

Fact Sheet



For Final Significant Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Significant Modification, and shall be considered a supplement to the original Fact Sheet corresponding with the issuance of the initial Title V operating permit issued on May 8, 2006.

Permit Number: **R30-10700121-2006**
Application Received: **April 27, 2010**
Plant Identification Number: **03-54-10700121**
Permittee: **Northwestern Landfill, Inc.**
Mailing Address: **P.O. Box 376, Parkersburg, WV 26102**

Permit Action Number: *SM01* Revised: December 7, 2010

Physical Location: Parkersburg, Wood County, West Virginia
UTM Coordinates: 457.50 km Easting • 4344.37 km Northing • Zone 17
Directions: I-77 to US Route 50 east to Dry Run Road. Turn right onto Dry Run Road. Follow for approximately 0.4 miles to landfill.

Facility Description

Northwestern Landfill (SIC: 4953) is a municipal solid waste landfill that began operation in 1975. Northwestern Landfill, Inc. owns 349 acres of land bordered by US Route 50 to the North and I-77 to the West. The facility has 133.21 acres permitted for the disposal of solid waste and receives approximately 15,000 to 25,000 tons of waste per month. Waste is brought to the landfill by truck and disposed of. The waste is spread and compacted with soil placed over the active area each day for cover.

The purpose of this modification was to facilitate construction of a Landfill Gas (LFG) flare to replace the existing individual refuse gas incinerator. As described in the Engineering Evaluation/Fact Sheet for R13-2592B, the active gas collection and control system described below will be installed in advance of any regulatory requirements and is voluntary. This project consists of one (1) skid-mounted open flare (Emission Unit ID LFG-1) that will be connected to an active gas collection system. The flare is designed to improve odor control at the facility.

Emissions Summary

Plant-wide Emissions Summary [Tons per Year]	
Pollutants	Change in Potential Emissions
Carbon Monoxide (CO)	+147.8
Nitrogen Oxides (NO _x)	+27.2
Particulate Matter (PM)	+6.7
Sulfur Dioxide (SO ₂)	+4.8
Volatile Organic Compounds (VOC)	+2.1
Hydrogen Chloride (HCl)	+5.5

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit over 100 tons per year of Nitrogen Oxides (NO_x) and Carbon Monoxide (CO). Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Northwestern Landfill is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR6	Combustion of Refuse
	45CSR10	Emission of Sulfur Oxides
	45CSR13	
	45CSR30	Operating Permit Requirement
State Only:	None	

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (if any)
R13-2592B	September 13, 2010	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

Determinations and Justifications

Units Removed

With this modification and installation of the flare, the following units will be removed:

- S1 600 Hp Diesel Motor
- S2 190 Hp Diesel Motor
- S3 Tub Grinder

Additionally, the "Miscellaneous" section of the Emission Units table was updated to represent the facilities current configuration.

45CSR6 Particulate Rules

Per 45CSR§6-4.1, this flare must meet the particulate matter limit by weight. This particulate limit is calculated using the following formula:

$$\text{Emissions (lb/hr)} = F \times \text{Incinerator Capacity (tons/hr)}$$

Where, the factor, F, is as indicated below:

Incinerator Capacity (lb/hr)	Factor (F)
<15,000	5.43
≥15000	2.72

The flare has a predicted generation rate of 12,933 lb/hr for 2010, thus the maximum particulate matter emission rate would be calculated as:

$$\text{Emissions (lb/hr)} = 5.43 \times \left[12933 \text{ lb/hr} \times \left(\frac{\text{ton}}{2000 \text{ lb}} \right) \right] = 35.11 \text{ lb/hr}$$

The flare will have an allowable particulate matter emission rate of 35.11 pounds per hour (based on predicted generation rate of 12,933 lb/hr for 2010). The predicted particulate matter rate from the flare has been estimated to be only 1.53 pounds per hour. This lower, estimated rate is the Title V permit limit in condition 5.1.1.a. Compliance with this more stringent limit will ensure compliance with the rate calculated above.

Daily Records of Dust Suppressants

Condition 3.4.4 required daily records of the use of dust suppressants and any other dust control measure used at the facility. This condition referenced Condition B.7 of R13-2592. No such condition was included in R13-2592B, therefore this condition was removed from this Title V permit.

Opacity Requirements

The flare is also subject to the 20% opacity limitation in 45CSR§6-4.3. The incineration of most components in landfill gas produces little or no visible emissions. Therefore, no visible emissions are permitted except for periods not to exceed a total of five minutes during any two consecutive hours, as specified in Condition 5.1.1.f. Compliance with this more stringent visible emissions requirement will ensure compliance with 45CSR§6-4.3.

Stack Testing

Condition 5.3.1 addressed stack testing. This condition restated portions of Condition 3.3.1, making it redundant. Additionally, Condition 5.3.1. referenced Rule 7, which does not apply to flares. Therefore,

Condition 5.3.1 was removed. Additionally, Condition 5.3.2, which references Condition 5.3.1, was also removed.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

45CSR2-To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers: The flare does not meet the definition of an indirect heat exchanger in 45CSR§2-2.14.

45CSR7-To Prevent and Control Particulate Air Pollution from Manufacturing Processes and Associated Operations: This rule does not apply to flares.

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: October 21, 2010
Ending Date: November 22, 2010

All written comments should be addressed to the following individual and office:

Rex Compston
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

Rex Compston
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1209 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

Not applicable.