

# Fact Sheet



## For Draft/Proposed Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-06900071-2011**

Application Received: **March 22, 2011**

Plant Identification Number: **03-54-069-00071**

Permittee: **American Disposal Services of West Virginia, Inc. d.b.a. Short Creek Landfill**

Mailing Address: **258 North Fork, Short Creek, WV 26003**

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Physical Location:	Short Creek, Ohio County, West Virginia
UTM Coordinates:	530.57 km Easting • 4444.10 km Northing • Zone 17
Directions:	From the city of Wheeling, take Route 2 North, turn right onto Girty Point Road and follow Road to landfill

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### Facility Description

The Short Creek Landfill (SCL) (NAICS 562212, SIC 4953) is a non-hazardous municipal solid waste (MSW) landfill that began operation in approximately 1986. The site consists of 280 acres of permitted area, including 115 acres of permitted disposal area. Of the 115 acres, 34 acres make up the closed landfill and 81 acres make up the active landfill. Currently 22 acres of the 81 acres of active area have been developed. Short Creek has portable rock crushing and sizing plant.

The landfill has a total design capacity of approximately 10.66 million tons of municipal solid waste (MSW) and consists of two segregated fill areas designated Landfill A and Landfill B. Waste placement in Landfill A began in approximately 1986 and continued through 2000. The total MSW placement in these areas is approximately 1.83 million tons.

Landfill A encompasses approximately 34 acres and is a certified closed and capped pre-Subtitle D disposal area, underlain by a natural clay liner, with a compacted clay soil cover. Landfill A has two separate areas; one consists of 11 acres of Construction/Demolition (CD) waste area, which has no gas collection and control system (GCCS) components. The second portion of Landfill A is MSW disposal area, approximately 23 acres; an active GCCS is installed and operating in this area. Waste placement in Landfill B began in 2001 and is expected to continue through 2050, given the current rate of waste acceptance.

Landfill B has a MSW capacity of approximately 8.83 million tons. The total permitted area for waste disposal in Landfill B is approximately 81 acres. Currently, 22 acres has been developed, underlain by a double composite base liner system. The final cover system for Landfill B will consist of a composite geosynthetic/low permeability soil barrier.

Short Creek receives approximately 250,000 tons of waste per year. The landfill currently accepts municipal solid waste and in the past also accepted construction/demolition/debris (CDD) waste. Site operations include disposal of solid waste, compaction of same, and daily cover with native soil. Site waste decomposes and generates methane and non-methane VOCs.

### Emissions Summary

<b>Plantwide Emissions Summary [Tons per Year]</b>		
<b>Regulated Pollutants</b>	<b>Potential Emissions</b>	<b>2009 Actual Emissions</b>
Carbon Monoxide (CO) <sup>1</sup>	137.41	24.86
Nitrogen Oxides (NO <sub>x</sub> ) <sup>1</sup>	41.78	4.57
Particulate Matter (PM <sub>2.5</sub> ) <sup>2</sup>	10.28	1.14
Particulate Matter (PM <sub>10</sub> ) <sup>2</sup>	30.79	8.42
Total Particulate Matter (TSP) <sup>2</sup>	91.07	17.83
Sulfur Dioxide (SO <sub>2</sub> ) <sup>1</sup>	6.63	1.07
Volatile Organic Compounds (VOC)	11.00	4.46
<i>PM<sub>10</sub> is a component of TSP.</i>		
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>	<b>2009 Actual Emissions</b>
Total HAPs	4.55	0.61
<i>Some of the above HAPs may be counted as PM or VOCs.</i>		
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>	<b>2009 Actual Emissions</b>
Non Methane Organic Compounds (NMOC) <sup>3</sup>	86.21	41.82
<p><b>Non-methane organic compounds (NMOC)</b> – The current emission rate estimate (calculated for year 2011) is 39.13 Mg/yr. The projected closure year is 2039 with a projected maximum uncontrolled NMOC emission rate estimate of 78.21 Mg/yr (86.21 TPY). The NMOC emission rate estimates were calculated using EPA’s Landfill Gas Emissions Model (LandGEM) software. During Tier 1 calculation, the values used for k and L<sub>o</sub> were 0.050 year<sup>-1</sup> and 170 m<sup>3</sup>/Mg respectively. The NMOC concentration used in the model was 4000 ppmv. SCL exceeded the 50 Mg/yr limit for NMOC using Tier 1. SCL’s GCCS design plan was approved on January 10, 2001 by WVDEP/DAQ.</p>		

<sup>1</sup> The increase in 2011 PTE for CO, NO<sub>x</sub>, and SO<sub>2</sub> from the 2006 PTE for CO, NO<sub>x</sub>, and SO<sub>2</sub> includes potential emission from the new rock crusher facility and the flare.

<sup>2</sup> The increase in 2011 PTE for TSP and PM<sub>10</sub> from the 2006 PTE for TSP and PM<sub>10</sub> includes potential emission from the new rock crusher facility and the revisions in AP-42 for the total roadway TSP emission. PM<sub>2.5</sub> PTE was not listed in the 2006 Plantwide Emission Summary Table.

<sup>3</sup> The decrease in 2011 NMOC from the 2006 NMOC is the variation in actual waste receipt differed from the input entered in the Land GEM in 2006.

## Title V Program Applicability Basis

This facility has a design capacity over 2.5 million megagrams or 2.5 million cubic meters and the landfill has the potential to emit 137.41 tons per year of carbon monoxide (CO). Due to this facility's design capacity and the potential to emit over 100 tons per year of criteria pollutant, Short Creek 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.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR6	Open burning prohibited.
	45CSR7	To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation
	45CSR16	Standards of Performance for New Stationary Sources Pursuant to 40 C.F.R. Part 60
	45CSR23	To Prevent and Control Emissions from Municipal Solid Waste Landfills
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
	45CSR34	Emission Standards for Hazardous Air Pollutants
	40 C.F.R. Part 60 Subpart WWW	Standard of Performance for Municipal Solid Waste Landfills
	40 C.F.R. Part 60 Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 63 Subpart AAAA	National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills
	40 C.F.R. Part 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances

State Only:	45CSR4 45CSR17	No objectionable odors. To Prevent and Control Particulate Matter Air Pollution from Materials Handling, Preparation, Storage and other sources of Fugitive Particulate Matter
	45CSR42	Greenhouse Gas Emissions Inventory Program

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 ( <i>if any</i> )
R13-2822	May 4, 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**

Since R30-06900071-2006 was issued, the only change to the Short Creek Landfill Title V Permit is the addition of R13-2822.

The following updates were made in the renewal.

1. R13-2822 is for the installation of a portable rock crushing and sizing plant (see Section 6.0).
2. The Emission Unit Table 1.0 was revised in accordance with Attachment D of Short Creek Title V Renewal Application.
  - a. The design capacity of the Flare was revised from 750 CFM to 2,500 scfm max capacity.
  - b. Replaced "gal" with "gallons" in the design capacity for tanks.
  - c. The addition of the portable rock crushing and sizing plant equipment.
  - d. The Emission Point ID for paved and unpaved roadways and new and existing leachate landfill open top tanks were revised.

3. Added Section 1.2, Active R13, R14, and R19 Permits and Table.
4. The regulatory language was updated for Sections 3.1.1 and 3.1.2, 45CSR§§6-3.1 and 3.2.
5. 45CSR34 incorporates and is now cited with 40 C.F.R. Part 61 because 45CSR15 was repealed. The citation for 3.1.3 has been revised accordingly.
6. Title V boiler plate was revised to incorporate the greenhouse gas language, 45CSR42, in Sections 3.1.9 and 3.5.10.
7. The boilerplate language for Section 3.3.1 was revised with the addition of Section 3.3.1.d and the citation was also revised to expand the authority of the West Virginia state code.
8. Sections 3.5.3 and 3.5.5 were revised accordingly to include US EPA Region 3's request that all annual compliance certifications be submitted electronically (e-mail). This is a general change to the boiler plate language.
9. Since the time period in Conditions 4.1.2.d requirement of the NSR permit (R13-2822) has elapsed, this condition was not included in the Title V renewal.
10. The citation for Section 6.1.2.d (R13-2822, Condition 4.1.2.e.) was revised to include 40 C.F.R. § 60.4207 (b) with 45CSR16 since it references 40 C.F.R. § 80.510 (b), which is for diesel fuel requirements.
11. Conditions 4.1.4, 4.4.2, and 4.4.3 from R13-2822 were not incorporated in the Title V renewal permit since the portable rock crushing and sizing plant unit does not have air pollution control equipment.
12. Condition 4.4.1 from R13-2822 was added to the citation for Section 3.4.1 since they are the same.
13. The portable rock crushing and sizing plant unit is not subject to 40 C.F.R. Part 60 Subpart OOO since the portable unit capacity is less than 150 tons per hour, and therefore exempt per 40 C.F.R. § 60.670 (c) (2).
14. Section 6.1.3 includes requirements from 40 C.F.R. 60 Subpart IIII since the 350 HP diesel engine was manufactured in 2010 and meets the criteria as specified in 40 C.F.R. § 60.4200 (a) (1) (i). These requirements are 40 C.F.R. § 60.4201 (a) and 40 C.F.R. § 60.4204 (b). 40 C.F.R. § 60.4201 (a) says the engine shall be certified to the emission standards of 40 C.F.R. § 89.112. 40 C.F.R. § 60.4204 (b) states that owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of 30 liter per cylinder or less must comply with the emission standards for new CI engine in 40 C.F.R. § 60.4201.
15. Short Creek Landfill has not modified this facility that would trigger a PSD permit for GHG or Clean Air Act requirements.

**40 C.F.R. Part 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**

Short Creek Landfill's portable rock crushing and sizing plant is powered by a 350 HP diesel engine that is subject to 40 C.F.R. Part 63 Subpart ZZZZ. The diesel engine (DG) is an affected source that is a new stationary RICE, per 40 C.F.R. § 63.6590 (a) (2) (iii). Since the affected source is considered a new stationary RICE located at an area source of HAPs, per 40 C.F.R. § 63.6590 (c), DG must meet the requirements of 40 C.F.R. Part 63 Subpart ZZZZ by meeting the requirements of 40 C.F.R. Part 60 Subpart IIII. No further requirements apply for such engines under 40 C.F.R. Part 63 Subpart ZZZZ. This engine was installed after June 12, 2006.

An affected source that meets any of the criteria in 40 C.F.R. §§ 63.6590 (c) (1) through (7) must meet the requirements of 40 C.F.R. § 63.6590 (c) by meeting the requirements of 40 C.F.R. Part 60 Subpart IIII, for compression ignition engines or 40 C.F.R. Part 60 Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under 40 C.F.R. § 63.6590 (c).  
[40 C.F.R. § 63.6590 (c) (1)]

The diesel engine (DG) does not have any requirements from 40 C.F.R. Part 63 Subpart ZZZZ in the Title V Permit.

### Non-Applicability Determinations

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

<b>40 C.F.R. § 60.757 (a) (3)</b>	The design capacity of this facility is greater than 2.5 million megagrams and 2.5 million cubic meters. Therefore, amended design capacity reports are not required.
<b>40 C.F.R. Part 64</b>	This is the second permit renewal for this facility. The facility was found not to be subject to CAM at the time of the first renewal. Therefore, a CAM determination is not required.

### 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: June 7, 2011  
Ending Date: July 7, 2011

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

Wayne Green  
Title V Permit Writer  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> 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**

Wayne Green  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: 304/926-0499 ext. 1258 • Fax: 304/926-0478

### **Response to Comments (Statement of Basis)**

**(Choose)** Not applicable.

**OR**

Describe response to comments that are received and/or document any changes to the final permit from the draft/proposed permit.