

**COMMONWEALTH OF VIRGINIA  
Department of Environmental Quality  
Blue Ridge Regional Office**

**STATEMENT OF LEGAL AND FACTUAL BASIS**

New River Resource Authority  
Pulaski County, Virginia  
Permit No. BRRO-21397

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, New River Resource Authority has applied for a Title V Operating Permit for its Cloyd's Mountain facility. The Department has reviewed the application and has prepared a Title V Operating Permit.

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Date: \_\_\_\_\_

Regional Director: \_\_\_\_\_  
Robert J. Weld

Date: \_\_\_\_\_

## **FACILITY INFORMATION**

### Permittee

New River Resource Authority  
7100 Cloyd's Mountain Road  
Dublin, VA 24084

### Facility

New River Resource Authority Regional Solid Waste Management Facility  
7100 Cloyd's Mountain Road  
Dublin, VA 24084

### Responsible Official and Contact Person

Joseph R. Levine, P.E., Executive Director

County-Plant Identification Number: 51-155-00065

## **SOURCE DESCRIPTION**

NAICS Code: 562212 – Waste Treatment and Disposal – Solid Waste Landfill

The New River Resource Authority (NRRA) owns and operates the New River Resource Authority Regional Solid Waste Management Facility, a solid waste landfill. Solid waste is transported via trucks to the working face of the sanitary landfill for final disposal.

The facility does not have any underlying construction or state operating permits. The facility is considered a new source under Virginia regulations. 9 VAC 5-40-5800 applies only to facilities constructed prior to May 30, 1991. The facility was constructed between May 30, 1991 and October 21, 1994. Facilities constructed during this time frame were not required to undergo permit review. During that time, emissions from landfills were considered fugitive. In the October 21, 1994, memorandum from John Sietz, it was concluded that the EPA's 1987 guidance was in error and stated that, because landfill gas could be collected, it could not be considered fugitive and that new landfills should be evaluated for PSD and non-attainment applicability. The memo also stated that landfills which had already been constructed should not be reevaluated; the requirement to review landfill gas emissions (for permit applicability) only applied to landfills constructed or modified after the date of the memo.

The facility is a Title V source per NSPS Subpart WWW due to the design capacity of the landfill exceeding the threshold capacity for applicability. Once the NMOC emission rate is  $\geq 50$  Mg NMOC the source may be subject to MACT AAAA- *National Emission Standards for Municipal Solid Waste Landfills*, NMOC emissions are currently well below this threshold and

the facility is not currently subject to MACT AAAA. This source is not a major source of emissions at this time. Compliance Assurance Monitoring is not applicable since NRRA is not a major source. The source is located in an attainment area for all pollutants, and is a PSD minor source.

The two emergency generators are subject to MACT ZZZZ. Generator T09 does not have any requirements and Generator T10 is required to meet the requirements of NSPS JJJJ.

**COMPLIANCE STATUS**

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

**EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION**

The emission units at the facility are reflected in the Title V permit on Page 4 (significant units) and Condition 12 (insignificant units).

**EMISSIONS INVENTORY**

A copy of the 2011 annual emission update or permit application emission inventory is attached. Emissions are summarized in the following table.

2011 Actual Emissions

	2011 Criteria Pollutant Emission in Tons/Year				
	VOC	CO	SO <sub>2</sub>	PM <sub>10</sub>	NO <sub>x</sub>
Total	0.32	15.59	1.59	1.73	7.07

**EMISSION UNIT APPLICABLE REQUIREMENTS**

The following section discusses requirements for the emissions units at the facility that are subject to Title V permitting. These requirements come from applicable federal requirements. The conditions are not repeated verbatim from the permit. The regulatory authority for each condition is listed in parentheses () below each condition in the permit.

NSPS Subpart WWW – Standards of Performance for Municipal Solid Waste Landfills (40 CFR 60.752(b)) states that owners or operators of an MSW landfill subject to that subpart with a

design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters is subject to part 70 or 71 requirements. Virginia regulations (9 VAC 5-80-110.A.2) states that for any source other than a major source subject to this article [Federal Operating Permits for Stationary Sources], the board shall include in the permit all applicable requirements that apply to emissions units that cause the source to be subject to this article. NRRA is not a major source and the landfill is the emission unit that causes the source to be subject to Title V permitting. See the MACT ZZZZ & NSPS JJJJ section for additional discussion.

## **Landfill**

### **Limitations**

The landfill requirements from 40 CFR 60 Subpart WWW requiring installation of a NSPS compliant flare are in this section. However, based on recent Tier 2 testing the facility is less than the 50 Mg NMOC threshold (CY 2011 4.5 Mg NMOC) requiring control and the facility is not expected to exceed the 50 Mg threshold and require controls during the term of this permit. The source has voluntarily installed a gas collection system and an 8-inch PEI Utility Flare for safety reasons. The installation of the flare was determined to be exempt from minor NSR permitting on October 3, 2007. The collection system and flare are not required under NSPS WWW at this time, therefore; the NSPS requirements for this equipment are not included in this Title V permit renewal.

The utility flare (PCD-1) is subject to the visible emission limits in 9 VAC 5-80-50; these limits are included in this section.

### **Monitoring, Recordkeeping and Reporting**

Waste acceptance rates are monitored to determine actual emissions and NSPS requirements. Weekly observations of the presence of visible emissions are required for weeks that the flare (PCD-1) is operating. Reporting requirements are included in Conditions 7 – 11 of the permit. NMOC emission rate reports are required to be compiled and submitted according to 40 CFR 60.757(b). NSPS monitoring and recordkeeping are also included in this section to be used when the flare is required by the NSPS. The current recordkeeping, monitoring and reporting requirements are adequate to determine compliance.

### **Testing**

Testing is required per NSPS WWW (40 CFR 60.752(b)(2)(iii)(B)) (once the NMOC emission rate  $\geq$  50 Mg) with the results being submitted with a required NSPS compliance report. No additional testing is required; however, the VADEQ and EPA have the authority to require additional testing in the future.

## **Streamlined Requirements**

The control requirements for MACT AAAA (once the NMOC emission rate  $\geq$  50 Mg) have been streamlined by the requirements of NSPS WWW.

## **GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

### **Comments on General Conditions**

#### **15-20. Permit Expiration**

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.2-604 and §10.1-1185 of the *Code of Virginia*, and the “Department of Environmental Quality Agency Policy Statement No. 2-09”.

#### **26. Failure/Malfunction Reporting**

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

#### **44-47. Malfunction as an Affirmative Defense**

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Conditions 44-47 and General Condition 26. For further explanation see the comments on General Condition 26.

## **51. Asbestos Requirements**

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

### **STATE ONLY APPLICABLE REQUIREMENTS**

None

### **FUTURE APPLICABLE REQUIREMENTS**

MACT AAAA - *National Emission Standards for Municipal Solid Waste Landfills* - May apply to the source when the NMOC emission rate is greater than or equal to 50 Mg per year (2010 NMOC uncontrolled emission rate was 4.5 Mg).

### **INAPPLICABLE REQUIREMENTS**

None identified in the application. The facility is subject to 40 CFR 98.346 and is required to maintain GHG monitoring records and calculations. However, the requirements contained in the GHG Reporting Rule in 40 CFR 98 are currently not included in the definition of applicable requirements in 40 CFR 70.2 and 71.2 and are therefore not included in the Title V permit. There are no applicable GHG permitting requirements.

### **COMPLIANCE PLAN**

None

### **INSIGNIFICANT EMISSION UNITS**

The insignificant emission units are presumed to be in compliance with all requirements of the 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.

Insignificant emission units are shown in the table contained in Condition 12 of the permit.

### **MACT ZZZZ & NSPS JJJJ EMISSION UNITS**

The source submitted a permit application for the renewal of their Title V permit and that application included two emergency generators that are subject to MACT ZZZZ and NSPS JJJJ. The authority to enforce both of these regulations has been retained by the EPA and they are not

incorporated by reference into the Virginia regulations (9 VAC 5-60-100). These emission units are subject to MACT ZZZZ and NSPS JJJJ and the source must comply with the applicable requirements of those regulations. The applicable requirements for both of those regulations has not been included in this Title V permit renewal because Virginia regulations (9 VAC 5-80-110.A.2) states that for any source other than a major source subject to this article [Federal Operating Permits for Stationary Sources], the board shall include in the permit all applicable requirements that apply to emissions units that cause the source to be subject to this article. NRRA is not a major source and the landfill is the emission unit that causes the source to be subject to Title V permitting. This permitting approach has been discussed with Kathleen Cox, EPA Region III.

The following is a discussion of the two emergency generators, MACT ZZZZ and NSPS JJJJ.

#### **Emergency engine (T09)**

T09 is an 80 Hp LP Gas fired emergency generator that was manufactured on July 11, 2006 and was installed in August of 2006. The generator is located in Pump Station 1. 40 CFR 63 Subpart ZZZZ contains requirements for emergency engines greater than 19 kW (25 Hp) that are manufactured on or after January 1, 2009 and constructed after June 12, 2006. This generator is considered a new stationary RICE located at an area source. §63.6590 (c) states that a new stationary RICE located at an area source must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart JJJJ and that no further requirements of Subpart ZZZZ apply. However, this engine is not subject to any requirements under Subpart JJJJ since it was not manufactured on or after July 1, 2008. Following current VADEQ policy and EPA guidance<sup>1</sup> this engine does not have any regulatory requirements associated with Subparts ZZZZ or JJJJ.

#### **Emergency engine (T10)**

T10 is a 60 Hp LP Gas fired, rich burn, certified emergency generator that was manufactured on September 6, 2011 and was installed on September 23, 2011. The generator is used for emergency power to the admin/scale house. 40 CFR 63 Subpart ZZZZ contains requirements for emergency engines greater than 19 kW (25 Hp) that are manufactured on or after January 1, 2009 and constructed after June 12, 2006. This generator is considered a new stationary RICE located at an area source. §63.6590 (c) states that a new stationary RICE located at an area source must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart JJJJ and that no further requirements of Subpart ZZZZ apply. The following information is taken from Subpart JJJJ:

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<sup>1</sup> *Implementation Question and Answer Document for NESHAP RICE and NSPS IIII & JJJJ*; July 17, 2012; Number 40; [www.epa.gov/ttn/atw/rice/201207/riceupdate.pdf](http://www.epa.gov/ttn/atw/rice/201207/riceupdate.pdf)

## Limitations

1. The T10 engine must comply with the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines (HC+NO<sub>x</sub> = 13.4 g/kW-hr; CO = 519 g/kW-hr), and other requirements for new nonroad SI engines in 40 CFR Part 90. (§60.4233(c)).
2. Owner or operators of stationary spark ignition internal combustion engines (SI ICE) that are manufactured after July 1, 2008, and must comply with the emission standards specified in §60.4233(a) through (c), must comply by purchasing an engine certified to the emission standards in §60.4231(a) through (c) as applicable, for the same engine class and maximum engine power. In addition, the permittee must meet one of the requirements specified in §60.4243(a)(1) and (2):
  - (a)(1) If the permittee operates and maintains the certified stationary SI ICE and control device according to the manufacturer's emission related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator. The permittee must also meet the requirements as specified in 40 CFR Part 1068, Subparts A through D, as they apply to the source. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary source stationary SI ICE will not be considered out of compliance.
  - (a)(2) If the permittee does not operate and maintain the certified stationary SI ICE and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, and the permittee must demonstrate compliance according to the following section:
    - (a)(2)(i) The permittee must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required if you are an owner or operator.
3. The source must operate the emergency SI ICE according to the requirements in paragraphs 40 CFR 60.4243 (d)(1) through (3). In order for the engine to be considered an emergency SI ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3). If the source does not operate the engine according to the requirements in paragraphs (d)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engine. (40 CFR 60.4243(d))

4. The engine is subject to the opacity requirement for new and modified sources (9 VAC 5-50-80).

### **Monitoring**

The NSPS requires maintenance and operation requirements that are monitored by hours of operation, purchasing a certified engine and other forms of recordkeeping.

### **CONFIDENTIAL INFORMATION**

No confidential information request has been made. All portions of the Title V permit and application are available for public review.

### **PUBLIC PARTICIPATION**

The draft permit was published in the Roanoke Times on April 9, 2013. The public comment period ran from April 9, 2013 to May 9, 2013. No comments were received. The EPA review period ended on April 10, 2013 (date of email from EPA). No comments were received.