emissions standards in 40 CFR Part 60 Subpart JJJJ.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9VAC5-80-110, 40 CFR 60.4243(b)(2)(ii), 40 CFR 60.4245(a)(1), (2), and (4), and Condition 12 of 3/27/2015 Permit)

Testing

- 63. Ameresco Stafford Equipment Requirements - The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. Test ports shall be provided when requested in accordance with the applicable reference method or performance specification (ref. 40 CFR Part 60, Appendices A and B).
 (9VAC5-80-110 and Condition 10 of 3/27/2015)

- 64. Ameresco Stafford Equipment Requirements - The permittee shall conduct performance tests on the exhaust of each engine (Ref. No. 003 and 004) every 8,760 hours or 3 years, whichever comes first, to determine compliance with the applicable emission limits in Conditions 59 and 60 of this permit. Tests shall be conducted and reported, and data reduced as set forth in 9VAC5-50-30 and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Air Compliance Manager, DEQ’s Northern Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Air Compliance Manager, DEQ’s Northern Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit.
 (9VAC5-80-110, 40 CFR 60.4234, and 40 CFR 60.4245(d))

- 65. Ameresco Stafford Equipment Requirements - Upon request by the DEQ, the permittee shall conduct additional performance tests and/or visible emission evaluations on the engines (Ref. No. 003 and 004) to demonstrate compliance with the emission limits and/or visible emission limits contained in this permit. The details of the tests shall be arranged with the Air Compliance Manager, DEQ’s Northern Regional Office.
 (9VAC5-80-110 and Condition 11 of 3/27/2015)

Insignificant Emission Units – Ameresco Stafford

- 66. Insignificant Emission Units - The following emission units at the facility are identified in the application as insignificant emission units under 9VAC5-80-720:

| Emission Unit Description | Citation (9VAC) | Pollutant(s) Emitted (9VAC5-80-720B) | Rated Capacity (9VAC5-80-720C) |
|--|-------------------------|---|---------------------------------------|
| One engine oil tank | 5-80-720.C | ----- | 750 gallons |
| One portable oil tank | 5-80-720.C | ----- | 300 gallons |
| Two engine oil day tanks | 5-80-720.C | ----- | 180 gallons, each |
| One used oil tank | 5-80-720.C | ----- | 650 gallons |
| Two 1500 kVA transformers dielectric oil | 5-80-720.C | ----- | 362 gallons, each |
| One 300kVA transformer dielectric oil | 5-80-720.C | ----- | 250 gallons |

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9VAC5-80-110. (9VAC5-80-110)

Permit Shield & Inapplicable Requirements

67. Permit Shield & Inapplicable Requirements - Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

| Citation | Title of Citation | Description of Applicability |
|-----------------------|--|---|
| 40 CFR 60, Subpart Kb | Volatile Organic Liquid Storage Vessels | The leachate stored in the leachate storage tank has a vapor pressure less than NSPS Kb specified threshold limits. |
| 40 CFR 64 | Compliance Assurance Monitoring | The facilities are subject to an NSPS and MACT that were proposed after 11/15/1990; therefore, the regulation is not applicable. |
| 9 VAC 5, Rule 4-43 | Emission Standards for Municipal Solid Waste Landfills | Existing Source Rule for MSW Landfills does not apply since the facility was modified after 05/30/91, and its capacity makes it subject to 40 CFR 60, Subpart WWW. The landfill is subject to MACT AAAA and Rule 43.1 |

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act or (ii) the DEQ pursuant to §10.1-1307.3 or §10.1-1315 of the Virginia Air Pollution Control Law. (9VAC5-80-110 and 9VAC5-80-140)

General Conditions

68. General Conditions - Federal Enforceability - All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable. (9VAC5-80-110)

69. General Conditions - Permit Expiration

- a. This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9VAC5-80-80, the right of the facility to operate shall be terminated upon permit expiration.
- b. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
- c. If an applicant submits a timely and complete application for an initial permit or renewal under 9VAC5-80-80 F, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9VAC5 Chapter 80, until the DEQ takes final action on the application under 9VAC5-80-150.
- d. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9VAC5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9VAC5 Chapter 80.
- e. If an applicant submits a timely and complete application under section 9VAC5-80-80 for a permit renewal but the DEQ fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9VAC5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
- f. The protection under subsections F 1 and F 5 (ii) of section 9VAC5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9VAC5-80-80 D, the applicant fails to submit by the deadline specified in writing by the DEQ any additional information identified as being needed to process the application.
(9VAC5-80-80, 9VAC5-80-110 and 9VAC5-80-170)

70. General Conditions -Recordkeeping and Reporting - All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

- a. The date, place as defined in the permit, and time of sampling or measurements;
- b. The date(s) analyses were performed;
- c. The company or entity that performed the analyses;

- d. The analytical techniques or methods used;
 - e. The results of such analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.
(9VAC5-80-110)
71. General Conditions -Recordkeeping and Reporting - Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9VAC5-80-110)
72. General Conditions -Recordkeeping and Reporting - The permittee shall submit the results of monitoring contained in any applicable requirement to the DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9VAC5-80-80 G, and shall include:
- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31; and
 - b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:
 - i. Exceedances of emissions limitations or operational restrictions;
 - ii. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring or periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,
 - iii. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
 - c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semiannual reporting period."
(9VAC5-80-110)
73. General Conditions - Annual Compliance Certification - Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to the Environmental Protection Agency (EPA) and the DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including

emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a) (3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9VAC5-80-80 G, and shall include:

- a. The time period included in the certification. The time period to be addressed is January 1 to December 31;
- b. The identification of each term or condition of the permit that is the basis of the certification;
- c. The compliance status;
- d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance;
- e. Consistent with subsection 9VAC5-80-110, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period;
- f. Such other facts as the permit may require to determine the compliance status of the source; and
- g. One copy of the annual compliance certification shall be submitted to the EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3_APD_Permits@epa.gov
(9VAC5-80-110)

74. General Conditions - Permit Deviation Reporting - The permittee shall notify the Air Compliance Manager, DEQ's Northern Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. Owners subject to the requirements of 9VAC5-40-50 C or 9VAC5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9VAC5-40-40 or 9VAC5-50-40. The occurrence should also be reported in the next semiannual compliance monitoring report pursuant to Condition 72 of this permit.
(9VAC5-80-110 F. 2)

75. General Conditions - Failure/Malfunction Reporting - In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall no later than four daytime business hours after the malfunction is discovered, notify the Air Compliance Manager, DEQ's Northern Regional Office of such failure or malfunction and within 14 days provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9VAC5-40-50 C or 9VAC5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9VAC5-40-40 or 9VAC5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Air Compliance Manager, DEQ's Northern Regional Office.
(9VAC5-80-110 and 9VAC5-20-180)

76. General Conditions - Failure/Malfunction Reporting - Each owner required to install a continuous monitoring system (CMS) or monitoring device subject to 9VAC5-40-41 or 9VAC5-50-410 shall submit a written report of excess emissions (as defined in the applicable subpart in 9VAC5-50-410) and either a monitoring systems performance report or a summary report form, or both, to the DEQ semiannually. All semiannual reports shall be postmarked by the 30th day following the end of each calendar semiannual period (June 30th and December 31st). All reports shall include the following information:

- a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9VAC5-40-41 B.6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;
- b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken, or preventative measures adopted;
- c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
- d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.

All malfunctions of emission units not subject to 9VAC5-40-50 C and 9VAC5-50-50 C require written reports within 14 days of the discovery of the malfunction.
(9VAC5-80-110 and 9VAC5-20-180 C, and 9VAC5-50-50)

77. General Conditions - Severability - The terms of this permit are severable. If any condition, requirement, or portion of the permit is held invalid or inapplicable under any circumstance,

such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9VAC5-80-110)

78. General Conditions - Duty to Comply - The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9VAC5-80-110)
79. General Conditions - Need to Halt or Reduce Activity not a Defense - It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9VAC5-80-110)
80. General Conditions - Permit Modification - A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9VAC5-80-50, 9VAC5-80-1100, 9VAC5-80-1605, or 9VAC5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9VAC80-110, 9VAC5-80-190, and 9VAC5-80-260)
81. General Conditions - Property Rights - The permit does not convey any property rights of any sort, or any exclusive privilege.
(9VAC5-80-110)
82. General Conditions - Duty to Submit Information - The permittee shall furnish to the DEQ, within a reasonable time, any information that the DEQ may request in writing to determine whether cause exists for modifying, revoking, and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the DEQ along with a claim of confidentiality.
(9VAC5-80-110)
83. General Conditions - Duty to Submit Information - Any document (including reports) required in a permit condition to be submitted to the DEQ shall contain a certification by a responsible official that meets the requirements of 9VAC5-80-80 G.
(9VAC5-80-110)
84. General Conditions - Duty to Pay Permit Fees - The owner of any source for which a permit was issued under 9VAC5-80-50 through 9VAC5-80-300 shall pay annual emissions fees, as applicable, consistent with the requirements of 9VAC5-80-310 through 9VAC5-80-350 and

annual maintenance fees, as applicable, consistent with the requirements of 9VAC5-80-2310 through 9VAC5-80-2350.

(9VAC5-80-110, 9VAC5-80-310 et seq., and 9VAC5-80-2310 et seq.)

85. General Conditions - Fugitive Dust Emission Standards - During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:
- a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
 - b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
 - c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;
 - d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
 - e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.
- (9VAC5-80-110 and [9VAC5-40-90 or 9VAC5-50-90])
86. General Conditions - Startup, Shutdown, and Malfunction - At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the DEQ, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9VAC5-80-110 and 9VAC5-50-20 E)
87. General Conditions - Alternative Operating Scenarios - Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9VAC5-80-140 shall extend to all terms and

conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9VAC5 Chapter 80, Article 1.
(9VAC5-80-110)

88. General Conditions - Inspection and Entry Requirements - The permittee shall allow the DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

- a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
- b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
- c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
- d. Sample or monitor at reasonable times' substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9VAC5-80-110)

89. General Conditions - Reopening for Cause - The permit shall be reopened by the DEQ if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9VAC5-80-80 F. The conditions for reopening a permit are as follows:

- a. The permit shall be reopened if the DEQ or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- b. The permit shall be reopened if the administrator or the DEQ determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- c. The permit shall not be reopened by the DEQ if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9VAC5-80-110 D.

(9VAC5-80-110)

90. General Conditions - Permit Availability - Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to the DEQ upon request. (9VAC5-80-110 and 9VAC5-80-150)
91. General Conditions - Transfer of Permits
- a. No person shall transfer a permit from one location to another, unless authorized under 9VAC5-80-130, or from one piece of equipment to another.
 - b. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the DEQ of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9VAC5-80-200.
 - c. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the DEQ of the change in source name within 30 days of the name change and shall comply with the requirements of 9VAC5-80-200.
(9VAC5-80-110 and 9VAC5-80-160)
92. General Conditions - Permit Revocation or Termination for Cause - A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects, or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9VAC5 Chapter 80 Article 1. The DEQ may suspend, under such conditions and for such period of time as the DEQ may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.
(9VAC5-80-110, 9VAC5-80-190 C, and 9VAC5-80-260)
93. General Conditions - Duty to Supplement or Correct Application - Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9VAC5-80-110 and 9VAC5-80-80 E)
94. General Conditions - Stratospheric Ozone Protection - If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(9VAC5-80-110 and 40 CFR Part 82)

95. General Conditions - Asbestos Requirements - The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150). (9VAC5-60-70 and 9VAC5-80-110)
96. General Conditions - Accidental Release Prevention - If the permittee has more or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68. (9VAC5-80-110 and 40 CFR Part 68)
97. General Conditions - Changes to Permits for Emissions Trading - No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (9VAC5-80-110)
98. General Conditions - Emissions Trading - Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:
 - a. All terms and conditions required under 9VAC5-80-110, except subsection N, shall be included to determine compliance.
 - b. The permit shield described in 9VAC5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
 - c. The owner shall meet all applicable requirements including the requirements of 9VAC5-80-50 through 9VAC5-80-300. (9VAC5-80-110)

Source Testing Report Format

Cover

1. Plant name and location
2. Units tested at source (indicate Ref. No. used by source in permit or registration)
3. Tester; name, address, and report date

Certification

1. Signed by team leader / certified observer (include certification date)
- *2. Signed by reviewer

Introduction

1. Test purpose
2. Test location, type of process
3. Test dates
- *4. Pollutants tested
5. Test methods used
6. Observers' names (industry and agency)
7. Any other important background information

Summary of Results

1. Pollutant emission results / visible emissions summary
2. Input during test vs. rated capacity
3. Allowable emissions
- *4. Description of collected samples, to include audits when applicable
5. Discussion of errors, both real and apparent

Source Operation

1. Description of process and control devices
2. Process and control equipment flow diagram
3. Process and control equipment data

* Sampling and Analysis Procedures

1. Sampling port location and dimensioned cross section
2. Sampling point description
3. Sampling train description
4. Brief description of sampling procedures with discussion of deviations from standard methods
5. Brief description of analytical procedures with discussion of deviation from standard methods

Appendix

- *1. Process data and emission results example calculations
2. Raw field data
- *3. Laboratory reports
4. Raw production data
- *5. Calibration procedures and results
6. Project participants and titles
7. Related correspondence
8. Standard procedures

* Not applicable to visible emission evaluations.