



**PERMIT**  
**Under the Environmental Conservation Law (ECL)**

**IDENTIFICATION INFORMATION**

Permit Type: Air Title V Facility  
Permit ID: 9-0636-00006/00017  
Mod 0 Effective Date: 10/29/2008 Expiration Date: 10/28/2013  
Mod 1 Effective Date: Expiration Date:

Permit Issued To: CHAUTAUQUA COUNTY  
3 N ERIE ST  
MAYVILLE, NY 14757-1007

Facility: CHAUTAUQUA COUNTY LANDFILL  
3889 TOWERVILLE RD  
ELLERY CENTER, NY

Contact: KEITH STOCK  
CHAUTAUQUA COUNTY DPF  
3889 TOWERVILLE RD  
JAMESTOWN, NY 14701-9653  
(716) 985-4785

Description:

**SITE DESCRIPTION**

Chautauqua County, New York owns and operates the Chautauqua County Landfill, an existing solid waste landfill located on a 790 acre parcel in the Town of Ellery, New York. The landfill was opened in the year 1981 and has a total design capacity of 5.9 million megagrams (MG). The total landfill footprint is 83.5 acres.

Landfill gas that is currently generated by the Chautauqua County Landfill as a result of the degradation of solid waste is collected by an active landfill gas collection system. The collected landfill gas is combusted in six (6) G3520C Caterpillar stationary spark ignition internal combustion engines to generate electrical power. A single open candlestick flare is used to combust any excess landfill gas not combusted by the engines. The facility also maintains a backup flare.

**PROJECT DESCRIPTION:**

The current permit action incorporates a major permit modification for a proposed vertical expansion. The proposed physical changes involve a 100-foot height increase of the existing landfill. The total landfill footprint remains the same while the total design capacity increases to 7.34 million



megagrams.

The main change to the permit includes changing the applicable landfill regulation from 6NYCRR Part 208 to 40CFR60 Subpart WWW. Minor clarifications to the applicable requirements for the landfill gas engines (40CFR60 Subpart JJJ) were also included in this permit modification.

### **EMISSIONS AND CONTROLS**

Landfill gas is generated as a result of the decomposition of organic wastes in the landfill. The gas consists primarily of methane and carbon dioxide. The landfill gas also contains non-methane organic compounds (NMOC) that are present in low concentrations. This NMOC fraction contains various volatile organic compounds (VOC) associated with ozone depletion and odors. The combustion of landfill gas in the engines and open flare results in emissions of carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter (PM), and other trace level organic constituents.

Landfill gas emissions are controlled by collecting the gas in extraction wells and piping and then combusting the gas in the internal combustion engines and open flare. The landfill gas is pretreated by a proprietary scrubbing system to clean the gas stream prior to combustion in the engines. The pre-treatment system includes filtering, dewatering and compression processes. The uncollected portion of the generated gas exits the landfill as fugitive emissions.

Chautauqua Landfill is a major stationary source based on having potential CO emissions in excess of 100 tons per year (tpy) occurring in the peak landfill gas generation year 2014.

### **APPLICABLE REQUIREMENTS:**

#### *40CFR60 Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills*

The landfill vertical expansion will make the Chautauqua Landfill subject to 40CFR60 Subpart WWW since the design capacity will have been increased after May 30, 1991. Chautauqua Landfill is subject to the control requirements of 40CFR60 Subpart WWW since the estimated uncontrolled NMOC emission rate is greater than 50 megagrams per year (Mg/yr). The control requirements include: (1) installation, operation and monitoring of an approved gas collection system, (2) design and operation of the open flare in accordance with § 60.18, and (3) operation and monitoring of a gas pre-treatment system prior to combustion in the internal combustion engines.

The compliance time schedule with 40CFR60 Subpart WWW is as follows:



January, 2008 - Tier 2 NMOC emission rate established as greater than 50 Mg/yr.

January 1, 2009 - A collection and control system design plan was submitted to the Department within 1 year of the annual report showing NMOC emissions equal to or greater than 50 Mg/yr.

June 30, 2010 – The facility is required to install the Department approved collection and control system within 30 months after the first report shows NMOC emissions equal to or greater than 50 Mg/yr.

June, 2010 – The facility is required to begin monthly monitoring of each well head no later than June 30, 2010 or within the same month the approved collection and control system is installed, whichever is sooner.

June, 2010 – The facility is required to begin quarterly monitoring of surface methane concentrations no later than June 30, 2010 or within the same quarter the approved collection and control system is installed, whichever is sooner.

December 31, 2010 – The facility is required to submit the initial annual report no later than December 31, 2010 or within 180 days of installation and start-up of the collection, control and treatment system, whichever is sooner. The annual report shall include the initial performance test report according to the requirements under § 60.8 for the open flare, engines and pre-treatment system, as appropriate.

*Proposed Amendments to 40 CFR60 Subpart WWW:*

The regulatory standards for combusting the landfill gas in stationary internal combustion engines to produce electricity require that a gas pre-treatment system be utilized. The current regulation does not provide sufficient details about the design and operating criteria of a pre-treatment system. EPA recognized the need for more detailed requirements and proposed changes to the rule on September 8, 2006. The proposed design and operational criteria have been incorporated into this permit under the citation for 40CFR60.752(b)(2)(iii)(C). The design criteria include a filter system having an absolute rating no greater than 10 microns and a dewatering system reducing the dew point by at least 20 degrees Fahrenheit. The operational criteria require the landfill to monitor pressure drop across the filtration system and monitor temperature or dew point of the dewatering system, depending on the type of de-watering system utilized.

This permit also requires Chautauqua County to submit a monitoring plan within 180 days of startup of the pre-treatment system. The plan shall provide



documentation that the pre-treatment system satisfies the design and operating criteria and shall provide monitoring methods used for the filtering, dewatering and compression processes to ensure the treatment system operates as designed.

*40CFR63 Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills:*

Chautauqua County must comply with the startup, shutdown, and malfunction requirements and submit compliance reports every 6 months including information on all deviations that occurred during the 6-month reporting period.

*40CFR60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines:*

Chautauqua County must comply with the applicable requirements of this regulation for the six(6) stationary spark ignition internal combustion engines summarized as follows:

Owners and operators who purchase stationary landfill or digester SI engines that are manufactured after July 1, 2007, that are greater than or equal to 500 horsepower (HP) must limit their exhaust emissions of NOX to 3.0 g/HP-hr, emissions of CO to 5.0 g/ HP-hr, and emissions of VOC to 1.0 g/ HP-hr. Instead of complying with limits in terms of g/HP-hr, owners and operators may limit their exhaust emissions of NOX to 220 ppmvd at 15 percent O<sub>2</sub>, emissions of CO to 610 ppmvd at 15 percent O<sub>2</sub>, and emissions of VOC to 80 ppmvd at 15 percent O<sub>2</sub>.

After July 1, 2009, owners and operators may not install stationary SI ICE manufactured before July 1, 2007 with a maximum engine power of greater than or equal to 500 HP that do not meet the applicable emission standards.

Owners and operators of engines that have never been certified by the manufacturer that are greater than 500 HP must conduct an initial performance test to demonstrate compliance. The initial performance test must be completed within 60 days after achieving the maximum production rate at which the engine will be operated, but not later than 180 days after initial startup of the engine. After the initial performance test, the engine must be tested every 8,760 hours of operation or every 3 years.

Owners and operators of all engines (certified and non-certified) are required to maintain records of proper maintenance and non-certified engines must keep a maintenance plan. An initial notification is required for owners and operators of engines greater than 500 HP that are non-certified. Also, owners and operators who conduct performance testing are required to report the test results within 60 days of each performance test.



*40CFR63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines:*  
Chautauqua County must comply with the applicable requirements of this regulation as follows:

An affected source that is a new or reconstructed stationary RICE located at an area source, must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

*6NYCRR Part 201-6 –State Required Engine Emission Rates:*

This permit contains emission limits for the internal combustion engines for nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO) of 0.6 grams per brake horsepower-hour (g/bhp-hr) and 3.0 g/bhp-hr, respectively. The Department has made these emission limits a requirement of the permit because the rates were used during the review of the engine project and proposed expansion. Performance testing for each engine is required as specified in 40 CFR 60 Subpart JJJJ. If the results of the performance testing indicate one or more engines exceed these emission limits, then an evaluation of the potential impacts and applicability to non-attainment New Source Review (6NYCRR Part 231-2), Prevention of Significant Deterioration (40CFR52.21) and Reasonably Available Control Technology for Oxides of Nitrogen (6 NYCRR Part 227-2) is required.

*6NYCRR Part 212.4 – State Required Operation of Gas Collection and Control System (GCCS):*

As indicated above, the federal regulation for landfills (40CFR 60 subpart WWWW) does not require Chautauqua County to install and operate the GCCS until June 30, 2010. In the interim, because of previous public odor nuisances caused by the landfill gas emissions, the department requires the existing GCCS to be operated and maintained in accordance with this permit condition. Once the requirements of 40CFR60 Subpart WWWW take effect, then this condition shall no longer be applicable.

**NON-APPLICABLE REQUIREMENTS:**

*6NYCRR Part 227-2 - Reasonably Available Control Technology (RACT) for Oxides of Nitrogen:*

Facility wide NO<sub>x</sub> PTE emissions, including the proposed vertical expansion, are 79.3 tons/yr which is less than the NO<sub>x</sub> RACT threshold of 100 tons/yr. Therefore, the combustion sources at the landfill are not subject to the NO<sub>x</sub> RACT requirements of 6NYCRR Part 227-2.



*6NYCRR Part 231-2 - New Source Review (NSR):*

Total facility potential NO<sub>x</sub> and VOC emissions from the proposed vertical expansion and the existing landfill are less than 100 and 50 tons/year, respectively. Therefore, the facility is not a major source of non-attainment contaminants and is not subject to New Source Review requirements.

*40CFR52.21 - Prevention of Significant Deterioration (PSD):*

The existing landfill is a major source of carbon monoxide (CO) emissions. As such, the proposed vertical expansion project emissions of the attainment area pollutants were compared against the PSD significant emission rates. The project PTE of the following pollutants and the corresponding PSD significant emission rate are summarized below:

	PTE	PSD
NO <sub>x</sub>	0.5	40 tpy
CO	9.0	100 tpy
SO <sub>2</sub>	0.04	40 tpy
PM-10	0.2	15 tpy
PM-2.5	0.2	10 tpy

As indicated above, the proposed vertical expansion will not cause an emissions increase above the significance thresholds and, therefore, is not subject to PSD review.

*Commissioner's Policy Number 33 (CP-33):*

Daily truck traffic will remain unchanged from the proposed project. Consequently, particulate emissions due to traffic including brake and tire wear will have no affect on the CP-33 applicability for the proposed project. Overall particulate emissions due to the proposed vertical expansion project will increase slightly but are not expected to increase the primary PM-10 emissions by 15 tpy or more. As such, the CP-33 policy is not applicable.

*40CFR64 - Compliance Assurance Monitoring (CAM):*

As stated in 40CFR64.2(b)(1)(i), the requirements of CAM shall not apply to emission limits or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act. The EPA published a proposal for regulation of new MSW landfills under section 111(b) and for existing MSW landfills under section 111(d) of the CAA in the Federal Register on May 30, 1991 (56 FR 24468). The resulting emission limits for municipal solid waste landfills became effective on March 12, 1996 under 40CFR60 Subpart WWW. The Chautauqua County Landfill is subject to the requirements of Subpart WWW and is therefore, exempt from the



CAM requirements of 40 CFR Part 64.

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

Permit Administrator:            DAVID S DENK  
   DIVISION OF ENVIRONMENTAL PERMITS  
   270 MICHIGAN AVE  
   BUFFALO, NY 14203-2999

Authorized Signature: \_\_\_\_\_ Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_



### Notification of Other State Permittee Obligations

**Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification**

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the compliance permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in any compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

**Item B: Permittee's Contractors to Comply with Permit**

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

**Item C: Permittee Responsible for Obtaining Other Required Permits**

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

**Item D: No Right to Trespass or Interfere with Riparian Rights**

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.



## LIST OF CONDITIONS

### DEC GENERAL CONDITIONS

#### General Provisions

- Facility Inspection by the Department
- Relationship of this Permit to Other Department Orders and Determinations
  - Applications for permit renewals, modifications and transfers
  - Applications for Permit Renewals and Modifications
  - Permit modifications, suspensions or revocations by the Department
  - Permit modifications, suspensions or revocations by the Department
  - Permit Modifications, Suspensions and Revocations by the Department

#### Facility Level

- Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS
- Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS



**DEC GENERAL CONDITIONS**

**\*\*\*\* General Provisions \*\*\*\***

**For the purpose of your Title V permit, the following section contains state-only enforceable terms and conditions.**

**GENERAL CONDITIONS - Apply to ALL Authorized Permits.**

**Condition 1: Facility Inspection by the Department**

**Applicable State Requirement: ECL 19-0305**

**Item 1.1:**

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

**Item 1.2:**

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

**Item 1.3:**

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

**Condition 2: Relationship of this Permit to Other Department Orders and Determinations**

**Applicable State Requirement: ECL 3-0301.2(m)**

**Item 2.1:**

Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

**Condition 3: Applications for permit renewals, modifications and transfers**

**Applicable State Requirement: 6NYCRR 621.11**

**Item 3.1:**

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

**Item 3.2:**

The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

**Item 3.3:**

Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.



**Condition 4: Applications for Permit Renewals and Modifications**

**Applicable State Requirement: 6NYCRR 621.13**

**Item 4.1:**

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

**Item 4.2:**

The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

**Item 4.3:**

Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

**Condition 5: Permit modifications, suspensions or revocations by the Department**

**Applicable State Requirement: 6NYCRR 621.13**

**Item 5.1:**

The Department reserves the right to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

- a) materially false or inaccurate statements in the permit application or supporting papers;
- b) failure by the permittee to comply with any terms or conditions of the permit;
- c) exceeding the scope of the project as described in the permit application;
- d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

**Condition 1-1: Permit modifications, suspensions or revocations by the Department**

**Applicable State Requirement: 6NYCRR 621.13**

**Item 1-1.1:**

The Department reserves the right to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

- a) materially false or inaccurate statements in the permit application or supporting papers;
- b) failure by the permittee to comply with any terms or conditions of the permit;
- c) exceeding the scope of the project as described in the permit application;
- d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to



the permitted activity.

**Condition 6: Permit Modifications, Suspensions and Revocations by the Department**  
**Applicable State Requirement: 6NYCRR 621.14**

**Item 6.1:**

The Department reserves the right to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

- a) materially false or inaccurate statements in the permit application or supporting papers;
- b) failure by the permittee to comply with any terms or conditions of the permit;
- c) exceeding the scope of the project as described in the permit application;
- d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

**\*\*\*\* Facility Level \*\*\*\***

**Condition 7: Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS**  
**Applicable State Requirement: 6NYCRR 621.6(a)**

**Item 7.1:**

Submission of applications for permit modification or renewal are to be submitted to:  
NYSDEC Regional Permit Administrator  
Region 9 Headquarters  
Division of Environmental Permits  
270 Michigan Avenue  
Buffalo, NY 14203-2999  
(716) 851-7165

**Condition 1-2: Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS**  
**Applicable State Requirement: 6NYCRR 621.6(a)**

**Item 1-2.1:**

Submission of applications for permit modification or renewal are to be submitted to:  
NYSDEC Regional Permit Administrator  
Region 9 Headquarters  
Division of Environmental Permits  
270 Michigan Avenue  
Buffalo, NY 14203-2915  
(716) 851-7165



**Permit Under the Environmental Conservation Law (ECL)**

**ARTICLE 19: AIR POLLUTION CONTROL - TITLE V PERMIT**

**IDENTIFICATION INFORMATION**

Permit Issued To: CHAUTAUQUA COUNTY  
3 N ERIE ST  
MAYVILLE, NY 14757-1007

Facility: CHAUTAUQUA COUNTY LANDFILL  
3889 TOWERVILLE RD  
ELLERY CENTER, NY

Authorized Activity By Standard Industrial Classification Code:  
4911 - ELECTRIC SERVICES  
4953 - REFUSE SYSTEMS

Permit Effective Date:

Permit Expiration Date:



## LIST OF CONDITIONS

### FEDERALLY ENFORCEABLE CONDITIONS

#### Facility Level

- 23 6NYCRR 201-6: Emission Unit Definition
- 1-1 6NYCRR 201-6: Compliance Certification
- 1-2 6NYCRR 201-6.5(g): Non Applicable requirements
- 24 : Non Applicable requirements
- 25 : Standards for Emissions from MSW Landfills
- 26 : Collection system for waste-in-place for 2 or 5 years
- 27 : Compliance Certification
- 28 : Compliance Certification
- 29 : Compliance Certification
- 30 : Compliance Certification
- 31 : NMOC Calculation - Waste Deposition KNOWN
- 32 : Compliance Certification
- 33 : System NMOC Emission Rate
- 34 : Use of emission factors
- 35 : System Efficiency
- 36 : Gas Collection System Compliance
- 37 : Well Placement
- 38 : Surface Methane Monitoring
- 39 : Instrument Specs for Surface Methane Analyzer
- 40 : Compliance Certification
- 41 : Open Flare with Electronic Ignition
- 42 : Monitoring of Operations - Other Control Devices
- 43 : Surface methane monitoring
- 44 : Compliance Certification
- 45 : Reporting Requirements
- 46 : Compliance Certification
- 47 : Compliance Certification
- 48 : Compliance Certification
- 49 : Compliance Certification
- 50 : Compliance Certification
- 51 : Compliance Certification
- 1-3 6NYCRR 212.4(a): Compliance Certification
- 1-4 40CFR 60.4246, NSPS Subpart JJJJ: Subpart A provisions that apply to facilities subject to Subpart JJJJ
- 1-5 40CFR 60.752(b)(2), NSPS Subpart WWW: Standards for air emissions from MSW landfills
- 1-6 40CFR 60.752(b)(2)(iii)(C), NSPS Subpart WWW: Compliance Certification
- 1-7 40CFR 60.752(b)(2)(iii)(C), NSPS Subpart WWW: Compliance Certification
- 1-8 40CFR 60.753(a), NSPS Subpart WWW: Operational standards for collection and control systems
- 1-9 40CFR 60.753(b), NSPS Subpart WWW: Compliance Certification
- 1-10 40CFR 60.753(c), NSPS Subpart WWW: Compliance Certification
- 1-11 40CFR 60.753(c), NSPS Subpart WWW: Compliance Certification
- 1-12 40CFR 60.753(d), NSPS Subpart WWW: Compliance Certification
- 1-13 40CFR 60.753(e), NSPS Subpart WWW: Compliance Certification
- 1-14 40CFR 60.753(f), NSPS Subpart WWW: Compliance Certification
- 1-15 40CFR 60.755(a), NSPS Subpart WWW: Compliance Provisions -



- collection system
- 1-16 40CFR 60.755(b), NSPS Subpart WWW: Compliance Provisions - wells
- 1-17 40CFR 60.755(c), NSPS Subpart WWW: Compliance Provisions - surface methane
- 1-18 40CFR 60.755(d), NSPS Subpart WWW: Compliance Provisions - instrumentation specifications
- 1-19 40CFR 60.755(e), NSPS Subpart WWW: Compliance Provisions - Start-up, shutdown, or malfunction
- 1-20 40CFR 60.756(a), NSPS Subpart WWW: Compliance Certification
- 1-21 40CFR 60.756(c), NSPS Subpart WWW: Compliance Certification
- 1-22 40CFR 60.756(d), NSPS Subpart WWW: Monitoring of Operations - Other devices
- 1-23 40CFR 60.756(f), NSPS Subpart WWW: Compliance Certification
- 1-24 40CFR 60.757(a), NSPS Subpart WWW: Reporting requirements - Initial design capacity
- 1-25 40CFR 60.757(b), NSPS Subpart WWW: Reporting requirements - NMOC emission rate
- 1-26 40CFR 60.757(c), NSPS Subpart WWW: Reporting Requirements - Collection and Control System Design Plan
- 1-27 40CFR 60.757(d), NSPS Subpart WWW: Reporting Requirements - Closure Report
- 1-28 40CFR 60.757(e), NSPS Subpart WWW: Reporting Requirements - Control Equipment Removal
- 1-29 40CFR 60.757(f), NSPS Subpart WWW: Compliance Certification
- 1-30 40CFR 60.757(g), NSPS Subpart WWW: Reporting requirements - Collection and control system
- 1-31 40CFR 60.758(a), NSPS Subpart WWW: Compliance Certification
- 1-32 40CFR 60.758(b), NSPS Subpart WWW: Compliance Certification
- 1-33 40CFR 60.758(c), NSPS Subpart WWW: Compliance Certification
- 1-34 40CFR 60.758(d), NSPS Subpart WWW: Compliance Certification
- 1-35 40CFR 60.758(e), NSPS Subpart WWW: Compliance Certification
- 1-36 40CFR 60.759(a), NSPS Subpart WWW: Specifications for active collection systems
- 1-37 40CFR 60.759(b), NSPS Subpart WWW: Specifications for active collection systems
- 1-38 40CFR 60.759(c), NSPS Subpart WWW: Specifications for active collection systems
- 52 40CFR 63.1945, Subpart AAAA: Compliance Certification

**Emission Unit Level**

- 55 6NYCRR 201-6: Emission Point Definition By Emission Unit
- 56 6NYCRR 201-6: Process Definition By Emission Unit

**EU=1-LFGAS,Proc=GAS,ES=01FLR**

57 : Compliance Certification

**EU=1-LFGTE**

- 1-39 6NYCRR 201-6: Compliance Certification
- 58 : Compliance Certification
- 59 : Compliance Certification
- 60 : Compliance Certification
- 61 40CFR 60, NSPS Subpart JJJJ: Compliance Certification
- 1-40 40CFR 60.4230(a)(4)(i), NSPS Subpart JJJJ: Applicability of facilities subject to Subpart JJJJ



- 1-41 40CFR 60.4233(e), NSPS Subpart JJJJ: Compliance Certification
- 1-42 40CFR 60.4233(e), NSPS Subpart JJJJ: Compliance Certification
- 1-43 40CFR 60.4233(e), NSPS Subpart JJJJ: Compliance Certification
- 1-44 40CFR 60.4234, NSPS Subpart JJJJ: Length of time a facility is subject to Subpart JJJJ
- 1-45 40CFR 60.4236(b), NSPS Subpart JJJJ: Deadline for installation
- 1-46 40CFR 60.4243(b)(2)(ii), NSPS Subpart JJJJ: Compliance Certification
- 1-47 40CFR 60.4244, NSPS Subpart JJJJ: Test methods and procedures
- 1-48 40CFR 60.4245(a), NSPS Subpart JJJJ: Compliance Certification
- 1-49 40CFR 60.4245(c), NSPS Subpart JJJJ: Compliance Certification
- 1-50 40CFR 60.4245(d), NSPS Subpart JJJJ: Performance test requirements
- 1-51 40CFR 63.6590(a)(2), Subpart ZZZZ: New RICE at an area source of HAP
- 62 40CFR 63.6590(a)(2), Subpart ZZZZ: Compliance Certification
- 1-52 40CFR 63.6590(c), Subpart ZZZZ: Stationary RICE subject to regulations under 40 CFR Part 60
- 1-53 40CFR 63.6595(a)(7), Subpart ZZZZ: Compliance Dates for new RICE at an area source of HAP
- 1-54 40CFR 63.6665, Subpart ZZZZ: Compliance Certification

**STATE ONLY ENFORCEABLE CONDITIONS**

**Facility Level**

- 63 ECL 19-0301: Contaminant List
- 1-55 6NYCRR 201-1.4: Unavoidable noncompliance and violations
- 1-56 6NYCRR 211.2: Air pollution prohibited



**FEDERALLY ENFORCEABLE CONDITIONS**

**\*\*\*\* Facility Level \*\*\*\***

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

**The items listed below are not subject to the annual compliance certification requirements under Title V. Permittees may also have other obligations under regulations of general applicability.**

**Item A: Emergency Defense - 6NYCRR Part 201-1.5**

An emergency constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An emergency occurred and that the facility owner and/or

operator can identify the cause(s) of the emergency;

(2) The equipment at the permitted facility causing the emergency was at the time being properly operated;

(3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

(4) The facility owner and/or operator notified the Department

within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner and/or operator seeking to establish the occurrence of an emergency has the burden of proof.

(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

**Item B: Public Access to Recordkeeping for Title V Facilities - 6NYCRR Part 201-1.10(b)**

The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.



- Item C: Timely Application for the Renewal of Title V Permits - 6 NYCRR Part 201-6.3(a)(4)**  
Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.
- Item D: Certification by a Responsible Official - 6 NYCRR Part 201-6.3(d)(12)**  
Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- Item E: Requirement to Comply With All Conditions - 6 NYCRR Part 201-6.5(a)(2)**  
The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
- Item F: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR Part 201-6.5(a)(3)**  
This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- Item G: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR Part 201-6.5(a)(5)**  
It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.
- Item H: Property Rights - 6 NYCRR Part 201-6.5(a)(6)**  
This permit does not convey any property rights of any sort or any exclusive privilege.
- Item I: Severability - 6 NYCRR Part 201-6.5(a)(9)**



If any provisions, parts or conditions of this permit are found to be invalid or are the subject of a challenge, the remainder of this permit shall continue to be valid.

**Item J: Permit Shield - 6 NYCRR Part 201-6.5(g)**

All permittees granted a Title V facility permit shall be covered under the protection of a permit shield, except as provided under 6 NYCRR Subpart 201-6. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof. Nothing herein shall preclude the Department from revising or revoking the permit pursuant to 6 NYCRR Part 621 or from exercising its summary abatement authority. Nothing in this permit shall alter or affect the following:

- i. The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;
- ii. The liability of a permittee of the Title V facility for any violation of applicable requirements prior to or at the time of permit issuance;
- iii. The applicable requirements of Title IV of the Act;
- iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

**Item K: Reopening for Cause - 6 NYCRR Part 201-6.5(i)**

This Title V permit shall be reopened and revised under any of the following circumstances:

- i. If additional applicable requirements under the Act become applicable where this permit's remaining term is three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the



effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.

ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.

iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

Proceedings to reopen and issue Title V facility permits shall follow the same procedures as apply to initial permit issuance but shall affect only those parts of the permit for which cause to reopen exists.

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

**Item L: Permit Exclusion - ECL 19-0305**

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.



**Item M: Federally Enforceable Requirements - 40 CFR 70.6(b)**

All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

**The following conditions are subject to annual compliance certification requirements for Title V permits only.**

**Condition 23: Emission Unit Definition**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:6NYCRR 201-6**

**Item 23.1(From Mod 1):**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: 1-LFGAS

Emission Unit Description:

Emission Unit 1-LFGAS consists of the landfill area that generates landfill gas (LFG), an active gas collection system (LFGCS), and an open flare system to combust the LFG.

**Item 23.2(From Mod 1):**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: 1-LFGTE

Emission Unit Description:

Emission Unit 1-LFGTE consists of six (6) lean-burn Caterpillar, Inc. Model G3520C IC engines connected to individual electricity generators. The emission unit includes ancillary equipment that supports the electricity generation operations.

Building(s): ENGBLDG

**Condition 1-1: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:6NYCRR 201-6**

**Item 1-1.1:**

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY998-20-0 NMOC - LANDFILL USE ONLY



**Item 1-1.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

1. Chautauqua County Landfill shall maintain records to document the combined total actual waste and alternate daily cover (ADC) material received per delivery. The actual total annual waste acceptance and ADC rates shall be determined by January 30 of each calendar year. The records shall be made available upon request from the Department during normal business hours.
2. If the combined total of the actual annual waste and ADC acceptance rate exceeds 380,896 tons, the facility shall input the actual rate into the Landfill Gas Emissions Computer Model (LandGEM) and re-evaluate the emissions from the landfill. A report of the LandGEM results and re-evaluation of the applicability to New Source Review (6NYCRR Part 231-2), Prevention of Significant Deterioration (40CRF52.21), and 6NYCRR Part 227-2 shall be provided to the Department within 30 days of the recorded waste increase.
3. The site-specific and default parameters used in the analysis for Chautauqua County included:
  - (i) Permitted waste design capacity = 7,340,634 Mg;
  - (ii) Maximum annual waste acceptance rate and alternate daily cover (ADC) equal to 380,896 tons per year.
  - (iii) actual measured NMOC concentration = 292 ppmv as hexane
  - (iv) Default values of  $Lo = 170 \text{ m}^3/\text{Mg}$ ,  $k = 0.05$ , methane concentration = 50%.
4. For the purposes of determining waste acceptance rates, waste shall include: municipal solid waste, industrial waste, construction and demolition debris, contaminated soil, sludge, tire waste, and any other solid waste material. Inert materials such as ash, asbestos and other materials may be excluded from the annual waste acceptance rate calculation upon written request and approval by the Region 9 Division of Air Resources. Such a request shall provide sufficient justification the waste in question is not degradable and does not contribute to landfill gas generation.

Parameter Monitored: MUNICIPAL SOLID WASTE

Upper Permit Limit: 380896 tons per year

Monitoring Frequency: PER DELIVERY



Averaging Method: ANNUAL TOTAL

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 1-2: Non Applicable requirements  
Effective for entire length of Permit**

**Applicable Federal Requirement: 6NYCRR 201-6.5(g)**

**Replaces Condition(s) 24**

**Item 1-2.1:**

This section contains a summary of those requirements that have been specifically identified as being not applicable to this facility and/or emission units, emission points, processes and/or emission sources within this facility. The summary also includes a justification for classifying any such requirements as non-applicable.

(From Mod 1) 6NYCRR 227-2

Reason: Facility wide NOx PTE emissions, including the proposed vertical expansion, are 79.3 tons/yr which is less than the NOx RACT threshold of 100 tons/yr. Therefore, the combustion sources at the landfill are not subject to the NOx RACT requirements of 6NYCRR Part 227-2.

6NYCRR 231-2

Reason: Total facility potential NOx and VOC emissions from the proposed vertical expansion and the existing landfill are less than 100 and 50 tons/year, respectively. Therefore, the facility is not a major source of non-attainment contaminants and is not subject to New Source Review requirements.

40CFR 52-A.21

Reason: The existing landfill is a major source of carbon monoxide (CO) emissions. As such, the proposed vertical expansion project emissions of the attainment area pollutants were compared against the PSD significant emission rates. The project PTE of the following pollutants and the corresponding PSD significant emission rate are summarized below:

	PTE	
PSD		
NOx	0.5	40 tpy
CO	9.0	100 tpy
SO2	0.04	40 tpy
PM-10	0.2	15 tpy
PM-2.5	0.2	10 tpy

As indicated above, the proposed vertical expansion will not cause emissions to increase above the significance thresholds and, therefore, is not subject to PSD review.

40CFR 64

Reason: As stated in 40CFR64.2(b)(1)(i), the requirements of CAM



shall not apply to emission limits or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act. The EPA published a proposal for regulation of new MSW landfills under section 111(b) and for existing MSW landfills under section 111(d) of the CAA in the Federal Register on May 30, 1991 (56 FR 24468). The resulting emission limits for municipal solid waste landfills became effective on March 12, 1996 under 40CFR60 Subpart WWW. The Chautauqua County Landfill is subject to the requirements of Subpart WWW and is therefore, exempt from the CAM requirements of 40 CFR Part 64.

**Condition 24: Non Applicable requirements**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Replaced by Condition(s) 1-2**

**Item 24.1:**

This section contains a summary of those requirements that have been specifically identified as being not applicable to this facility and/or emission units, emission points, processes and/or emission sources within this facility. The summary also includes a justification for classifying any such requirements as non-applicable.

6NYCRR 227-2

Reason: The existing facility nitrogen oxide (NO<sub>x</sub>) emissions emitted by the flare results in a potential to emit (PTE) of 10 tons per year (tpy). The proposed landfill gas to energy project has a NO<sub>x</sub> PTE of 69 tpy. The resulting facility-wide NO<sub>x</sub> PTE is 79 tpy which is less than the major facility size threshold of 100 tpy. As such, the combustion sources are not subject to the NO<sub>x</sub> RACT requirements of 6NYCRR Part 227-2.

6NYCRR 231-2

Reason: The existing facility is a non-major source of non-attainment area pollutants, including volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>). As such, the proposed project emissions were compared with the major source thresholds of 50 tons per year (tpy) VOC and 100 tpy NO<sub>x</sub>. The proposed project, by itself, is a minor source of VOC and NO<sub>x</sub> emissions. In addition, the facility remains a non-major source after the project is complete. The total facility-wide VOC and NO<sub>x</sub> PTE emissions, including emissions from the existing landfill and the proposed landfill gas to energy (LFGTE) project, are 15 tpy VOC and 79 tpy NO<sub>x</sub>. Therefore, the facility is not a major source of non-attainment contaminants and is not subject to New Source Review requirements.

40CFR 52-A.21

Reason: The existing facility is a minor source of attainment area



pollutants including nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>) and particulate matter less than 10 microns (PM-10). As such, the proposed project emissions were compared with the major source threshold of 250 tons per year (tpy) to determine whether or not the project is subject to Prevention of Significant Deterioration (PSD) for the attainment area pollutants. The project potential to emit (PTE) for all these contaminants were below 250 tpy and are as follows:

NO<sub>x</sub> = 69 tpy  
CO = 200 tpy  
SO<sub>2</sub> = 29 tpy  
PM-10 = 12 tpy

Thus, this project is not subject to PSD. However, total facility-wide PTE emissions after the project is complete will be major for CO. Specifically, the existing facility CO emissions emitted by the flare results in a PTE of 190 tpy. The proposed LFGTE project has a CO PTE of 200 tpy. Both the existing facility and proposed project emissions, by themselves, are less than the major source threshold of 250 tpy. However, the resulting facility-wide CO PTE is 390 tpy which is greater than the major facility size threshold of 250 tpy. As such, the facility will be evaluated as an existing major source for any future PSD projects.

40CFR 64

Reason: Chautauqua County does not operate Pollutant-Specific Emission Units (PSEU) at a major source that use a control device to achieve compliance with any emission limitation or standard. Therefore, Chautauqua County Landfill is not subject to the Compliance Assurance Monitoring (CAM) requirements.

**Condition 25: Standards for Emissions from MSW Landfills**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 25.1: The owner or operator of this MSW landfill, having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, will submit an initial design capacity report to the Department. This report must also include the calculated non-methane organic compound (NMOC) emission rate for the landfill. This emission rate will be calculated using the procedures defined in 6 NYCRR 360-2.21(e). This emission rate will be re-calculated on an annual basis, except as provided in 6 NYCRR 360-2.21(h)(2)(i)(b').**

If the calculated NMOC emission rate is less than 50 megagrams per year, the owner or operator will:



- submit an annual emission report to the Department; and

- recalculate the NMOC emission rate annually until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year.

When the calculated NMOC emission rate exceeds 50 megagrams per year the owner or operator will submit a collection and control system design and permit application, prepared by a professional engineer, to the Department within 1 year. The landfill gas collection system will be addressed in a Part 360 application or modification, while the landfill gas control system will be addressed in a Part 201 permit application or modification. The collection and control system, that captures the gas generated within the landfill, will be installed within 30 months after the first annual report in which the NMOC emission rate equals or exceeds 50 megagrams per year.

The active collection system will:

- be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;

- collect gas from each area, cell or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more if active or 2 years or more if closed or at final grade;

- collect gas at a sufficient extraction rate;

- be designed to minimize off-site migration of subsurface gas.

**Condition 26: Collection system for waste-in-place for 2 or 5 years  
Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 26.1:**

The owner or operator of this landfill gas collection system will operate the collection system such that gas is collected from each area, cell or group of cells in the landfill in which solid waste has been in place for 5 years or more if active or 2 years or more if inactive

**Condition 27: Compliance Certification  
Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 27.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 27.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS



Monitoring Description:

The collection system shall be operated with a negative pressure at each wellhead, except under the following conditions:

1. A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in 6 NYCRR Part 208.8.
2. The use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan.
3. A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Department.

If monitoring demonstrates that the operational requirements are not met, corrective action shall be taken as specified in 6 NYCRR Part 208.6(a)(3) through (5). If corrective actions are taken as specified in 6 NYCRR Part 208.6, the monitored exceedance is not a violation of the operational requirements in this section, however the permittee shall report these episodes as deviations.

Work Practice Type: PARAMETER OF PROCESS MATERIAL  
Process Material: LANDFILL GAS  
Parameter Monitored: PRESSURE  
Upper Permit Limit: 0 pounds per cubic inch  
Monitoring Frequency: MONTHLY  
Averaging Method: 1 HOUR MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2009.  
Subsequent reports are due every 6 calendar month(s).

**Condition 28: Compliance Certification**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 28.1:**  
The Compliance Certification activity will be performed for the Facility.

**Item 28.2:**  
Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC



**OPERATIONS**

**Monitoring Description:**

Each interior wellhead in the collection system shall be operated with an oxygen level in the landfill gas less than 5%. The owner or operator may establish a higher operating oxygen level at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

If monitoring demonstrates that the operational requirements are not met, corrective action shall be taken as specified in 6 NYCRR Part 208.6(a)(3) through (5). If corrective actions are taken as specified in 6 NYCRR Part 208.6, the monitored exceedance is not a violation of the operational requirements in this section, however the permittee shall report these episodes as deviations.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: LANDFILL GAS

Parameter Monitored: OXYGEN CONTENT

Upper Permit Limit: 5 percent

Monitoring Frequency: MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2009.

Subsequent reports are due every 12 calendar month(s).

**Condition 29: Compliance Certification**

**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 29.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 29.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

**Monitoring Description:**

Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees centigrade. The owner or operator may establish a higher operating temperature at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.



If monitoring demonstrates that the operational requirements are not met, corrective action shall be taken as specified in 6 NYCRR Part 208.6(a)(3) through (5). If corrective actions are taken as specified in 6 NYCRR Part 208.6, the monitored exceedance is not a violation of the operational requirements in this section, however the permittee shall report these episodes as deviations.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: LANDFILL GAS

Parameter Monitored: TEMPERATURE

Upper Permit Limit: 55 degrees Centigrade (or Celsius)

Monitoring Frequency: MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2009.

Subsequent reports are due every 12 calendar month(s).

**Condition 30: Compliance Certification**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 30.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 30.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: AMBIENT AIR MONITORING

Monitoring Description:

The collection system will be operated so that the methane concentration is less than 500 ppm above background on the surface of the landfill. The owner or operator will conduct surface testing around the perimeter of the collection area along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. Areas with steep slopes or other dangerous areas may be excluded from the surface testing. A surface monitoring design plan will be developed that includes a topographical map with the monitoring route. This plan will be submitted to the Department for review and approval within 60 days of the issuance of this permit.

If monitoring demonstrates that the operational requirements are not met, corrective action shall be taken as specified in 6 NYCRR Part 208.6(c). If corrective actions are taken as specified in 6 NYCRR Part



208.6(c)(4), the monitored exceedance is not a violation of the operational requirements in this section, however the permittee shall report these episodes as deviations.

Parameter Monitored: METHANE  
Upper Permit Limit: 500 parts per million (by volume)  
Monitoring Frequency: QUARTERLY  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 1/30/2009.  
Subsequent reports are due every 6 calendar month(s).

**Condition 31: NMOG Calculation - Waste Deposition KNOWN**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 31.1:**

The following equation will be used to determine the NMOC emission rate, if the year-to-year solid waste acceptance rate is known:

$$NMOC = \sum_{i=1}^n \{2 k L_0 M_i e^{-kt_i} CNMOC (3.6 \times 10^{-9})\};$$

where the NMOC emission rate is calculated for each cell (i) and n = the number of cells that are applicable to this rule and the other factors for this equation are used as defined in 6 NYCRR Part 208.5(a)(1)(i)

**Condition 32: Compliance Certification**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 32.1:**

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):  
CAS No: 0NY998-20-0 NMOC - LANDFILL USE ONLY

**Item 32.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

1. Applicability and compliance determinations for certain regulations require the landfill to estimate landfill gas emission rates using the equation identified in Part 208.5(a)(1)(i) and to estimate the projected maximum gas generation flow rate using the equation



specified in Part 208.6(a). The regulations evaluated for Chautauqua Landfill included the New York State Regulation for Controlling Gas Emissions from Landfills (6NYCRR Part 208), New Source Review (6NYCRR Part 231-2), and Prevention of Significant Deterioration (40CFR52.21).

2. The Landfill Gas Emissions Computer Model (LandGEM) uses these equations to generate the emissions and gas generation flow rates from the landfill. LandGEM relies on several input parameters to estimate emissions. The input parameters can either be site-specific data or default parameters if no site-specific data are available. Site-specific parameters used in LandGEM, which are typically available, include the permitted waste design capacity of the landfill, the permitted or actual year-to-year solid waste acceptance rates and the actual NMOC concentration. The site-specific and default parameters used in the analysis for Chautauqua County included:

- (i) Permitted waste design capacity = 5,900,000 Mg;
- (ii) Maximum annual waste acceptance rate and alternate daily cover (ADC) equal to 380,896 tons per year.
- (iii) actual measured NMOC concentration = 292 ppmv as hexane
- (iv) Default values of  $Lo = 170 \text{ m}^3/\text{Mg}$ ,  $k = 0.05$ , methane concentration = 50%.

3. For the purposes of determining waste acceptance rates, waste shall include: municipal solid waste, industrial waste, construction and demolition debris, contaminated soil, sludge, tire waste, and any other solid waste material. Inert materials such as ash, asbestos and other materials may be excluded from the annual waste acceptance rate calculation upon written request and approval by the Region 9 Division of Air Resources. Such a request shall provide sufficient justification the waste in question is not degradable and does not contribute to landfill gas generation.

4. Chautauqua County Landfill shall maintain records to document the actual waste and ADC received per delivery. The combined total actual annual waste and ADC acceptance rates shall be determined by January 30 of each calendar year. The records shall be made available upon request from the Department during normal business hours.

5. If the combined total of the actual annual waste and ADC acceptance rate exceeds 380,896 tons, the facility shall input the actual rate into LandGEM and re-evaluate



the emissions from the landfill. A report of the LandGEM results and re-evaluation of the applicability to 6NYCRR Part 231-2 and 40CRF52.21 shall be provided to the Department within 30 days of the recorded waste increase.

Monitoring Frequency: PER DELIVERY

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 33: System NMOC Emission Rate**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 33.1:**

After installation of a collection and control system, the owner or operator will calculate the NMOC emission rate, for the purposes of determining when the system can be removed, using the following equation:

$MNMOC = 1.89 \times 10^{-3} (QLFG)(CNMOC)$ ; where MNMOC = mass emission rate of NMOC (megagrams/year), QLFG (the flow of landfill gas to the system) is determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device and the concentration of NMOC (CNMOC) is determined by collecting and analyzing landfill gas using the procedures in Method 25, 25C or Method 18 of Appendix A of 40 CFR Part 60. The system may be removed if the NMOC emission rate drops below 50 megagrams per year.

**Condition 34: Use of emission factors**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 34.1:**

When calculating emissions for PSD purposes, the owner or operator of each MSW landfill subject to the provisions of this section shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in 40 CFR section 51.166 or 52.21 (see section 200.9 of 6 NYCRR 200) using AP-42 or other approved measurement procedures

**Condition 35: System Efficiency**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 35.1:**

For the performance test required in 6 NYCRR Part 208.3(b)(2)(iii)(b), Method 25C, 25 or Method 18 of Appendix A of 40 CFR 60 shall be used to determine compliance with the 98% weight efficiency or the 20 ppmv outlet concentration level. The following equation shall be used to calculate efficiency:

$$\text{Control Efficiency} = \frac{\text{NMOC}_{\text{in}} - \text{NMOC}_{\text{out}}}{\text{NMOC}_{\text{in}}}$$



**Condition 36: Gas Collection System Compliance**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 36.1:**

Except as provided in 6 NYCRR Part 208.3(b)(2)(i)(b), the specified methods in paragraphs (1) through (6) of this subdivision shall be used to determine whether the gas collection system is in compliance with 6 NYCRR Part 208.3(b)(2)(i).

(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with 6 NYCRR Part 208.3(b)(2)(i)(a)(1), one of the following equations shall be used. The k and Lo kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the department. If k has been determined as specified in 6 NYCRR Part 208.5(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

(i) For sites with unknown year-to-year solid waste acceptance rate:

$$Q_m = 2L_o R (e^{-kc} - e^{-kt})$$

where,

Q<sub>m</sub> = maximum expected gas generation flow rate, cubic meters per year

L<sub>o</sub> = methane generation potential, cubic meters per megagram solid waste

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, year<sup>-1</sup>

t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years

c = time since closure, years (for an active landfill c = 0 and e<sup>-kc</sup> = 1)

(ii) For sites with known year-to-year solid waste acceptance rate:

$$Q_M = \sum 2 k L_o M (e^{-kt})$$

where,

Q<sub>M</sub> = maximum expected gas generation flow rate, cubic meters per year

k = methane generation rate constant, year<sup>-1</sup>



Lo = methane generation potential, cubic meters per megagram solid waste

Mi = mass of solid waste in the ith section, megagrams

ti = age of the ith section, years

(iii) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in subparagraph (i) and (ii) of this paragraph. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in subparagraph (i) or (ii) of this paragraph or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

(2) For the purposes of determining sufficient density of gas collectors for compliance with 6 NYCRR Part 208.3(b)(2)(ii)(a)(2), the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the department, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

(3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with 6 NYCRR Part 208.3(b)(2)(ii)(a)(3), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within five calendar days, except for the three conditions allowed under 6 NYCRR Part 208.4(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the department for approval.

(4) Owners or operators are not required to expand the system as required in paragraph (3) of this subdivision during the first 180 days after gas collection system startup.

(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in 6 NYCRR Part 208.4(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within five calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the department for approval.

(6) An owner or operator seeking to demonstrate compliance with 6 NYCRR Part 208.3(b)(2)(ii)(a)(4) through the use of a collection system not conforming to the specifications provided in 6 NYCRR Part 208.10, shall provide information satisfactory to the USEPA as specified in 6 NYCRR Part 208.3(b)(2)(i)(c) demonstrating that off-site migration is being controlled.

**Condition 37: Well Placement**

**Effective between the dates of 10/29/2008 and Permit Expiration Date**



**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 37.1:**

For purposes of compliance with 6 NYCRR Part 208.4(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in 6 NYCRR Part 208.3(b)(2)(i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

- (1) five years or more if active; or
- (2) two years or more if closed or at final grade.

**Condition 38: Surface Methane Monitoring**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 38.1:**

The following procedures shall be used for compliance with the surface methane operational standard as provided in 6 NYCRR Part 208.4(d).

- 1) After installation of the collection system, the owner or operator shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in 6 NYCRR Part 208.6(d)
- 2) The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.
- 3) Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of 40 CFR Part 60 Appendix A, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.
- 4) Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in (i) through (v) below shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of 6 NYCRR Part 208.4(d).
  - i) The location of each monitored exceedance shall be marked and the location recorded.
  - ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.
  - iii) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in (5) below shall be taken, and no further monitoring of that location is required until the action specified in (5) has been taken.
  - iv) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in (ii) or (iii) above shall be re-monitored 1 month from the initial exceedance. If the



1-month remonitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month remonitoring shows an exceedance, the actions specified in (iii) or (v) shall be taken.

v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.

5) The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis

**Condition 39: Instrument Specs for Surface Methane Analyzer  
Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 39.1:**

Each owner or operator seeking to comply with the provisions in 6 NYCRR Part 208.6(c) shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

- 1) The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of 40 CFR Part 60 Appendix A, except that "methane" shall replace all references to VOC.
- 2) The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.
- 3) To meet the performance evaluation requirements in section 3.1.3 of Method 21 of 40 CFR Part 60 Appendix A, the instrument evaluation procedures of section 4.4 of Method 21 shall be used.
- 4) The calibration procedures provided in section 4.2 of Method 21 of 40 CFR Part 60 Appendix A shall be followed immediately before commencing a surface monitoring survey
- 5) The provisions of 6 NYCRR Part 208.6(d) apply at all times, except during periods of start-up, shutdown or malfunction, provided that the duration of the start-up, shutdown or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

**Condition 40: Compliance Certification  
Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 40.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 40.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES



Monitoring Description:

Each owner or operator seeking to comply with 6 NYCRR Part 208.3(b)(2)(ii)(a) with an active gas collection system shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:

1. Measure the gauge pressure in the gas collection header, as provided in 6 NYCRR Part 208.6(a)(3); and
2. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in 6 NYCRR Part 208.6(a)(5); and
3. Monitor temperature of the landfill gas on a monthly basis as provided in 6 NYCRR Part 208.6(a)(5).

Monitoring Frequency: MONTHLY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2009.

Subsequent reports are due every 6 calendar month(s).

**Condition 41: Open Flare with Electronic Ignition**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 41.1:**

For landfills that use open flares to control landfill gas, the owner or operator of the landfill will install, calibrate, maintain and operate according to the manufacturer's specifications the following equipment:

1. A heat sensing device at the pilot light or flame itself to indicate the continuous presence of a flame or, for flares with electronic ignition, an indicator light to verify the presence of the ignition spark;
2. A device that records flow, at least every 15 minutes, to, or bypass of, the flare.

**Condition 42: Monitoring of Operations - Other Control Devices**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 42.1:**

For landfills that use a device other than an open flare or enclosed combustor to control the landfill gas, the owner or operator will provide information satisfactory to the Department describing the operation of the control device, the operating parameters that would indicate proper performance and appropriate monitoring procedures. The Department will review the information and either approve it or request that additional information be submitted.

**Condition 43: Surface methane monitoring**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**



**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 43.1:**

Each owner or operator seeking to demonstrate compliance with section 208.6(c) of this Part, shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in section 208.6(d) of this Part. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the monitoring frequency for that landfill to quarterly monitoring

**Condition 44: Compliance Certification**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 44.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 44.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Each owner or operator of a landfill seeking to comply with 6 NYCRR Part 208.3(b)(2) using an active collection system designed in accordance with 6 NYCRR Part 208.3(b)(2)(ii) shall submit to the Department annual reports of the recorded information in paragraphs (1) through (6) below. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR Part 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under 6 NYCRR Part 208.9(c).

- 1) Value and length of time for exceedance of applicable parameters monitored under 6 NYCRR Part 208.7(a), (b), (c) and (d).
- 2) Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under 6 NYCRR Part 208.7.
- 3) Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.
- 4) All periods when the collection system was not operating in excess of 5 days.
- 5) The location of each exceedance of the 500 parts



per million methane concentration as provided in 6 NYCRR Part 208.4(c) and the concentration recorded at each location for which an exceedance was recorded in the previous month.

6) The date of installation and the location of each well or collection system expansion added pursuant to 6 NYCRR Part 208.6(a)(3), 208.6(b) and 208.6(c)(4).

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2009.

Subsequent reports are due every 6 calendar month(s).

**Condition 45: Reporting Requirements**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 45.1:**

Each owner or operator seeking to comply with 6 NYCRR Part 208.3(b)(2)(iii) shall include the following information with the initial performance test report required under 40 CFR Part 60.8:

- 1) A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;
- 2) The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;
- 3) The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;
- 4) The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area; and
- 5) The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and
- 6) The provisions for the control of off-site migration.

**Condition 46: Compliance Certification**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**



**Item 46.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 46.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Except as provided in 6 NYCRR Part 208.3(b)(3)(i)(a), each owner or operator of an MSW landfill subject to the provisions of 6 NYCRR Part 208.3(b) shall keep for at least 7 years up-to-date, readily accessible, on-site records of the maximum design capacity report which triggered 6 NYCRR Part 208.3(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: ANNUAL TOTAL

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2009.

Subsequent reports are due every 12 calendar month(s).

**Condition 47: Compliance Certification**

**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 47.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 47.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Except as provided in 6 NYCRR Part 208.3(b)(2)(i)(b), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in paragraphs (1) and (2) below as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 7 years. Records of the control device vendor specifications shall be maintained until removal.

1) Where an owner or operator seeks to demonstrate compliance with 6 NYCRR Part 208.3(b)(2)(ii):



i) The maximum expected gas generation flow rate as calculated in 6 NYCRR Part 208.6(a)(1) . The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Department.

ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 6 NYCRR Part 208.10(a)(1)).

2) Where an owner or operator seeks to demonstrate compliance with 6 NYCRR Part 208.3(b)(2)(iii) through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR Part 60.18; continuous records of the flare pilot flame, or presence of ignition spark if an electronic ignition system is used for the flare, or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2009.

Subsequent reports are due every 6 calendar month(s).

**Condition 48: Compliance Certification**

**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 48.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 48.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Except as provided in 6 NYCRR Part 208.3(b)(2)(i)(b'), each owner or operator of a controlled landfill shall keep for 7 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in 6 NYCRR Part 208.7) as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.



2) Each owner or operator shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under 6 NYCRR Part 208.7.

4) Each owner or operator seeking to comply by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring, or the presence of ignition spark if an electronic ignition system is used, specified under 6 NYCRR Part 208.7(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2009.

Subsequent reports are due every 6 calendar month(s).

**Condition 49: Compliance Certification**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 49.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 49.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Except as provided in 6 NYCRR Part 208.3(b)(2)(i)(b), each owner or operator shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

1) Each owner or operator shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under 6 NYCRR Part 208.6(b).

2) Each owner or operator shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in 6 NYCRR Part 208.10(a)(3)(i) as well as any nonproductive areas excluded from collection as provided



in 6 NYCRR Part 208.10(a)(3)(ii).

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2009.

Subsequent reports are due every 6 calendar month(s).

**Condition 50: Compliance Certification**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 50.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 50.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Except as provided in 6 NYCRR Part 208.3(b)(2)(i)(b), each owner or operator shall keep for at least 7 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in 6 NYCRR Part 208.4, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2009.

Subsequent reports are due every 6 calendar month(s).

**Condition 51: Compliance Certification**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 51.1:**

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY998-20-0 NMOG - LANDFILL USE ONLY

**Item 51.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

§208.10 Specifications for active collection systems



(a) Each owner or operator seeking to comply with section 208.3(b)(2)(i) of this Part shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the USEPA as provided in section 208.3(b)(2)(i)(c) and (d) of this Part:

(1) The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expendability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.

(2) The sufficient density of gas collection devices determined in paragraph (1) of this subdivision shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

(3) The placement of gas collection devices determined in paragraph (1) of this subdivision shall control all gas producing areas, except as provided by subparagraphs (i) and (ii) of this paragraph.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under section 208.9(d) of this Part. The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the department upon request.

(ii) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than one percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the department upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the following equation:

$$Q_i = 2 k L_o M_i (e^{-k t_i}) C N M O C (3.6 \times 10^{-9})$$

where,



$Q_i$  = NMOC emission rate from the  $i$  th section,  
megagrams per year  
 $k$  = methane generation rate constant, year  $-1$   
 $Lo$  = methane generation potential, cubic meters per  
megagram solid waste  
 $M_i$  = mass of the degradable solid waste in the  $i$ th  
section, megagram  
 $t_i$  = age of the solid waste in the  $i$  th section,  
years  
CNMOC = concentration of nonmethane organic compounds,  
parts per million by volume  
 $3.6 \times 10^{-9}$  = conversion factor

(iii) The values for  $k$  and CNMOC, determined in field testing shall be used, if field testing has been performed in determining the NMOC emission rate or the radii of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for  $k$ ,  $Lo$  and CNMOC provided in section 208.5(a)(1)(i) of this Part or the alternative values from section 208.5(a)(5) of this Part shall be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in subparagraph (i) of this paragraph.

(b) Each owner or operator seeking to comply with section 208.3(b)(2)(i)(a) of this Part shall construct the gas collection devices using the following equipment or procedures:

(1) the landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration;

(2) vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of



sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations;

(3) collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

(c) Each owner or operator seeking to comply with section 208.3(b)(2)(i)(a) of this Part shall convey the landfill gas to a control system in compliance with section 208.3(b)(2)(iii) of this Part through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

(1) for existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (2) of this subdivision shall be used; and

(2) for new collection systems, the maximum flow rate shall be in accordance with section 208.6(a)(1) of this Part.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2009.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-3: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 6NYCRR 212.4(a)**

**Item 1-3.1:**

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY998-20-0 NMOG - LANDFILL USE ONLY



**Item 1-3.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

1.) The federal regulation for landfills (40CFR 60 subpart WWW) does not require Chautauqua County to install and operate the landfill gas collection and control system (GCCS) until June 30, 2010. In the interim, Chautauqua County will operate and maintain the existing GCCS in accordance with this permit condition. Once the requirements of 40CFR60 Subpart WWW take effect, then this condition shall no longer be applicable.

2.) The non-methane organic compounds (NMOC) in the landfill gas have been assigned an Environmental Rating of 'A'. This shall require the capture of landfill gas to the best extent practical and the destruction of at least 98% of the NMOC in the collected gas or the installation of Best Available Control Technology (BACT).

3.) Chautauqua County shall operate and maintain the existing GCCS including: (1) active gas collection system; (2) open flare; (3) gas pre-treatment system; and (4) stationary internal combustion engines. Each component of the GCCS shall be monitored as follows:

**ACTIVE GAS COLLECTION AND CONTROL SYSTEM**

a.) Chautauqua Landfill shall monitor the well field using a Landtec GEM 2000 or similar instrument to balance the well field on a monthly basis.

b.) Chautauqua Landfill shall operate each interior wellhead in the gas collection system with a landfill gas temperature less than 55 degrees Celsius and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent.

c.) Chautauqua Landfill may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated temperature does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

d.) Chautauqua Landfill shall operate the collection system with negative pressure at each wellhead except when there is a fire or increased well temperature; use of a geomembrane or synthetic cover; or a decommissioned well.



e.) Chautauqua Landfill shall document the monthly measurements and the records shall be kept on-site and be made available to the Department upon request.

f.) If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance can not be achieved within 15 calendar days of the first measurement, then the facility shall notify the Department within two business days and provide a written report of the results within 30 calendar days along with a proposed program for correction and a schedule for compliance.

#### OPEN FLARE

g.) The flare system shall be operated in accordance with the federal New Source Performance Standards established for open flares (40CFR60.18).

h.) Chautauqua County shall operate the landfill gas flare system when there is excess gas beyond the capacity of the engines. If flaring is needed, Chautauqua County shall maintain a log documenting the description and duration of all periods when the flare system was not operating for a period exceeding 2 hours and report such instances to the Region 9 Division of Air Resources within 2 business days. Upon request, a letter shall be sent to the Department to document the cause of the event and a proposed plan for corrective action.

i.) Chautauqua County must demonstrate compliance with 40CFR60.18 for operation of the new flare installed in 2009. Appropriate data to demonstrate compliance must be collected within 60 days of achieving the maximum production rate but not later than 180 days after initial start-up of the Landfill Gas to Energy Plant. A compliance protocol must be submitted 30 days prior to collecting the data and a final data and analysis submitted within 45 days after the demonstration is complete. The Department must be notified 10 days prior to the scheduled compliance demonstration so a Department representative may be present during the data collection.

j.) On going compliance monitoring and operation of the landfill gas flare system shall include continuous monitoring of the flame and gas flow rate. Chautauqua County shall document and maintain records of the continuous presence of the flare pilot flame and gas flow rate. The records shall be kept on site and be made available to the Department upon request.

#### GAS PRE-TREATMENT SYSTEM



k.) Landfill gas that is collected and used for fuel in an engine or used for subsequent sale as a fuel shall be treated in a treatment system that has an absolute filtration rating of 10 microns or less, lowers the water dew point of the landfill gas by at least 20 degrees Fahrenheit with a de-watering process, and compresses the landfill gas.

l.) Chautauqua County shall operate the gas treatment system at all times when gas is routed to the engines for use or subsequent sale.

m.) Within 180 days of startup, Chautauqua County shall submit to the Department a monitoring plan for proper operation of the gas treatment system. The plan shall describe the monitoring methods used for the filtering, dewatering and compression processes to assure the treatment system operates as designed.

**STATIONARY INTERNAL COMBUSTION ENGINES**

n.) Chautauqua County shall operate the engines in accordance with 40CFR60 Subpart JJJJ, 40CFR63 Subpart ZZZZ and 6NYCRR Part 201-6 permit conditions.

Parameter Monitored: NMOC - LANDFILL USE ONLY

Lower Permit Limit: 98 percent reduction

Reference Test Method: SEE MONITORING DESCRIPTION

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-4: Subpart A provisions that apply to facilities subject to Subpart JJJJ Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.4246, NSPS Subpart JJJJ**

**Item 1-4.1:**

The following provisions of 40 CFR 60 Subpart A apply to this facility: 60.1 through 60.12, 60.14 through 60.17 and 60.19.

**Condition 1-5: Standards for air emissions from MSW landfills Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.752(b)(2), NSPS Subpart**

**WWW**

**Item 1-5.1:**

If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the



owner or operator shall:

i) Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year:

A) The collection and control system as described in the plan shall meet the design requirements of paragraph (ii) below.

B) The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of 40 CFR Part 60.753 through 60.758 proposed by the owner or operator.

C) The collection and control system design plan shall either conform with specifications for active collection systems in 40 CFR Part 60.759 or include a demonstration to the Administrator's satisfaction of the sufficiency of the alternative provisions to 40 CFR Part 60.759.

D) The Administrator shall review the information submitted under paragraphs (i)(A), (B) and (C) above and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems.

ii) Install a collection and control system that captures the gas generated within the landfill as required by paragraphs (ii)(A) or (B) and (iii) below, within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the emission rate is less than 50 megagrams per year, as specified in 40 CFR Part 60.757(c)(1) or (2).

A) An active gas collection system shall:

1) be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;

2) collect gas from each area, cell or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years (if active) or 2 years (if closed or at final grade);

3) collect gas at a sufficient extraction rate; and

4) be designed to minimize off-site migration of subsurface gas.

(B) A passive collection system shall:

(1) Comply with the provisions specified in paragraphs (A)(1),(2), and (4) above.

(2) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under 40 CFR Part 258.40 of this title.



iii) Route all the collected gas to a control system that complies with either of the following:

A) is an open flare designed and operated in accordance with 40 CFR 60.18; or

B) is a control system designed and operated to reduce NMOC by 98% (by weight) or, when an enclosed combustion device is used for control, to either reduce NMOC by 98% weight or reduce the NMOC outlet concentration to less than 20 parts per million by volume, dry basis as hexane at 3% oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in 40 CFR Part 60.754(d).

(1) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.

(2) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 40 CFR Part 60.756;

(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of paragraph (iii)(A) or (B) above.

**Condition 1-6: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.752(b)(2)(iii)('C'), NSPS**

**Subpart WWW**

**Item 1-6.1:**

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY998-20-0 NMOC - LANDFILL USE ONLY

**Item 1-6.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The landfill gas pre-treatment system for the stationary internal combustion engines shall be designed and operated as follows:

a.) Landfill gas that is collected and used for fuel in an engine or used for subsequent sale as a fuel shall be treated in a treatment system that has an absolute filtration rating of 10 microns or less, lowers the water dew point of the landfill gas by at least 20 degrees Fahrenheit with a dewatering process, and compresses the



landfill gas.

b.) Chautauqua County Landfill shall operate the gas treatment system at all times when gas is routed to the engines for use or subsequent sale.

c.) Within 180 days of startup, Chautauqua County shall submit to the Department a monitoring plan for proper operation of the gas treatment system. The plan shall include:

(1) Design specifications for the filtration, de-watering, and compression systems that demonstrate conformance with the treatment system definition contained in 40CFR60.751.

(2) The minimum pressure drop across the filtration system, or other monitoring parameter(s) and operating ranges that indicate proper performance of the filtration system. The collection and control plan must include information, such as manufacturer's recommendations or engineering analyses, to justify the minimum pressure drop or operating ranges for other monitoring parameters.

(3) The minimum landfill gas temperature reduction across a chiller based de-watering system, the minimum landfill gas dew point reduction for a non-chiller-based de-watering system, or other operating parameters and operating ranges that indicate proper performance of the de-watering system. If the owner/operator requests approval to monitor temperature or dew point at a single location, such as the outlet of the chiller or de-watering system, rather than at both the inlet and outlet, the design plan must demonstrate that the proposed monitoring location and site specific maximum temperature or maximum dew point are sufficient to indicate that the dew point has been reduced by at least 20 degrees Fahrenheit, according to the treatment system definition. The collection and control plan must include information, such as manufacturer's recommendations or engineering analyses, to justify the operating ranges for temperature, dew point, or other monitoring parameters.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: LANDFILL GAS

Parameter Monitored: TEMPERATURE

Lower Permit Limit: 20 degrees Fahrenheit

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)



Reports due 30 days after the reporting period.  
Subsequent reports are due every 6 calendar month(s).

**Condition 1-7: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.752(b)(2)(iii)(C), NSPS**  
**Subpart WWW**

**Item 1-7.1:**

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY998-20-0 NMOG - LANDFILL USE ONLY

**Item 1-7.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

All collected landfill gas must be routed to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of 40 CFR 60.752(b)(2)(iii)(A) or (B). For purposes of this rule, atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of 40 CFR 60.752(b)(2)(iii)(A) or (B). The owner/operator of the landfill gas treatment system must ensure compliance with these requirements. The owner/operator of a combustion device who uses or purchases treated landfill gas for fuel in a combustion device shall be exempt from further compliance with this 40 CFR 60 Subpart WWW. Since the treatment option is only valid when treated landfill gas is sold or used as a fuel in a combustion device, the gas must be used as a fuel, and venting of treated landfill gas to the ambient air is not allowed under this option.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-8: Operational standards for collection and control systems**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.753(a), NSPS Subpart**  
**WWW**

**Item 1-8.1:**

Each owner or operator of an MSW landfill with a gas collection and control system used to



comply with the provisions of 40 CFR Part 60.752(b)(2)(ii) shall:

a) Operate the collection system such that gas is collected from each area, cell or group of cells in the MSW landfill in which solid waste has been in place for:

- 1) 5 years or more if active; or
- 2) 2 years or more if closed or at final grade.

**Condition 1-9: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.753(b), NSPS Subpart**

**WWW**

**Item 1-9.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 1-9.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Operate the collection system with negative pressure at each wellhead except under the following conditions:

- 1) A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in 40 CFR Part 60.757(f)(1).
- 2) Use of a geomembrane cover or an equivalent synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan.
- 3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows.

If monitoring demonstrates that the operational requirements are not met, corrective action shall be taken as specified in §60.755(a)(3) through (5) of Subpart WWW.

If corrective actions are taken as specified in §60.755, the monitored exceedance is not a violation of the operational requirements in this section, however the permittee shall report these episodes as deviations.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: LANDFILL GAS

Parameter Monitored: PRESSURE

Upper Permit Limit: 0 pounds per square inch gauge



Monitoring Frequency: MONTHLY  
Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -  
SEE MONITORING DESCRIPTION  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 6 calendar month(s).

**Condition 1-10: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.753(c), NSPS Subpart**

**WWW**

**Item 1-10.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 1-10.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC  
OPERATIONS

Monitoring Description:

Operate each interior wellhead in the collection system with an oxygen level in the landfill gas less than 5%. The owner or operator may establish a higher operating oxygen level at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

If monitoring demonstrates that the operational requirements are not met, corrective action shall be taken as specified in §60.755(a)(3) through (5) of Subpart WWW.

If corrective actions are taken as specified in §60.755, the monitored exceedance is not a violation of the operational requirements in this section, however the permittee shall report these episodes as deviations.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: LANDFILL GAS

Parameter Monitored: OXYGEN CONTENT

Upper Permit Limit: 4.9 percent

Reference Test Method: Method 3a

Monitoring Frequency: MONTHLY

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -  
SEE MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-11: Compliance Certification**  
**Effective for entire length of Permit**



**Applicable Federal Requirement:40CFR 60.753(c), NSPS Subpart**

**WWW**

**Item 1-11.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 1-11.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees centigrade. The owner or operator may establish a higher operating temperature at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

If monitoring demonstrates that the operational requirements are not met, corrective action shall be taken as specified in §60.755(a)(3) through (5) of Subpart WWW. If corrective actions are taken as specified in §60.755, the monitored exceedance is not a violation of the operational requirements in this section, however the permittee shall report these episodes as deviations.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: LANDFILL GAS

Parameter Monitored: TEMPERATURE

Upper Permit Limit: 54.9 degrees Centigrade (or Celsius)

Monitoring Frequency: MONTHLY

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-12: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.753(d), NSPS Subpart**

**WWW**

**Item 1-12.1:**

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 000074-82-8 METHANE



**Item 1-12.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: AMBIENT AIR MONITORING

Monitoring Description:

Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

If monitoring demonstrates that the operational requirements are not met, corrective action shall be taken as specified in §60.755(c) of Subpart WWW. If corrective actions are taken as specified in §60.755, the monitored exceedance is not a violation of the operational requirements in this section, however the permittee shall report these episodes as deviations.

Parameter Monitored: METHANE

Upper Permit Limit: 499 parts per billion by volume

Reference Test Method: Method 21

Monitoring Frequency: QUARTERLY

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-13: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.753(e), NSPS Subpart**

**WWW**

**Item 1-13.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 1-13.2:**

Compliance Certification shall include the following monitoring:



Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Operate the collection system such that all collected gases are vented to a control system designed and operated in compliance with 40 CFR Part 60.752(b)(2)(iii). In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within one hour.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-14: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.753(f), NSPS Subpart WWW**

**Item 1-14.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 1-14.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Operate the control or treatment system at all times when the collected gas is routed to the system

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-15: Compliance Provisions - collection system**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.755(a), NSPS Subpart**

**WWW**

**Item 1-15.1:**

Except as provided in 40 CFR Part 60.752(b)(2)(i)(B), the specified methods in paragraphs (1) through (6) below, shall be used to determine whether the gas collection system is in compliance with 40 CFR Part 60.752(b)(2)(ii).

1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with 40 CFR Part 60.752(b)(2)(ii)(A)(1), the following equation shall be used. The k and Lo kinetic factors should be those published in the most recent Compilation of Air Pollutant Emissions Factors (AP-42) or other site specific values demonstrated to be appropriate for this site and approved by the Administrator. If k has been determined as specified in 40 CFR Part 60.754(a)(4), the value of k determined from the test shall be used. The active life of the landfill is the age of the landfill plus the estimated number of



years until closure.

ii) For waste sites with known year-to-year solid waste acceptance rate:

$$QM = S \sum_{k=1}^n k L_{o_i} M_i (e^{-k t_i}) ,$$

where,

- QM = maximum expected gas generation flow rate, cubic meters per year
- k = methane generation rate constant, year<sup>-1</sup>
- L<sub>o</sub> = methane generation potential, cubic meters per megagram solid waste
- M<sub>i</sub> = mass of solid waste in the i<sup>th</sup> section, megagrams
- t<sub>i</sub> = age of the i<sup>th</sup> section (years).

2) For the purposes of determining sufficient density of gas collectors for compliance with 40 CFR Part 60.752(b)(2)(ii)(A)(2), the owner shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Administrator, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with 40 CFR Part 60.752(b)(2)(ii)(A)(3), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under 40 CFR Part 60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternate timeline for correcting the exceedance may be submitted to the Administrator for approval.

4) Owners or operators are not required to expand the system as required in paragraph (3) above during the first 180 days after gas collection system startup.

5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in 40 CFR Part 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.

6) An owner or operator seeking to demonstrate compliance with 40 CFR Part 60.752(b)(2)(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in 40 CFR Part 60.759 shall provide information satisfactory to the Administrator as specified in 40 CFR Part 60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled.

**Condition 1-16: Compliance Provisions - wells**  
**Effective for entire length of Permit**



**Applicable Federal Requirement:40CFR 60.755(b), NSPS Subpart**

**WWW**

**Item 1-16.1:**

For purposes of compliance with 40 CFR Part 60.753(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in 40 CFR Part 60.752(b)(2)(i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

- 1) 5 years or more if active; or
- 2) 2 years or more if closed or at final grade.

**Condition 1-17: Compliance Provisions - surface methane  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.755(c), NSPS Subpart**

**WWW**

**Item 1-17.1:**

The following procedures shall be used for compliance with the surface methane operational standard as provided in 40 CFR Part 60.753(d).

1) After installation of the collection system, the owner or operator shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in 40 CFR Part 60.755(d)

2) The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

3) Surface emission monitoring shall be performed in accordance with section 8.3.1 of Method 21 of 40 CFR Part 60 Appendix A, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

4) Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in paragraphs (4)(i) through (v) below shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of 40 CFR Part 60.753(d).

i) The location of each monitored exceedance shall be marked and the location recorded.

ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.

iii) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in paragraph (4)(v) below shall be taken, and no further monitoring of that location is required until the action specified in paragraph (4)(v) has been taken.



iv) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in paragraph (4)(ii) or (iii) below shall be re-monitored 1 month from the initial exceedance. If the 1-month remonitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month remonitoring shows an exceedance, the actions specified in paragraph (4)(iii) or (v) shall be taken.

v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.

5) The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

**Condition 1-18: Compliance Provisions - instrumentation specifications  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.755(d), NSPS Subpart**

**WWW**

**Item 1-18.1:**

Each owner or operator seeking to comply with the provisions in 40 CFR Part 60.755(c) of this section shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

1) The portable analyzer shall meet the instrument specifications provided in section 6 of Method 21 of 40 CFR Part 60 Appendix A, except that "methane" shall replace all references to VOC.

2) The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.

3) To meet the sample, collection, preservation, storage and transport requirements in Section 8.0 of Method 21 of 40 CFR Part 60 Appendix A, the instrument evaluation procedures of section 8.1 of Method 21 shall be used.

4) The calibration procedures provided in section 10 of Method 21 of 40 CFR Part 60 Appendix A of this part shall be followed immediately before commencing a surface monitoring survey.

**Condition 1-19: Compliance Provisions - Start-up, shutdown, or malfunction  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.755(e), NSPS Subpart**

**WWW**

**Item 1-19.1:**

The provisions of this subpart apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.



**Condition 1-20: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.756(a), NSPS Subpart**

**WWW**

**Item 1-20.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 1-20.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Each owner or operator seeking to comply with 40 CFR Part 60.752(b)(2)(ii)(A) for an active gas collection system shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:

(1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in 40 CFR Part 60.755(a)(3); and

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in 40 CFR Part 60.755(a)(5); and

(3) Monitor temperature of the landfill gas on a monthly basis as provided in 40CFR Part 60.755(a)(5).

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-21: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.756(c), NSPS Subpart**

**WWW**

**Item 1-21.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 1-21.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Each owner or operator seeking to comply with 40 CFR Part



60.752(b)(2)(iii) using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

- 1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.
- 2) A device that records flow to or bypass of the flare. The owner or operator shall either:
  - i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or
  - ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-22: Monitoring of Operations - Other devices  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.756(d), NSPS Subpart**

**WWW**

**Item 1-22.1:**

Each owner or operator seeking to demonstrate compliance with 40 CFR Part 60.752(b)(2)(iii) using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Administrator as provided in 40 CFR Part 60.752(b)(2)(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator shall review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures.

**Condition 1-23: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.756(f), NSPS Subpart WWW**

**Item 1-23.1:**

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):



CAS No: 000074-82-8 METHANE

**Item 1-23.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: AMBIENT AIR MONITORING

Monitoring Description:

Each owner or operator seeking to demonstrate compliance with 40 CFR Part 60.755(c), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in 40 CFR Part 60.755(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

Parameter Monitored: METHANE

Upper Permit Limit: 499 parts per million (by volume)  
above background measurements

Reference Test Method: Method 21

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST  
METHOD INDICATED

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-24: Reporting requirements - Initial design capacity  
Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.757(a), NSPS Subpart**

**WWW**

**Item 1-24.1:**

Owner or operator shall submit an initial design capacity report to the Administrator.

1) The initial design capacity report shall fulfill the requirements of the notification of the date construction is commenced as required under 40 CFR Part 60.7(a)(1) and shall be submitted no later than 90 days after the date of commenced construction.

2) The initial design capacity report shall contain the following information:

i) A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the permit issued by NYSDEC;

ii) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the permit issued by NYSDEC, a copy of the permit



specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity shall be calculated using good engineering practices. The calculations shall be provided, along with the relevant parameters as part of the report. The State or Administrator may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

**Condition 1-25: Reporting requirements - NMOC emission rate  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.757(b), NSPS Subpart**

WWW

**Item 1-25.1:**

Owner or operator shall submit an NMOC emission rate report to the Administrator initially and annually thereafter, except as provided in (1)(ii) or (3) below. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.

1) The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate, calculated using the formula and procedures provided in 40 CFR Part 60.754(a) or (b), as applicable.

i) The initial NMOC emission rate report may be combined with the initial design capacity report required by 40 CFR Part 60.757(a) and shall be submitted no later than 90 days after the date of commenced construction. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in (1)(ii) and (3) below.

ii) If the estimated NMOC emission rate as reported in the annual report to the Administrator is less than 50 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Administrator. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the Administrator. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

2) The NMOC emission rate report shall include all data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.

3) Owner or operator is exempted from the requirements in paragraphs (1) and (2) above, after installation of a collection and control system in compliance with 40 CFR Part 60.752(b)(2), during such time as the collection and control system is in operation and in compliance with 40 CFR Part 60.753 and Part 60.755

**Condition 1-26: Reporting Requirements - Collection and Control System  
Design Plan  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.757(c), NSPS Subpart**

WWW



**Item 1-26.1:**

Each owner or operator subject to the provisions of 40 CFR Part 60.752(b)(2)(i) shall submit a collection and control system design plan to the Administrator within 1 year of the first report, required under 40 CFR Part 60.757(b), in which the emission rate exceeds 50 megagrams per year, except as follows:

(1) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in 40 CFR Part 60.754(a)(3) and the resulting rate is less than 50 megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 50 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, shall be submitted within 180 days of the first calculated exceedance of 50 megagrams per year.

(2) If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant (k), as provided in Tier 3 in 40 CFR Part 60.754(a)(4), and the resulting NMOC emission rate is less than 50 Mg/yr, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant (k) shall be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of 40 CFR Part 60.754(a)(4) and the resulting site-specific methane generation rate constant (k) shall be submitted to the Administrator within 1 year of the first calculated emission rate exceeding 50 megagrams per year.

**Condition 1-27: Reporting Requirements - Closure Report  
Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.757(d), NSPS Subpart**

WWW

**Item 1-27.1:**

Each owner or operator of a controlled landfill shall submit a closure report to the Administrator within 30 days of waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR Part 258.60 of this title. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR Part 60.7(a)(4).

**Condition 1-28: Reporting Requirements - Control Equipment Removal  
Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.757(e), NSPS Subpart**

WWW

**Item 1-28.1:**

Each owner or operator of a controlled landfill shall submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.

(1) The equipment removal report shall contain all of the following items:

(i) A copy of the closure report submitted in accordance with 40 CFR Part 60.757(d) of this section;



minimum (ii) A copy of the initial performance test report demonstrating that the 15 year control period has expired; and  
that the (iii) Dated copies of three successive NMOC emission rate reports demonstrating landfill is no longer producing 50 megagrams or greater of NMOC per year.

(2) The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in 40 CFR Part 60.752(b)(2)(v) have been met.

**Condition 1-29: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.757(f), NSPS Subpart WWW**

**Item 1-29.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 1-29.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Each owner or operator of a landfill seeking to comply with 40 CFR Part 60.752(b)(2) using an active collection system designed in accordance with 40 CFR Part 60.752(b)(2)(ii) shall submit to the Administrator annual reports of the recorded information in paragraphs (1) through (6) below. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR Part 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under 40 CFR Part 60.758(c).

(1) Value and length of time for exceedance of applicable parameters monitored under 40 CFR Part 60.756(a), (b), (c), and (d).

(2) Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under 40 CFR Part 60.756.

(3) Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.

(4) All periods when the collection system was not operating in excess of 5 days.

(5) The location of each exceedance of



the 500 parts per million methane concentration as provided in 40 CFR Part 60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month.

(6) The date of installation and the location of each well or collection system expansion added pursuant to paragraphs 40 CFR Part 60.755(a)(3), (b), and (c)(4).

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 12 calendar month(s).

**Condition 1-30: Reporting requirements - Collection and control system  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.757(g), NSPS Subpart**

**WWW**

**Item 1-30.1:**

Each owner or operator seeking to comply with 40 CFR Part 60.752(b)(2)(iii) shall include the following information with the initial performance test report required under 40 CFR Part 60.8:

- 1) A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;
- 2) The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;
- 3) The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;
- 4) The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area; and
- 5) The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and
- 6) The provisions for the control of off-site migration.

**Condition 1-31: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.758(a), NSPS Subpart**

**WWW**



**Item 1-31.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 1-31.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Except as provided in 40 CFR Part 60.752(b)(2)(i)(B), each owner or operator of an MSW landfill subject to the provisions of 40 CFR Part 60.752(b) shall keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity report which triggered 40 CFR Part 60.752(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-32: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.758(b), NSPS Subpart**

**WWW**

**Item 1-32.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 1-32.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Except as provided in 40 CFR Part 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in paragraphs (1) through (4) below as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

1) Where an owner or operator seeks to demonstrate compliance with 40 CFR Part 60.752(b)(2)(ii):



i) The maximum expected gas generation flow rate as calculated in 40 CFR Part 60.755(a)(1). The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Administrator.

ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR Part 60.759(a)(1).

2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with 40 CFR Part 60.752(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity greater than 44 megawatts:

i) The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test.

ii) The percent reduction of NMOC determined as specified in 40 CFR Part 60.752(b)(2)(iii)(B) achieved by the control device.

3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with 40 CFR Part 60.752(b)(2)(iii)(B)(1) through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

4) Where an owner or operator seeks to demonstrate compliance with 40 CFR Part 60.752(b)(2)(iii)(A) through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR Part 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).



**Condition 1-33: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40 CFR 60.758(c), NSPS Subpart**

**WWW**

**Item 1-33.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 1-33.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Except as provided in 40 CFR Part 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in 40 CFR Part 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

1) The following constitute exceedances that shall be recorded and reported under 40 CFR Part 60.757(f):

i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28 degrees C below the average combustion temperature during the most recent performance test at which compliance with 40 CFR Part 60.752(b)(2)(iii) was determined.

ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under paragraph 40 CFR Part 60.758(b)(3)(i) of this section.

2) Each owner or operator shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under 40 CFR Part 60.756.

3) Each owner or operator subject to the provisions of this subpart who uses a boiler or



process heater with a design heat input capacity of 44 megawatts or greater to comply with 40 CFR Part 60.752(b)(2)(iii) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State, local, Tribal, or Federal regulatory requirements.)

4) Each owner or operator seeking to comply by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under 40 CFR Part 60.756(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-34: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.758(d), NSPS Subpart**

**WWW**

**Item 1-34.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 1-34.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Except as provided in 40 CFR Part 60.752(b)(2)(i)(B), each owner or operator shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

1) Each owner or operator shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under 40 CFR Part 60.755(b).

2) Each owner or operator shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in 40 CFR Part



60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in 40 CFR Part 60.759(a)(3)(ii).

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 6 calendar month(s).

**Condition 1-35: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.758(e), NSPS Subpart**

**WWW**

**Item 1-35.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 1-35.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Except as provided in 40 CFR Part 60.752(b)(2)(i)(B), each owner or operator shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in 40 CFR Part 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
Subsequent reports are due every 6 calendar month(s).

**Condition 1-36: Specifications for active collection systems**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.759(a), NSPS Subpart**

**WWW**

**Item 1-36.1:**

Each owner or operator seeking to comply with 40 CFR Part 60.752(b)(2)(i) shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator as provided in 40 CFR 60.752(b)(2)(i)(C) and (D):

1) The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer.



The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.

2) The sufficient density of gas collection devices determined in paragraph (1) above shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

3) The placement of gas collection devices determined in paragraph (1) above shall control all gas producing areas, except as provided by paragraphs (3)(i) and (3)(ii) below.

i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under 40 CFR Part 60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Administrator upon request.

ii) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Administrator upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the following equation:

$$Q_i = 2 k L_o M_i (e^{-kt_i}) (\text{CNMOC}) (3.6 \times 10^{-9})$$

where,

$Q_i$  = NMOC emission rate from the  $i$ th section, megagrams per year

$k$  = methane generation rate constant, year<sup>-1</sup>

$L_o$  = methane generation potential, cubic meters per megagram solid waste

$M_i$  = mass of the degradable solid waste in the  $i$ th section, megagram

$t_i$  = age of the solid waste in the  $i$ th section, years

CNMOC = concentration of nonmethane organic compounds, parts per million

by volume

$3.6 \times 10^{-9}$  = conversion factor

iii) The values for  $k$  and CNMOC determined in field testing shall be used, if field testing has been performed in determining the NMOC emission rate or the radii of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for  $k$ ,  $L_o$  and CNMOC provided in 40 CFR Part 60.754(a)(1) or the alternative values from 40 CFR Part 60.754(a)(5) shall be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in paragraph (3)(i) above.

**Condition 1-37: Specifications for active collection systems  
Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.759(b), NSPS Subpart**

WWW



**Item 1-37.1:**

Each owner or operator seeking to comply with 40 CFR Part 60.752(b)(2)(i)(A) shall construct the gas collection devices using the following equipment or procedures:

1) The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.

2) Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

3) Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

**Condition 1-38: Specifications for active collection systems  
Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.759(c), NSPS Subpart**

**WWW**

**Item 1-38.1:**

Each owner or operator seeking to comply with 40 CFR Part 60.752(b)(2)(i)(A) shall convey the landfill gas to a control system in compliance with 40 CFR Part 60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

1) For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (2) below shall be used.

2) For new collection systems, the maximum flow rate shall be in accordance with 40 CFR Part 60.755(a)(1).

**Condition 52: Compliance Certification  
Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement: 40CFR 63.1945, Subpart AAAA**



**Expired by Mod 1**

**Item 52.1:**

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY100-00-0 HAP

**Item 52.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

(f) If your landfill is an existing affected source and is an area source meeting the criteria in §63.1935(a)(3), you must comply with the requirements in §§63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of subpart WWW, the Federal plan, or EPA approved and effective State or tribal plan that applies to your landfill or by January 16, 2004, whichever occurs later.

Chautauqua County Landfill must install a collection and control system in accordance with 6NYCRR Part 208.3(b) which states the approved collection and control system shall be installed within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year or by June 1, 2010. As such, compliance with this subpart, including development and implementation of a written startup, shutdown, and malfunction (SSM) plan shall be completed by June 1, 2010.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2009.

Subsequent reports are due every 6 calendar month(s).

**\*\*\*\* Emission Unit Level \*\*\*\***

**Condition 55: Emission Point Definition By Emission Unit  
Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:6NYCRR 201-6**

**Item 55.1(From Mod 1):**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: 1-LFGAS



Emission Point: BKFLR  
Height (ft.): 34                      Diameter (in.): 10

Emission Point: FLARE  
Height (ft.): 34                      Diameter (in.): 10

**Item 55.2(From Mod 0):**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: 1-LFGTE

Emission Point: ENG01  
Height (ft.): 28                      Diameter (in.): 15

Emission Point: ENG02  
Height (ft.): 28                      Diameter (in.): 15

Building: ENGBLDG

Emission Point: ENG03  
Height (ft.): 28                      Diameter (in.): 15

Emission Point: ENG04  
Height (ft.): 28                      Diameter (in.): 15

Building: ENGBLDG

Emission Point: ENG05  
Height (ft.): 28                      Diameter (in.): 15

Building: ENGBLDG

Emission Point: ENG06  
Height (ft.): 28                      Diameter (in.): 15

Building: ENGBLDG

**Condition 56: Process Definition By Emission Unit**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:6NYCRR 201-6**

**Item 56.1(From Mod 1):**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 1-LFGAS  
Process: GAS                              Source Classification Code: 5-01-004-10

Process Description:  
Process 'GAS' includes the collected landfill gas from  
the gas collection system and the operation of the flare.

Emission Source/Control: 01FLR - Combustion

Emission Source/Control: BCKUP - Combustion

Emission Source/Control: LFGCS - Process



**Item 56.2(From Mod 1):**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 1-LFGTE

Process: 001

Source Classification Code: 2-01-008-07

Process Description:

Process 001 consists of six (6) Caterpillar G3520C gas internal combustion (IC) engine generator sets. The six (6) IC engines have individual maximum heat input rates of 14.67 MMBtu/hr LHV (88.02 MMBtu/hr combined). At the minimum fuel quality utilization value of 420 Btu/cf (LHV), the maximum fuel use rate of each IC engine is approximately 580 cfm.

The process also includes the following exempt sources: two radiator coolant tanks, one lube oil tanks, one used oil tank, a single emergency electricity generator and a diesel fuel storage tank.

Emission Source/Control: 01ENG - Combustion

Design Capacity: 1,600 kilowatts

Emission Source/Control: 02ENG - Combustion

Design Capacity: 1,600 kilowatts

Emission Source/Control: 03ENG - Combustion

Design Capacity: 1,600 kilowatts

Emission Source/Control: 04ENG - Combustion

Design Capacity: 1,600 kilowatts

Emission Source/Control: 05ENG - Combustion

Design Capacity: 1,600 kilowatts

Emission Source/Control: 06ENG - Combustion

Design Capacity: 1,600 kilowatts

**Item 56.3(From Mod 0):**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 1-LFGAS

Process: FUG

Source Classification Code: 5-01-004-02

Process Description:

Process FUG includes the uncollected, fugitive landfill gas emissions from the entire landfill. It is estimated approximately 25% of the generated landfill gas is not collected.

Emission Source/Control: LNDFL - Process

**Condition 57: Compliance Certification**

**Effective between the dates of 10/29/2008 and Permit Expiration Date**



**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 57.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-LFGAS

Process: GAS

Emission Source: 01FLR

Regulated Contaminant(s):

CAS No: 0NY998-20-0 NMOG - LANDFILL USE ONLY

**Item 57.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

1.) 6NYCRR Part 208.3(b)(2)(iii)(a) states an open flare shall be designed and operated in accordance with 40 CFR Section 60.18. The design and operational requirements of 40CFR60.18 are specified below:

a.) §60.18(c)(1) - The flare shall be operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

b.) §60.18(c)(2) - The flare shall be operated with a flame present at all times. The presence of a flame shall be monitored using a thermocouple or similar.

c.) §60.18(c)(3)(ii) - The flare shall be used only with the net heating value of the gas being combusted is 200 British Thermal Units per standard cubic foot (Btu/scf) or greater.

d.) §60.18(c)(4)(i) - The flare shall be designed for and operated with an exit velocity less than 60 ft/sec.

e.) §60.18(c)(4)(iii) - The flare is allowed to be operated with an exit velocity less than the velocity,  $V_{max}$ , and less than 400 ft/sec as determined by the methods specified in 40CFR60.18(f)(4) and (f)(5).

f.) §60.18(d) - Monitor the flare to ensure it is operated and maintained in conformance with the design;

g.) §60.18(e) - The flare shall be operated at all times when emissions may be vented to it;

2.) Chautauqua County must test the flare for compliance



with 40CFR60.18 within 60 days after achieving the maximum production rate but not later than 180 days after initial start-up of the Landfill Gas to Energy Plant (LFGTE). A stack test protocol must be submitted 30 days prior to testing and a final test report submitted within 45 days after the testing is complete. The Department must be notified 10 days prior to the scheduled test date so a Department representative may be present during the test.

3.) A performance test of the flare for compliance with 40CFR60.18 shall be completed, at a minimum, every five years. More frequent performance testing may be required as determined necessary by the Department.

4.) Chautauqua County shall operate the landfill gas flare when gas is not being combusted in the LFGTE or when there is excess gas beyond the capacity of the engines.

5.) Chautauqua County shall maintain operating records and contact Department regional staff within 2 business days of all flare outages. Upon request, a letter shall be sent to the Department to document the cause of the event, a proposed plan for corrective action and a compliance schedule.

6.) Records of each certification shall be kept on-site and be made available to the Department upon request.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2009.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-39: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:6NYCRR 201-6**

**Item 1-39.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-LFGTE

Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

CAS No: 000630-08-0 CARBON MONOXIDE

**Item 1-39.2:**

Compliance Certification shall include the following monitoring:



Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

- 1.) Chautauqua County shall comply with an emission limit for the internal combustion engines of 0.6 grams per brake horsepower-hour (g/bhp-hr) nitrogen oxides (NO<sub>x</sub>) and 3.0 g/bhp-hr carbon monoxide (CO). The Department has made these limits a requirement of the permit because the limits were used during the review of the engine project and proposed expansion.
- 2.) Chautauqua County is also required to comply with less restrictive federal emission rates of 3.0 g/bhp-hr NO<sub>x</sub>, 5.0 g/bhp-hr CO and 1.0 g/bhp-hr VOC. These emission rates are required by the New Source Performance Standards (NSPS) for Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR 60 Subpart JJJJ.
- 3.) Chautauqua County is required to comply with specific performance test requirements for each engine as referenced in other permit conditions of this permit specified under 40 CFR 60 Subpart JJJJ.
- 4.) If the results of a performance test indicate one or more engines exceed the above referenced lower Department emission limits, then an evaluation of the potential impacts and applicability of the following regulations is required:

Non-attainment New Source Review (6NYCRR Part 231 2),

Prevention of Significant Deterioration (40CFR52.21,) and

Reasonably Available Control Technology for Oxides of Nitrogen (6NYCRR Part 227 2).

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 3.0 grams per brake horsepower-hour

Reference Test Method: EPA Method 10 for CO and Method 7 or 7E for NO<sub>x</sub>

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 58: Compliance Certification**

**Effective between the dates of 10/29/2008 and Permit Expiration Date**



**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 58.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-LFGTE

Regulated Contaminant(s):

CAS No: 000630-08-0	CARBON MONOXIDE
CAS No: 0NY210-00-0	OXIDES OF NITROGEN

**Item 58.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The permitted emission rates of the internal combustion engines for nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO) are 0.6 grams per brake horsepower-hour (g/bhp-hr) and 3.0 g/bhp-hr, respectively. The permitted emission rates were used to assess the non-applicability of the facility to New Source Review (6NYCRR Part 231-2), Prevention of Significant Deterioration (40CFR52.21) and Reasonably Available Control Technology for Oxides of Nitrogen (6NYCRR Part 227-2). The Department requires routine performance testing and periodic monitoring of the internal combustion engines to confirm the engines consistently operate within the permitted levels.

**ROUTINE PERFORMANCE TESTING**

- 1.) A performance test to demonstrate compliance with the permitted emission rates of 0.6 g/bhp-hr NO<sub>x</sub> and 3.0 g/bhp-hr CO must be completed within 60 days after achieving the maximum production rate but not later than 180 days after initial start-up.
- 2.) The performance test shall be conducted on one of each similar engine type at the facility. The specific engine to be tested will be selected by the Department. The test must be completed at the maximum normal operating load.
- 3.) The methods used to measure NO<sub>x</sub> and CO shall include EPA Methods 7 or 7E and EPA Method 10 from 40CFR60, Appendix A or another reference method approved by the Department.
- 4.) A performance test protocol shall be submitted to the Department for approval at least 60 days prior to completion of the test. The Department must be notified 10 days prior to the scheduled test date so a Department



representative may be present during the test.

5.) A performance test report of the results shall be submitted to this office within 45 days of completion of the test. The test report must include a data quality review, which consists of a separate independent data quality review completed by a person having demonstrated expertise in reviewing stack test reports and associated test procedures. The ultimate purpose of this review is to determine acceptability of the results for determining compliance with applicable standards and/or requirements. The data quality review report must include the following:

- a.) Whether test methods used followed those contained in the approved protocol and where variations occurred their acceptability under the test methods.
- b.) Where problems occurred during testing, what corrective measures were used and the adequacy of those measures.
- c.) Determination whether data quality is adequate for determining compliance with performance specifications.
- d.) Determine whether the testing demonstrates compliance or noncompliance with emission limits and/or performance requirements.

6.) A performance test shall be completed, at a minimum, every five years on one engine from each similar engine type at the facility. More frequent performance testing may be required as determined necessary by the Department.

#### PERIODIC MONITORING

- 1.) NO<sub>x</sub> and CO stack emissions on each engine shall be analyzed on a routine basis using a portable combustion analyzer.
- 2.) Portable Combustion Analyzer - The suitability of the portable analyzer shall be approved by the Department. The preferred method for analyzing NO<sub>x</sub> is by chemiluminescence. The preferred method for analyzing CO is infra-red (IR). Portable analyzers equipped with electrochemical cells such as a Testo 350 Portable Emission Analyzer are acceptable.

The analyzer shall be calibrated in accordance with the manufactures recommended procedures and schedule. A report for each calibration shall be kept on site and made available for Department review upon request. The analyzer shall be zeroed prior to each use following manufacture procedures.



3.) Sample collection - A permanent sample port shall be installed in each engine stack at a location to obtain a representative sample from the flow profile. To reduce uncertainties in the measurements, standard operating procedures shall be developed and implemented including: instructions on the assembly of the equipment, details of any leak checks, calibration procedures, and time to allow the instrument to stabilize. The sample collection and analysis shall be completed during normal operating conditions.

4.) Monitoring Frequency - The frequency of monitoring shall be determined based on the results of the most current performance test in relation to the permitted emission rate as follows (i.e, a performance test result of 2.4 g/bhp-hr CO requires periodic monitoring every 2 weeks since 2.4 is 80% of 3.0 g/bhp-hr):

Performance test % of permitted emission rate -----	Monitoring Frequency -----
50% or less	quarterly
51 - 75%	monthly
76 - 80%	every 2 weeks
81 - 95%	weekly
96% - 100%	daily

5.) Recordkeeping - Records shall be maintained to include: (1) date and time of the measurement, (2) a log of the NOx and CO measurements in ppm, (3) conversion of the measurements into g/bhp-hr, and (4) description of adjustments made to the engine (if any). The records shall be kept on-site and be made available to the Department upon request.

6.) Reporting - If an exceedance of the permitted emission rates is documented during the performance testing or periodic monitoring, the facility shall report the results to the Department within 30 calendar days along with a proposed program for correction, including completion of a performance test (if determined necessary) and a schedule for compliance.

7.) Reporting - A summary of all periodic monitoring results shall be reported to the Department regional office on a quarterly basis.



Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2009.

Subsequent reports are due every 3 calendar month(s).

**Condition 59: Compliance Certification**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 59.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-LFGTE

Regulated Contaminant(s):

CAS No: 0NY998-20-0 NMOC - LANDFILL USE ONLY

**Item 59.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

1.) In accordance with 6NYCRR Part 208.3(b)(2)(iii)(c), route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of subclauses (b)(1) and (2) of this subparagraph as follows:

(b) a control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at three percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved system using the test methods specified in section 208.5(d) of this Part;

(1) if a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone;

(2) the control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in section 208.7 of this



Part

2.) On-going compliance monitoring of the landfill gas pre-treatment system for the stationary internal combustion engines shall be monitored as follows:

a.) Landfill gas that is collected and used for fuel in an engine or used for subsequent sale as a fuel shall be treated in a treatment system that has an absolute filtration rating of 10 microns or less, lowers the water dew point of the landfill gas by at least 20 degrees Fahrenheit with a de-watering process, and compresses the landfill gas.

b.) Chautauqua County Landfill shall operate the gas treatment system at all times when gas is routed to the engines for use or subsequent sale.

c.) Within 180 days of startup, Chautauqua County shall submit to the Department a monitoring plan for proper operation of the gas treatment system. The plan shall describe the monitoring methods used for the filtering, dewatering and compression processes to assure the treatment system operates as designed.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2009.

Subsequent reports are due every 6 calendar month(s).

**Condition 60: Compliance Certification**

**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:**

**Expired by Mod 1**

**Item 60.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-LFGTE

**Item 60.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

1.) No person shall operate a stationary combustion installation which exhibits greater than 20 percent opacity (six minute average), except for one six-minute period per hour of not more than 27 percent opacity. Compliance with the opacity standard may be determined by: (1) conducting observations in accordance with Reference Method 9; (2) evaluating Continuous Opacity Monitoring



System (COMS) records and reports; and/or (3) considering any other credible evidence.

2.) On-going compliance monitoring of the opacity limit for the stationary internal combustion engines shall be monitored as follows:

a.) A weekly visible emission survey of each emission point shall be completed whenever an engine is in operation.

b.) Visible emission observations shall be performed, as best as possible, at a location to obtain the proper sun angle, background, and line of sight. The observer must be knowledgeable regarding the effects on the visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor);

c.) Document if visible emissions are observed and whether the emissions are within normal conditions or above normal conditions. Normal conditions may be zero percent opacity for many or all emission sources;

d.) If visible emissions above those that are normal and in compliance are observed, an inspection of the source shall be completed, corrective action taken, and the source restored to its normal operation as expeditiously as practicable.

e.) If visible emissions above those that are normal continue to be present after corrections are made, then a certified trained observer shall conduct a minimum six minute opacity observation according to EPA Method 9 within the next operating day of the source;

f.) If an exceedance of the 20 percent opacity limit is documented during the Method 9 opacity evaluations, then the facility shall notify the Department within two business days and provide a written report of the results within 30 calendar days along with a proposed program for correction and a schedule for compliance.

3.) Records shall be maintained and include the following information: date, time, staff name, results of the visible emission survey, results of any Method 9 evaluations (if applicable), results of each inspection, and a description of the corrective action taken (if applicable). The records shall be kept on-site and be made available to the Department upon request.

4.) Within 180 days of startup, Chautauqua County



Landfill shall submit an Operation and Maintenance (O&M) plan for the engines. The O&M plan shall outline proper operation and maintenance procedures to minimize emission from the engines. The plan shall include, but is not limited to: operation requirements, maintenance schedule, reporting, and recordkeeping.

5.) Records shall be kept on-site and be made available to the Department upon request.

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: EPA Method 9

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 61: Compliance Certification**

**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:40CFR 60, NSPS Subpart JJJJ**

**Expired by Mod 1**

**Item 61.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-LFGTE

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

CAS No: 0NY998-00-0 VOC

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 61.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

40 CFR 60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (SI ICE):

1. In accordance with 40 CFR 60.4230(a)(4)(i), owners or operators of stationary SI ICE that are ordered after June 12, 2006 and are manufactured after July 1, 2007 must comply with the emission standards in Table 1 as follows:

NO<sub>x</sub> = 3.0 g/HP-hr

CO = 5.0 g/HP-hr



VOC = 1.0 g/HP-hr

2. 40 CFR 60.4243 specifies the compliance requirements for owners and operators.
3. 40 CRR 60.4244 specifies the testing requirements for owners and operators.
4. 40 CFR 60.4245 specifies the notification, reports and record keeping requirements for owners and operators.
5. If Chautauqua County is an owner or operator of a SI ICE, then the applicable requirements for this regulation shall be determined and compliance maintained.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2009.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-40: Applicability of facilities subject to Subpart JJJJ  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.4230(a)(4)(i), NSPS Subpart JJJJ**

**Item 1-40.1:**

This Condition applies to Emission Unit: 1-LFGTE

**Item 1-40.2:** The provisions of 40 CFR 60 Subpart JJJJ are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) that commence construction after June 12, 2006, and where the stationary SI ICE are manufactured on or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP). For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

**Condition 1-41: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.4233(e), NSPS Subpart JJJJ**

**Item 1-41.1:**

The Compliance Certification activity will be performed for:



Emission Unit: 1-LFGTE

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

**Item 1-41.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards listed below for their stationary SI ICE.

Upper Permit Limit: 5.0 grams per brake horsepower-hour

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-42: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.4233(e), NSPS Subpart JJJJ**

**Item 1-42.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-LFGTE

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

**Item 1-42.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards listed below for their stationary SI ICE.

Upper Permit Limit: 1.0 grams per brake horsepower-hour

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-43: Compliance Certification  
Effective for entire length of Permit**



**Applicable Federal Requirement:40CFR 60.4233(e), NSPS Subpart JJJJ**

**Item 1-43.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-LFGTE

Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 1-43.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards listed below for their stationary SI ICE.

Upper Permit Limit: 3.0 grams per brake horsepower-hour

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-44: Length of time a facility is subject to Subpart JJJJ  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.4234, NSPS Subpart JJJJ**

**Item 1-44.1:**

This Condition applies to Emission Unit: 1-LFGTE

**Item 1-44.2:** Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.

**Condition 1-45: Deadline for installation  
Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.4236(b), NSPS Subpart JJJJ**

**Item 1-45.1:**

This Condition applies to Emission Unit: 1-LFGTE

**Item 1-45.2:** After July 1, 2009, owners and operators may not install stationary SI ICE with a maximum engine power of greater than or equal to 500 HP that do not meet the applicable requirements in §60.4233, except that lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP that do not meet the applicable requirements in §60.4233 may not be



installed after January 1, 2010.

**Condition 1-46: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.4243(b)(2)(ii), NSPS Subpart**

**JJJJ**

**Item 1-46.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-LFGTE

**Item 1-46.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator of a stationary SI internal combustion engine greater than 500 HP must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition an initial performance test must be performed and subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance must also be conducted.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-47: Test methods and procedures**  
**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 60.4244, NSPS Subpart JJJJ**

**Item 1-47.1:**

This Condition applies to Emission Unit: 1-LFGTE

**Item 1-47.2:**

Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of 40 CFR 60.4244, including :

- Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart.

- The performance tests shall not be conducted during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If the stationary SI internal combustion engine is non-operational, the facility does not need to startup the engine solely to conduct a performance



test, but must conduct the performance test immediately upon startup of the engine.

- The facility conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.

**Condition 1-48: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.4245(a), NSPS Subpart JJJJ**

**Item 1-48.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-LFGTE

**Item 1-48.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

(1) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(2) Maintenance conducted on the engine.

(3) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.

(4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).



**Condition 1-49: Compliance Certification**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.4245(c), NSPS Subpart JJJJ**

**Item 1-49.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-LFGTE

**Item 1-49.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the following:

- (1) Name and address of the owner or operator;
- (2) The address of the affected source;
- (3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
- (4) Emission control equipment; and
- (5) Fuel used.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-50: Performance test requirements**  
**Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 60.4245(d), NSPS Subpart JJJJ**

**Item 1-50.1:**

This Condition applies to Emission Unit: 1-LFGTE

**Item 1-50.2:** Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed.

**Condition 1-51: New RICE at an area source of HAP**  
**Effective for entire length of Permit**



**Applicable Federal Requirement:40CFR 63.6590(a)(2), Subpart ZZZZ**

**Item 1-51.1:**

This Condition applies to Emission Unit: 1-LFGTE

**Item 1-51.2:**

A stationary reciprocating internal combustion engine (RICE) located at an area source of HAP emissions is new if construction or reconstruction commenced on or after June 12, 2006.

**Condition 62: Compliance Certification**

**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable Federal Requirement:40CFR 63.6590(a)(2), Subpart ZZZZ**

**Expired by Mod 1**

**Item 62.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-LFGTE

Regulated Contaminant(s):

CAS No: 0NY100-00-0 HAP

**Item 62.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE):

1. In accordance with 40 CFR 63.6595(a)(7), if you start up a new stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of the affected source.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2009.

Subsequent reports are due every 6 calendar month(s).

**Condition 1-52: Stationary RICE subject to regulations under 40 CFR Part 60**

**Effective for entire length of Permit**

**Applicable Federal Requirement:40CFR 63.6590(c), Subpart ZZZZ**

**Item 1-52.1:**

This Condition applies to Emission Unit: 1-LFGTE



**Item 1-52.2:** An affected source that is a new or reconstructed stationary RICE located at an area source must meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

**Condition 1-53: Compliance Dates for new RICE at an area source of HAP  
Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 63.6595(a)(7), Subpart ZZZZ**

**Item 1-53.1:**

This Condition applies to Emission Unit: 1-LFGTE

**Item 1-53.2:**

If the facility starts up a new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, the facility must comply with the applicable emission limitations and operating limitations in subpart ZZZZ upon startup.

**Condition 1-54: Compliance Certification  
Effective for entire length of Permit**

**Applicable Federal Requirement: 40CFR 63.6665, Subpart ZZZZ**

**Item 1-54.1:**

The Compliance Certification activity will be performed for:

Emission Unit: 1-LFGTE

Regulated Contaminant(s):

CAS No: 0NY100-00-0 HAP

**Item 1-54.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

If you own or operate a stationary reciprocating internal combustion engine (RICE) located at an area source of hazardous air pollutant (HAP) emissions, you do not need to comply with any of the requirements of the General Provisions in §§ 63.1 through 63.15.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

Subsequent reports are due every 6 calendar month(s).



**STATE ONLY ENFORCEABLE CONDITIONS**

**\*\*\*\* Facility Level \*\*\*\***

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

**This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability**

**Item A: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5**

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

**STATE ONLY APPLICABLE REQUIREMENTS**

**The following conditions are state applicable requirements and are not subject to compliance certification requirements unless otherwise noted or required under 6 NYCRR Part 201.**

**Condition 63: Contaminant List**  
**Effective between the dates of 10/29/2008 and Permit Expiration Date**

**Applicable State Requirement:ECL 19-0301**

**Item 63.1:**

Emissions of the following contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring conditions).

CAS No: 000074-82-8

Name: METHANE

CAS No: 000630-08-0



Name: CARBON MONOXIDE

CAS No: 0NY100-00-0

Name: HAP

CAS No: 0NY210-00-0

Name: OXIDES OF NITROGEN

CAS No: 0NY998-00-0

Name: VOC

CAS No: 0NY998-20-0

Name: NMOC - LANDFILL USE ONLY

**Condition 1-55: Unavoidable noncompliance and violations  
Effective for entire length of Permit**

**Applicable State Requirement: 6NYCRR 201-1.4**

**Item 1-55.1:**

At the discretion of the commissioner a violation of any applicable emission standard for necessary scheduled equipment maintenance, start-up/shutdown conditions and malfunctions or upsets may be excused if such violations are unavoidable. The following actions and recordkeeping and reporting requirements must be adhered to in such circumstances.

(a) The facility owner and/or operator shall compile and maintain records of all equipment maintenance or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the commissioner's representative when requested to do so in writing or when so required by a condition of a permit issued for the corresponding air contamination source except where conditions elsewhere in this permit which contain more stringent reporting and notification provisions for an applicable requirement, in which case they supercede those stated here. Such reports shall describe why the violation was unavoidable and shall include the time, frequency and duration of the maintenance and/or start-up/shutdown activities and the identification of air contaminants, and the estimated emission rates. If a facility owner and/or operator is subject to continuous stack monitoring and quarterly reporting requirements, he need not submit reports for equipment maintenance or start-up/shutdown for the facility to the commissioner's representative.

(b) In the event that emissions of air contaminants in excess of any emission standard in 6 NYCRR Chapter III Subchapter A occur due to a malfunction, the facility owner and/or operator shall report such malfunction by telephone to the commissioner's representative as soon as possible during normal working hours, but in any event not later than two working days after becoming aware that the malfunction occurred. Within 30 days thereafter, when requested in writing by the commissioner's representative, the facility owner and/or operator shall submit a written report to the commissioner's representative describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates. These reporting requirements are superceded by conditions elsewhere in this permit which contain reporting and notification provisions for applicable requirements more stringent than those above.

(c) The Department may also require the owner and/or operator to include in reports described under (a) and (b) above an estimate of the maximum ground level concentration of



each air contaminant emitted and the effect of such emissions depending on the deviation of the malfunction and the air contaminants emitted.

(d) In the event of maintenance, start-up/shutdown or malfunction conditions which result in emissions exceeding any applicable emission standard, the facility owner and/or operator shall take appropriate action to prevent emissions which will result in contravention of any applicable ambient air quality standard. Reasonably available control technology, as determined by the commissioner, shall be applied during any maintenance, start-up/shutdown or malfunction condition subject to this paragraph.

(e) In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets.

**Condition 1-56: Air pollution prohibited**  
**Effective for entire length of Permit**

**Applicable State Requirement:6NYCRR 211.2**

**Item 1-56.1:**

No person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emission, either alone or in combination with others.

