

# Fact Sheet



## *For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act*

Permit Number: **R30-07900103-2006**  
Plant Identification Number: **03-54-07900103**  
Permittee: **Disposal Service, Inc.**  
Facility Name: **Disposal Service, Inc. Sanitary Landfill**  
Mailing Address: **P.O. Box 448, Hurricane, WV 25526**  
Renewal Title V Application Received: **February 6, 2006**

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Physical Location: Hurricane, Putnam County, West Virginia  
UTM Coordinates: 410.86 km Easting • 4250.24 km Northing • Zone 17  
Directions: On the right hand side State Route 34, approximately 1/2 mile south of the intersection of State Route 34 and U.S. Route 60 near Hurricane in Putnam County

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### **Facility Description**

The Disposal Service, Inc. Sanitary Landfill (NAICS 562212, SIC 4953) is comprised of approximately 335.3 acres which includes two disposal areas (covering 84.7 acres) and support facilities. The disposal areas are commonly referred to as Phase I and Phase II. Phase I has a design capacity of 4,618,263 Mg on 44.5 acres for disposal operations. A Phase II disposal area (future) is 40.2 acres with a design capacity of 4,618,574 Mg. As Phase I approaches capacity, Phase II will be opened to continue waste disposal operations. The landfill accepts an average of 500 tons per day. Phase I is expected to reach capacity in year 2021, Phase II is assumed to reach its design capacity in year 2064.

## Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Criteria Pollutants	Potential Emissions	2004 Actual Emissions
Carbon Monoxide (CO)	47.29	1.77
Nitrogen Oxides (NO <sub>x</sub> )	2.37	None
Particulate Matter (PM <sub>10</sub> )	27.03	15.60
Total Particulate Matter (TSP)	117.61	67.61
Sulfur Dioxide (SO <sub>2</sub> )	1.04	None
Volatile Organic Compounds (VOC)	24.80	8.32
Lead (Pb)	Not Applicable	None
<i>PM<sub>10</sub> is a component of TSP.</i>		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	2004 Actual Emissions
Non Methane Organic Compounds (NMOC)	10.82	3.50
Hydrogen Sulfide	1.64	0.53
Hazardous Air Pollutants	Potential Emissions	2004 Actual Emissions
Total HAPs	14.53	4.914
<i>Some of the above HAPs may be counted as PM or VOCs.</i>		
<p><b>Non-methane organic compounds (NMOC)</b> – The current emission rate estimate (calculated for year 2004) is 0.574 Mg/yr. The projected closure year is 2065 with a projected maximum NMOC emission rate estimate of 22.1 Mg/yr. The NMOC emission rate estimates were calculated using EPA's Landfill Gas Emissions Model (LandGEM) software. The values used for k and L<sub>o</sub> were 0.50 year<sup>-1</sup> and 170 m<sup>3</sup>/Mg respectively. The site specific NMOC concentration used in the model was 94 ppmv, as determined by Tier 2 testing in 2002.</p>		

## Title V Program Applicability Basis

This facility has a design capacity over 2.5 million megagrams and 2.5 million cubic meters. Due to this facility's design capacity, Disposal Service, Inc. 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.
	45CSR11	Standby plans for emergency episodes.
	45CSR13	New Source Review permits for stationary sources
	45CSR16	New Source Performance Standards

45CSR17	To Prevent and Control Particulate Matter Air Pollution from Materials Handling, Preparation, Storage and other sources of Fugitive Particulate Matter
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.
40 C.F.R. Part 60 Subpart WWW	Standard of Performance for Municipal Solid Waste Landfills
40 C.F.R. Part 61	Asbestos inspection and removal
40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only: 45CSR4	No objectionable odors.

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, 45CSR15, 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> )
R30-07900103-1996	August 7, 2001	Minor Modification (MM01)
		Issued: April 28, 2005
		1. The modification reflects changes in Phase I area and Phase I/Phase II design capacities
		2. Disposal design capacity increase from 2,350,554 Mg to 4,618,263 Mg.
		3. Disposal Acreage increase from 41.9 to 44.5

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**

The only change to the August 7, 2001 Title V Permit was a minor modification. This modification reflects changes in Phase I area and Phase I/Phase II design capacities described below.

The Disposal Service Landfill is comprised of approximately 335.3 acres which includes two disposal areas (covering 84.7 acres) and support facilities. The disposal areas are commonly referred to as Phase I and Phase II. Per the initial Title V Permit disposal operations were conducted in Phase I on 41.9 active acres with the design capacity of 2,350,554 Mg. In August 2004, this area was increased to the 44.5 acres with the resulting change in design capacity from 2,350,554 Mg to 4,618,263 Mg (per modified solid waste

facility Permit No. SWF-1020/WV0109000). A Phase II disposal area (future) is 40.2 acres with a design capacity of 4,618,574 Mg (slightly changed). As Phase I approaches capacity, Phase II will be opened to continue waste disposal operations. The landfill accepts an average of 500 tons per day. Phase I is expected to reach capacity in year 2021, Phase II is assumed to reach its design capacity in year 2064.

## Proposed Installation of Flares

The Disposal Service, Inc. Landfill (DSI) proposed in their Title V Renewal Application to install 20 2-inch vent flares. DSI will submit an application for a construction permit under 45CSR13 to the Director for the proposed flares, which are subject to 45CSR6 (45CSR§6-6.1.). This rule defines the flares as incinerators and sets the following limits:

### 45CSR6 - To Prevent and Control Air Pollution from Combustion of Refuse

The particulate matter limit for each flare is calculated to be 0.59 LB/hr (45CSR§6-4.1.) as described herein;

The particulate matter emission limit from each flare is determined by the following formula (45CSR§6-4.1):

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

Where:  $F = 5.43$

$$\text{Incinerator Capacity} = 0.108 \text{ tons/hr}$$

The Volumetric design flow for each flare is 50 SCFM. To convert volumetric flow to mass flow, the density of the landfill gas is needed. The average composition of landfill gas is approximately 50% methane and 50% carbon dioxide and water vapor by volume. Using  $0.67908 \text{ kg/m}^3$  (@ 60 °F & 14.7 psia) for the density of Methane and  $1.8696 \text{ kg/m}^3$  (@ 60 °F & 14.7 psia) for the density of Carbon Dioxide, the estimated density of the landfill gas is  $1.27434 \text{ kg/m}^3$ . Using *Katmar Software's* "Uconeer - Units Conversion for Engineers" program, the volumetric flow rate of 50 SCFM is converted to a mass flow rate of 0.108 tons/hr.

The visible emission limit from each flare is 20% opacity (45CSR§6-4.3.) with the exception to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up (45CSR§6-4.4.).

This rule also prohibits from the flares, the emission of particles of unburned or partially burned refuse or ash that are large enough to be individually distinguished in the open air (45CSR§6-4.5.). The rule requires the flares, including all associated equipment and grounds, be designed, operated and maintained so as to prevent the emission of objectionable odors (45CSR§6-4.6.), and also requires an NSR permit for the construction, modification or relocation of any incinerator.

Compliance will be demonstrated through monthly visible emission checks and record keeping.

## Non-Applicability Determinations

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

<b>40 CFR Part 60 Subpart Kb</b> (July 23, 1984)	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels). The facility does not have a storage vessel subject to this part.
<b>40 C.F.R. §60.657 (a)(3)</b> (March 12, 1996)	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> (10/22/1997)	The facility does not have a pollutant specific emissions unit with a control device to meet an applicable standard or limit. Therefore, the facility is not subject to the Compliance Assurance Monitoring (CAM) rule.

### 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: March 2, 2006  
Ending Date: April 4, 2006

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)

Not applicable