

217/782-2113

CONSTRUCTION PERMIT - NSPS/NESHAP SOURCE

PERMITTEE

Onyx Orchard Hills Landfill  
Attn: Rob Kraemer  
8290 Highway 251 South  
Davis Junction, Illinois 61020

Application No.: 05020039      I.D. No.: 141017AAC  
Applicant's Designation:      Date Received: February 14, 2005  
Subject: Landfill Expansion/Flare Modification  
Date Issued: June 2, 2005  
Location: Onyx Orchard Hills Landfill, 8290 Highway 251 South, Davis Junction

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of existing municipal solid waste landfill expansion and increase the landfill gas flow of existing flare up to 4500 scfm as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1.0 Municipal Solid Waste Landfill Expansion

1.1 Description

Construction permit to allow the lateral and vertical expansion of existing landfill to provide additional waste disposal capacity and revise the permitted levels of landfill gas flow to existing flare to its maximum capacity.

1.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
01	Municipal Solid Waste Landfill Expansion	Existing Flare

1.3 Applicability Provisions and Applicable Regulations

- a. i. The landfill expansion and existing flare shall be operated to comply with applicable emission standards and other requirements of New Source Performance Standard (NSPS) 40 CFR 60, Subpart WWW and National Emission Standards for Hazardous Air Pollutant (NESHAP) 40 CFR 60, Subpart AAAA for Municipal Solid Waste Landfills, as further set forth in Unit Specific Condition 7.1 in the Clean Air Act Permit Program (CAAPP) permit 02020048, issued to the source.

- ii. This permit does not revise or relax requirements for testing, recordkeeping, and reporting requirements associated with landfill as established in Condition 7.1.7, 7.1.9, and 7.1.10, respectively, of CAAPP Permit 02020048.
- b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from the existing flare at the facility, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.
- c. At all times, the Permittee shall also, to the extent practicable, maintain and operate the landfill gas collection system and air pollution control systems in a manner consistent with good air pollution control practice for minimizing emissions.

#### 1.4 Non-Applicability of Regulations of Concern

- a. The landfill is not subject to the requirements of 35 IAC 212.321, Emissions of Particulate Matter from Process Emission Units, because due to the nature of this process, such rules cannot reasonably be applied.
- b. This permit is issued based on the landfill, including both the existing landfill and the expansion not being a major source for purposes of Prevention of Significant Deterioration (PSD) 40 CFR 52.21.

#### 1.5 Operational and Production Limits and Work Practices

- a. The Permittee shall follow good air pollution control practices to minimize nuisance fugitive dust from plant roads, parking areas, and other open areas of the landfill. These practices may provide for pavement on all regularly traveled entrances and exits to the landfill and treatment (sweeping, application of water, use of dust suppressant, etc., when necessary) of paved and unpaved roads and areas that are routinely subject to vehicle traffic.
- b. i. The Permittee shall carry out control measures for fugitive dust in accordance with a written control program maintained by the Permittee. This program shall set forth the measures being implemented to demonstrate compliance with Conditions 1.5(a), to control fugitive dust at each area of the landfill with the potential to generate significant quantities of fugitive dust. This program shall include: (i) a map or diagram showing the location of all fugitive emission units controlled, including the location, identification, length, and width of roadways, and

volume and nature of expected traffic or other activity; (ii) estimated dust emissions control technique (e.g., water spray surfactant spray, water flushing, or sweeping); (iii) triggers for additional control, e.g., observation of extended dust plumes following passage of vehicles.

- ii. The Permittee shall submit a copy of a revised fugitive dust control program to the Illinois EPA for review within 90 days of a request from the Illinois EPA for a revision to the program to address observed deficiencies in the control program.

#### 1.6 Emission Limitations

- a. Emissions and operation of the existing flare shall not exceed the following limits:

- i. Maximum landfill gas loading to the flare = 4,500 scfm.

- ii. The landfill gas consumption of the flare in million cubic feet (mcf) shall not exceed 6.48 mcf/day and 2,365.2 mcf/year.

- iii. Emissions:

<u>Pollutant</u>	<u>(Lb/Hour)</u>	<u>(Tons/Year)</u>
NO <sub>x</sub>	9.45	41.39
CO	50.63	221.76
SO <sub>2</sub>	7.36	32.2
PM	1.23	5.41
VOM	0.28	1.28

These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

- b. Emissions of particulate matter (PM) from the landfill, considering both existing operations and new operations associated with the expansion shall not exceed 72 tons/year, as determined by the use of appropriate USEPA methodology for estimating emissions of fugitive dust.

#### 1.7 Monitoring Requirements

- a. The Permittee shall install, maintain and operate a continuous monitoring system to monitor and record the fuel consumption for the flare.

- b. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the flare covered under this permit such that the flare be kept in proper working condition and not cause a violation of the Environmental Protection Act or regulations promulgated herein.
- c. The Permittee shall maintain an operating log for the flare, which at a minimum includes status of the flare(s), adjustments of the flare operating parameters, the results of inspections and maintenance and repair activity.

#### 1.8 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the landfill:

- a. The design capacity of the landfill.
- b. The landfill gas consumption by the flare, on a daily basis.
- c. Emissions from flare using the records of landfill gas usage with supporting calculations.
- d. Records of flare inspection/maintenance completed log, and operating condition of the flare. This log shall at least include the following information:
  - i. Date of inspection;
  - ii. Date maintenance performed and completed; and
  - iii. Type of maintenance needed.
- e. A file documenting assumptions about the quantity and nature of vehicle traffic at the landfill as related to the landfill operation.
- f. Records documenting implementation of the fugitive dust control program, including:
  - i. For each dust control treatment of roadway: the name and location of the roadway controlled, the type of treatment, identification of each truck used, application rate of water or other dust suppressant material, and total quantity of material applied;
  - ii. A log recording incidents when control measures were not carried out as scheduled or were not

fully implemented and incidents when additional control measures were carried out, with description of each such incident and explanation. This log shall address any adjustments to the scheduling of control measures made by the Permittee due to weather conditions that either acted to reduce or increase the level of potential dust, such as precipitation or extended periods of dry weather.

- g. Inspection and maintenance log of the landfill describing when any inspections take place, the results of the inspections, and when any maintenance performed.

#### 1.9 Reporting Requirements

- a. Permittee shall comply with all applicable reporting requirements of 40 CFR 60.757.
- b. The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the landfill with the permit requirements including emissions from the landfill in excess of the limits specified in Condition 1.1.6 within 30 days of such an occurrence. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

2.0 The Permittee may operate the landfill expansion and existing flare pursuant to this construction permit until the CAAPP permit is revised to address this unit.

If you have any questions on this, please call Minesh Patel at 217/782-2113.

Donald E. Sutton, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

DES:MVP:psj

cc: Region 2