

OPERATING PERMIT CONDITIONS
PERMIT NO. OP-09-0007
WASTE MANAGEMENT DISPOSAL SERVICES OF PENNSYLVANIA, INC.
(Revised 7/17/01)

CONDITIONS (continued):

3. This Operating Permit is issued to Waste Management Disposal Services of Pennsylvania, Inc. for the operation of the GROWS Landfill and the enclosed flare, located at New Ford Mill and Bordentown Roads, Falls Township, Bucks County. This Operating Permit incorporates Reasonably Available Control Technology (RACT) of 25 Pa. Code Sections 129.91 through 129.94 and the Emission Guidelines (EG) of 40 C.F.R. Part 60, Subpart Cc.
 - B. Permittee shall comply with either (1) the applicable operational standards for the Collection and Control Systems, set forth in 40 C.F.R. § 60.753(a), (b), (c), (e), and (f); or (2) alternative operational standards proposed by permittee within a Collection and Control System Design Plan submitted by the permittee, pursuant to 40 C.F.R. § 60.752, to the extent that the Department approves such alternative operational standards.
 - C. Nothing in this Permit concerning the gas collection and control system design plan shall be construed as precluding the permittee from proposing, in accordance with 40 C.F.R. § 60.752(b)(2)(i)(B), and upon written Department approval implementing any regulatory permitted alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of 40 C.F.R. §§ 60.753 through 60.758.

5. The Landfill
 - A. The landfill shall have a landfill gas collection system to capture the gas generated within the landfill.
 - B. The owner/operator shall annually calculate the NonMethane Organic Compound (NMOC) emission rate and Volatile Organic Compound (VOC) emission rate using the procedures specified in 40 C.F.R. Section 60.754 or as subsequently amended. Alternatively, the permittee may propose alternative surface monitoring provisions pursuant to 40 C.F.R. § 60.752, and implement such alternative provisions to the extent approved in writing by the Department.
 - C. The collection system shall be such that it can handle the maximum expected gas flow, rate from the entire area of the landfill.
 - D. The gas collection system shall be designed to minimize off-site migration of the subsurface gas.
 - E. The collection efficiency of the gas management system for the final design of the landfill at closure shall be not less than 90%.
 - F. The permittee shall install a sampling port and a thermometer or other temperature measuring device at each wellhead and measure on a monthly basis: gauge pressure in the gas collection header; nitrogen or oxygen concentration in the landfill gas; and temperature of the landfill gas as set forth in 40 C.F.R. § 60.756.

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CONDITIONS (continued):

- G. Except during periods of start-up, shakedown, scheduled maintenance, testing or malfunction in the gas transfer or pre-treatment system, or when unavoidable due to circumstances beyond the control of permittee, all collected gas (100%) shall be routed to a pretreatment system that processes the collected gas for delivery through a pipeline taking the gas outside the facility to another facility owned and operated by someone other than the permittee. For purpose of this condition and this Permit, "someone other than the permittee" shall expressly exclude the permittee's successors and the permittee's parent and subsidiary corporations and their successors.
- H. Permittee shall satisfy the surface methane monitoring obligations set forth at 40 C.F.R. §§ 60.753(d) and (g). Alternatively, the permittee may propose alternative surface monitoring provisions pursuant to 40 C.F.R. § 60.752, and implement such alternative provisions to the extent approved in writing by the Department.

6. Enclosed Flare

- A. The enclosed flare covered under this Operating Permit, manufactured by LFG Specialties, Model No. EF1 150112, must be used to burn only landfill gas generated on-site from the existing landfill, except when unavoidable during periods of start-up, at which time an alternative fuel may also be used.
- B. The enclosed flare covered under this Operating Permit shall be used only as a back-up flare. Except during periods of start-up, shakedown, scheduled maintenance, testing or malfunction in the gas transfer or pre-treatment system, or when unavoidable due to circumstances beyond the control of pennittee, all collected gas (100°/0) shall be routed to a pretreatment system that processes the collected gas for delivery through a pipeline taking the gas outside the facility to another facility owned and operated by someone other than the permittee. For purpose of this condition and this Permit, "someone other than the pennittee" shall expressly exclude the permittee's successors and the permittee's parent and subsidiary corporations and their successors.
- C. When this back-up flare is used, records of the hours of operation and landfill gas flow rate to the flare shall be maintained.
- D. The permittee may not operate the flare more than 4,380 hours/year.
- E. The flare shall burn a maximum of 5,000 scfin of landfill gas.
- F. Permittee shall set the operating temperature of the enclosed flare within the range of 1550°F to 1700°F, inclusive. The actual operating temperature for the flare must be within this range, measured as a 24-hour average. In addition, the flare may not be operated outside this temperature range for more than 15 consecutive minutes at anyone time. The flare will be allowed an appropriate warm-up sequence in accordance with the manufacturer's specifications to attain this operating temperature. The flue gas temperature shall be monitored and recorded.

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The flare shall be designed such that the retention time shall be 0.8 seconds at the maximum flow as documented by design standards.

- G. The flare shall be equipped with a pilot and shall shut off automatically if a flameout occurs.
- H. The flare shall have a minimum destruction and removal (DRE) efficiency for VOC of 98% (by weight) or the VOC concentration in the exhaust gas shall be less than 20 ppmv (dry basis as hexane at 3% oxygen), whichever is less stringent.

7. Equipment Maintenance Protocol

- A. An inspection and cleaning of the fuel-burning equipment shall be conducted annually, in accordance with the manufacturer's specifications.
- B. A major overhaul of the flare equipment shall be conducted on a periodic schedule, in accordance with manufacturer's specifications.
- C. The inspection shall include the fuel nozzles and the flame pattern or characteristics.
- D. A log shall be kept to record the annual inspection, cleaning and adjustments performed. This log shall contain, at a minimum, the date of these procedures, the name of the service company and technicians, and the operating heat rate after the procedure has been completed.
- E. The NO_x and excess oxygen testing shall be conducted with portable metering equipment, in accordance with applicable manufacturer's calibration and operating procedures.
- F. The landfill gas directed to the enclosed flare shall be measured in accordance with 40 C.F.R. Section 60.753. The permittee may propose alternative surface monitoring provisions pursuant to 40 C.F.R. § 60.752, and implement such alternative provisions to the extent approved in writing by the Department. or in accordance with an approved Collection and Control System Design Plan submitted pursuant to 40 C.F.R. Section 60.752. Records shall be maintained either in accordance with 40 C.F.R. Section 60.753 or in accordance with a Collection and Control System Design Plan submitted pursuant to 40 C.F.R. Section 60.752 and approved in writing by the Department.
- G. Permittee shall keep a log to record the annual inspection, cleaning and adjustments performed. This log shall contain, at a minimum, the date of these procedures, the names of the service provider and technicians, and the operating heat rate after the procedure has been completed.

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CONDITIONS (continued):

8. Air Emission Standards

A. The permittee shall comply with standards for air emissions from municipal solid waste (MSW) landfills set forth in 40 C.F.R. § 60.752.

C. Stack Emissions

Based on a VOC content of 1020 ppmv (as Hexane) in the landfill gas and 160% excess air used, the emissions of criteria pollutants due to burning of the landfill gas shall be limited to:

NOx 23 ppmv 9.94 lbs/hr

9. Test Methods and Procedures

A. All performance tests shall be conducted in accordance with 40 CFR § 60.754 and the Department's source testing proceedings, described in the latest Source Testing Manual reference in 25 Pa. Code Section 139.4(5).

B. The permittee shall determine the emission rate of NOx from the flare.

C. The permittee shall test the enclosed flare for NMOC, including the inlet and outlet concentrations, to determine the destruction efficiency of the flare according to the following procedures:

(i) The initial testing is to be conducted within 180 days after issuance of this Operating Permit.

(ii) At least sixty (60) days prior to the test, the owner/operator shall submit to the Department for approval the procedures for the test, and a sketch with dimensions indicating the location of sampling ports and other data to ensure the collection of representative samples.

(iii) Testing procedures shall be submitted to the Regional Air Quality Program Manager in writing at least 30 days prior to the test.

(iv) Within thirty (30) days after the source test(s), two copies of the complete test report, including all operating conditions, shall be submitted to the Regional Air Quality Manager for approval.

10. Compliance Provisions

A. The permittee shall use the methods contained in 40 C.F.R. § 60.755 to determine compliance with Sections 60.752 and 60.753.

B. All provisions of RACT proposed by GROWS, Inc. (and/or Waste Management Disposal Services of Pennsylvania, Inc.) and approved by the Department in this permit shall be implemented immediately.

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CONDITIONS (continued):

- C. All conditions relevant to 40 C.F.R. §§ 60.750 - 60.759 shall be implemented in accordance with the schedule specified in each relevant permit condition, including but not limited to Condition 12 of this Permit.

11. Monitoring and Recordkeeping Requirements

- A. The permittee shall comply with monitoring requirements in 40 C.F.R. § 60.756, which apply to the gas collection systems installed and operated at this facility.
- B. Records shall be maintained in accordance with 40 C.F.R. § 60.753 unless alternative recordkeeping provisions are proposed in a Collection and Control System Design Plan submitted by the permittee pursuant to 40 C.F.R. Section 60.752 and prior written approval granted by the Department.

12. Increments of Progress and Compliance Schedule

The permittee shall comply with the following increments of progress to ensure final compliance with the EG requirements within 30 months of the date of issue of this operating permit. At a minimum, increments of progress set forth in 40 C.F.R. § 60.21 (h) shall include the following:

- A. The permittee shall submit the Initial Design Capacity Report and NMOC Emission Rate Report to the Department within 90 days after issuance of this permit, unless such reports have already been submitted by the permittee to the Department, in accordance with 40 C.F.R. Part 60, Subpart WWW or the Emission Guidelines in 40 C.F.R. Part 60, Subpart Cc (EG).
- B. A Site-specific Collection and Control Design Plan shall be submitted to the Department within 90 days after issuance of this permit. If construction or installation of a gas control system is necessary, the permittee shall award contracts or purchase components within 90 days of the Department's written approval of the Collection and Control Design Plan.
- C. For previously constructed or installed gas collection systems, the permittee shall demonstrate, in a written submission by a Registered Professional Engineer, that the existing Collection and Control System meets the requirements of 40 C.F.R. §§ 60.752(b)(2)(i)(A) and 60.752(b)(2)(iii).
- D. The permittee shall commence initial on-site construction or installation of the Collection and Control Systems identified within and required under an approved Collection and Control System Design Plan submitted pursuant to 40 C.F.R. § 60.752, within six months of Department approval of the Site-Specific Collection and Control Design Plan to the extent that such components have not previously been installed at the facility.

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CONDITIONS (continued):

- E. The permittee shall install control systems capable of meeting the EG within 30 months of issuance of this permit.

Following installation of the Collection and Control System, a performance test shall be completed by the permittee within 180 days after submission of the Collection and Control System Design Plan to the Department. The permittee shall provide a 30-day prior written notice to the Department before commencing the performance test, and a report of the performance test results shall be submitted to enable MSW landfill owners or operators to make any necessary "shakedown" adjustments and retest before the initial official performance tests.

- F. The permittee shall comply with the EG requirements including planning, awarding of contracts, and installation of MSW landfill air emissions collection and control equipment as expeditiously as practicable but not later than 30 months after Departmental issuance of this permit.

13. Reporting Requirements

The permittee shall comply with applicable reporting requirements specified in 40 C.F.R. § 60.757 (relating to reporting requirements). The Permittee may propose alternative reporting provisions pursuant to 40 C.F.R. § 60.752, and implement such alternative provisions to the extent approved in writing by the Department or in accordance with an approved Collection and Control System Design Plan submitted pursuant to 40 C.F.R. Section 60.752. Reports shall be submitted either in accordance with 40 C.F.R. Section 60.757 or in accordance with a Collection and Control System Design Plan submitted pursuant to 40 C.F.R. Section 60.752 and approved in writing by the Department.

- A. An Equipment Removal Report, which meets the requirements of 40 C.F.R. § 60.757(c), shall be submitted to the Department within 30 days prior to the removal or cessation of operation of a gas collection system.
- B. The Initial Performance Test Report required under 40 C.F.R. § 60.8 and 60.757(g) shall be submitted by the permittee to the Department within 180 days after the Department's approval of the facility's Collection and Control Design Plan.
- C. The Annual Compliance Report required under 40 C.F.R. § 60.757(f) and (g) shall be submitted to the Department within 180 days after approval of the Collection and Control Design Plan, or installation and startup of the gas collection, whichever is later.
- D. A Closure Report which meets the requirements of 40 C.F.R. § 60.757(d) shall be submitted to the Department within 30 days of the cessation of waste acceptance if the landfill is preparing for permanent closure, in accordance with criteria specified in 40 C.F.R. § 258.60.
- E. The permittee shall submit reports required under this permit to the Department and to the United States Environmental Protection Agency (EPA) as follows:

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CONDITIONS (continued):

- (i) Any reports submitted to the Department shall be submitted to:

Regional Air Quality Manager
PA Department of Environmental Protection
555 North Lane, Suite 6010
Conshohocken, PA 19428

- (ii) Any report or notification for the EPA Administrator or EPA Region III shall be submitted to:

United State Environmental Protection Agency
Technical Assessment Section (3AT22)
Region III
1650 Arch Street
Philadelphia, PA 19103

- (iii) An application, form, report or compliance certification submitted to the Department under this permit shall contain certification by a responsible official as to truth, accuracy, and completeness as required under 25 Pa. Code § 127.402(d).
- (iv) The certification by a responsible official of the facility shall state that based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, and complete.

- F. The permittee shall comply with applicable recordkeeping requirements specified in 40 C.F.R. § 60.758 (relating to recordkeeping requirements). The records shall be kept for at least five years and shall include up-to-date, readily accessible, on-site records of the maximum design capacity, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Offsite records maybe maintained by the permittee if they are retrievable within four hours.