Permit Review Report

Permit ID: 3-3330-00184/00002 Renewal Number: 1 Modification Number: 2 07/23/2009

Facility Identification Data
Name: AL TURI LANDFILL & LFGTE FACILITY
Address: 73 HARTLEY RD
GOSHEN, NY 10924

Owner/Firm
Name: AL TURI LANDFILL INC
Address: 73 HARTLEY RD
GOSHEN, NY 10924-9640, USA
Owner Classification: Corporation/Partnership

Permit Contacts
Division of Environmental Permits:
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Division of Air Resources:
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FRAMINGHAM, MA 01701
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Permit Description
Introduction
The Title V operating air permit is intended to be a document containing only enforceable terms and conditions as well as any additional information, such as the identification of emission units, emission points, emission sources and processes, that makes the terms meaningful. 40 CFR Part 70.7(a)(5) requires that each Title V permit have an accompanying "...statement that sets forth the legal and factual basis for the draft permit conditions". The purpose for this permit review report is to satisfy the above requirement by providing pertinent details regarding the permit/application data and permit conditions in a more easily understandable format. This report will also include background narrative and explanations of regulatory decisions made by the reviewer. It should be emphasized that this permit review report, while based on information contained in the permit, is a separate document and is not itself an enforceable term and condition of the permit.

Summary Description of Proposed Project
Modification which includes the overhaul of a pre 2006 Caterpillar G3516 800 kW engine, the addition of an overhauled pre 2006 Caterpillar G3516 800 kW engine and the addition of a new Caterpillar G3516 800 kW engine (manufactured in 2009).

All three engines are lean burn spark ignited which are subject to NMOC control requirements under 6NYCRR Part 208. The new engine, manufactured in 2009, is subject to emission standards under 40CFR 60 - JJJJ.

This is a minor permit modification since criteria listed under 6NYCRR 201-6.7(c) have not been exceeded which include:

(i) Do not violate any applicable requirement.

(ii) Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit and are not otherwise a significant change in the permit.

(iii) Do not require or change a case-by-case determination of a Federal emission limitation or other Federal standard, or a specific determination for portable sources causing adverse ambient impacts, or a visibility or increment analysis.

(iv) Do not seek to establish or change a permit term or condition that the facility has assumed to avoid an applicable requirement to which the emission source would otherwise be subject. Such terms and conditions include:

(*a*) a federally enforceable emissions cap assumed to avoid classification as a modification under any provision of title I of the act, including Part 231 of this Title; or

(*b*) an alternative emissions limit approved pursuant to the early reduction program under section 112 of the act.

(v) Are not modifications under any provision of title I of the act, including modifications resulting in significant net emission increases as defined and regulated under Part 231 of this Title or the Federal Prevention of Significant Deterioration Program regulations at 40 CFR 52.21.

Attainment Status

AL TURI LANDFILL & LFGTE FACILITY is located in the town of GOSHEN in the county of ORANGE. The attainment status for this location is provided below. (Areas classified as attainment are those that meet all ambient air quality standards for a designated criteria air pollutant.)

Criteria Pollutant	Attainment Status
Particulate Matter (PM)	ATTAINMENT
Particulate Matter < 10µ in diameter (PM10)	ATTAINMENT
Sulfur Dioxide (SO2)	ATTAINMENT
Ozone*	MODERATE NON-ATTAINMENT
Oxides of Nitrogen (NOx)**	ATTAINMENT
Carbon Monoxide (CO)	ATTAINMENT

* Ozone is regulated in terms of the emissions of volatile organic compounds (VOC) and/or oxides of nitrogen (NOx) which are ozone precursors.

** NOx has a separate ambient air quality standard in addition to being an ozone precursor

Facility Description

The Al Turi Landfill & LFGTE (the "facility") consists of a combined municipal solid waste landfill (the "landfill"), which is owned and operated by Al Turi Landfill, Inc. ("Al Turi") and an adjacent landfill gas to energy plant (the "LFGTE Plant"), which is owned and operated by Ameresco LFG-1, Inc. ("Ameresco"). This Title V Renewal 1 / Mod 2 permit is associated with the LFGTE Plant.

Renewal 1 / Mod 2 consists of adding two engines to the site replacing two previously decommissioned engines. These replacement engines are identified as follows:

1 - spark ignited Caterpillar G3516 800 kW (used/rebuilt/pre-2006).
1 - spark ignited Caterpillar G3516 800 kW (new/2009).

Currently permitted sources operated at the facility under Renewal 1 / Mod 1 include:

1 - Enclosed Flare (62.5 MMbtu/hr).
1 - spark ignited Caterpillar G3516 800 kW (used/rebuilt/pre-2006).

Permit Structure and Description of Operations

The Title V permit for AL TURI LANDFILL & LFGTE FACILITY is structured in terms of the following hierarchy: facility, emission unit, emission point, emission source and process.

A facility is defined as all emission sources located at one or more adjacent or contiguous properties owned or operated by the same person or persons under common control. The facility is subdivided into one or more emission units (EU). Emission units are defined as any part or activity of a stationary facility that emits or has the potential to emit any federal or state regulated air pollutant. An emission unit is represented as a grouping of processes (defined as any activity involving one or more emission sources (ES) that emits or has the potential to emit any federal or state regulated air pollutant). An emission source is defined as any apparatus, contrivance or machine capable of causing emissions of any air contaminant to the outdoor atmosphere, including any appurtenant exhaust system or air cleaning device. [NOTE: Indirect sources of air contamination as defined in 6 NYCRR Part 203 (i.e. parking lots) are excluded from this definition]. The applicant is required to identify the principal piece of equipment (i.e., emission source) that directly results in or controls the emission of federal or state regulated air pollutants from an activity (i.e., process). Emission sources are categorized by the following types:

combustion - devices which burn fuel to generate heat, steam or power
incinerator - devices which burn waste material for disposal
control - emission control devices
process - any device or contrivance which may emit air contaminants that is not included in the above categories.

AL TURI LANDFILL & LFGTE FACILITY is defined by the following emission unit(s):
Emission unit 0U0001 - Electric is generated by the operation of three internal combustion engines which utilize landfill gas as fuel.
Emission unit 0U0001 is associated with the following emission points (EP):
00005, 00012, 00013
It is further defined by the following process(es):
Process: LG1Landfill Gas is used as fuel to operate the internal combustion engines which generate electricity.

Emission unit 0U0003 - Operation of an enclosed landfill gas flare to control excess or bypass landfill gas.

Operation of an open flare as emergency backup control of landfill gas.
Emission unit 0U0003 is associated with the following emission points (EP):
00010
It is further defined by the following process(es):
Process: LG3Excess or bypass gas is controlled by the operation of landfill gas flares.

Title V/Major Source Status
AL TURI LANDFILL & LFGTE FACILITY is subject to Title V requirements. This determination is based on the following information:
Permit Renewal 1 / Modification 1 to repower the facility by operating a total of three recipricating, lean burn landfill gas engines does not affect the historical status as a major facility under New Source Review.

The Al Turi Landfill & LFGTE facility emission of Carbon Monoxide exceed major stationary source thresholds of 100 tons/yr as defined by 6 NYCRR 201. Potential NOx emissions are below the 100 tons/yr major stationary source thresholds as defined by 6 NYCRR 201. Facility emissions for Carbon Monoxide and Nitrogen Oxides are below New Source Review Major Facility thresholds of 250 tons per year (6NYCRR 231-13 Table 5) and 100 tons per year (6NYCRR 231-13 Table 1) respectively. Emission calculation are presented below.

Attainment pollutant emission calculations

A maximum theoretical gas generation of 1,120 x 10^6 cf , as shown below, occurred in 1998. Data at time of Renewal 1 Modification 2 (July 2009) indicate sustained collection of 1300 cfm at 50 % methane concentration. PTE calculations, based on 2009 data, is presented below.

CO PTE is greatest if all gas was is combusted within the enclosed flare (1,300 cfm). CO = (750 lbs/10x6 dscf as methane) x (683 x 10^6 cf / 2 as methane) = 256,230 lbs = 128 tons < 250 tons Major Facility threshold but > 100 tons Major Stationary Source threshold.

CO PTE from exempt sources = (0.28 mmBTU/hr) x (8760 hr/yr) x (1 / 0.137 mmBTU/gal) x (0.0019 lb CO/gal) + (100 kw) x (1.341 hp/kw) x (0.0069 lb/hp-hr) x (500 hrs) = 500 lbs = 0.25 tons

Non- Attainment pollutant emission calculations

NOx PTE (using manufactures information) from the three engines utilizing 1,000cfm. NOx = ((2 grams/hp-hr) x (8760 hr/yr) x (1 lb/454 grams) x (3)(1148 bhp)) x (1 ton/2000 lbs) = 66.5 tons / yr

NOx PTE from remaining 300 cfm available controlled by flare combustor. NOx = ((40 lb/10^6 cf as methane) x (300 cf/min) x (60 min/hr) x (8760 hr/yr) x (0.5 as methane)) x (1 ton/2000 lbs) = 1.6 tons / yr

There are two exempt diesel fired heatings units and one exempt emergency diesel powered generator.

NOx PTE from exempt sources = (0.28 mmBTU/hr) x (8760 hr/yr) x (1 / 0.137 mmBTU/gal) x (0.014 lb NOx/gal) + (100 kw) x (1.341 hp/kw) x (0.031 lb/hp-hr) x (500 hrs) = 2350 lbs = 1.2 tons

Total NOx PTE = 66.5 tons/yr + 1.6 tons/yr + 1.2 tons/yr = 69.3 tons < 100 tons Major Facility threshold and < 100 tons Major Stationary Source threshold.

PM PTE from internal combustion engines (1,000 cfm). PM = (48 lbs/10x6 dscf as methane) x (526 x 10^6 cf / 2 as methane) = 12,624 lbs = 6.3 tons

PM PTE from enclosed flare combustor (300 cfm). PM = (17 lbs/10x6 dscf as methane) x (158 x 10^6 cf / 2 as methane) = 1,343 lbs = 0.7 tons

Total PM PTE = 6.3 tons/yr + 0.7 tons/yr = 7.0 tons < 100 tons Major Facility threshold and < 100 tons Major Stationary Source threshold.

Historical data indicates landfill gas bypass to the enclosed flares control is typically less than 33% of the total gas collected.

Predicted landfill gas generation rates, based on theoretical LANGEM modeling prepared by DEC, are represented below.

1997 - 1,074 x 10*6 cf or 2,043 cfm
1998 - 1,120 x 10*6 cf or 2,130 cfm
1999 - 1,065 x 10*6 cf or 2,026 cfm
2000 - 1,014 x 10*6 cf or 1,929 cfm
2001 - 964 x 10*6 cf or 1,834 cfm
2002 - 917 x 10*6 cf or 1,745 cfm
2003 - 872 x 10*6 cf or 1,659 cfm
2004 - 830 x 10*6 cf or 1,579 cfm
2005 - 789 x 10*6 cf or 1,501 cfm
2006 - 751 x 10*6 cf or 1429 cfm
2007 - 714 x 10*6 cf or 1358 cfm
2008 - 679 x 10*6 cf or 1292 cfm
2009 - 646 x 10*6 cf or 1229 cfm
2010 - 615 x 10*6 cf or 1170 cfm
2011 - 585 x 10*6 cf or 1113 cfm
2012 - 556 x 10*6 cf or 1058 cfm

** Note - This information was provided to USEPA by facsimile transmission July 12, 2005.

Program Applicability

The following chart summarizes the applicability of AL TURI LANDFILL & LFGTE FACILITY with regards to the principal air pollution regulatory programs:

Regulatory Program	Applicability
PSD	NO
NSR (non-attainment)	NO

NESHAP (40 CFR Part 61)	NO
NESHAP (MACT - 40 CFR Part 63)	YES
NSPS	YES
TITLE IV	NO
TITLE V	YES
TITLE VI	NO
RACT	YES
SIP	YES

NOTES:

PSD Prevention of Significant Deterioration (40 CFR 52) - requirements which pertain to major stationary sources located in areas which are in attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

NSR New Source Review (6 NYCRR Part 231) - requirements which pertain to major stationary sources located in areas which are in non-attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

NESHAP National Emission Standards for Hazardous Air Pollutants (40 CFR 61) - contaminant and source specific emission standards established prior to the Clean Air Act Amendments of 1990 (CAAA) which were developed for 9 air contaminants (inorganic arsenic, radon, benzene, vinyl chloride, asbestos, mercury, beryllium, radionuclides, and volatile HAP's)

MACT Maximum Achievable Control Technology (40 CFR 63) - contaminant and source specific emission standards established by the 1990 CAAA. Under Section 112 of the CAAA, the US EPA is required to develop and promulgate emissions standards for new and existing sources. The standards are to be based on the best demonstrated control technology and practices in the regulated industry, otherwise known as MACT. The corresponding regulations apply to specific source types and contaminants.

NSPS New Source Performance Standards (40 CFR 60) - standards of performance for specific stationary source categories developed by the US EPA under Section 111 of the CAAA. The standards apply only to those stationary sources which have been constructed or modified after the regulations have been proposed by publication in the Federal Register and only to the specific contaminant(s) listed in the regulation.

Title IV Acid Rain Control Program (40 CFR 72 thru 78) - regulations which mandate the implementation of the acid rain control program for large stationary combustion facilities.

Title VI Stratospheric Ozone Protection (40 CFR 82, Subparts A thru G) - federal

requirements that apply to sources which use a minimum quantity of CFC's (chlorofluorocarbons), HCFC's(hydrofluorocarbons)or other ozone depleting substances or regulated substitute substances in equipment such as air conditioners, refrigeration equipment or motor vehicle air conditioners or appliances.

RACT Reasonably Available Control Technology (6 NYCRR Parts 212.10, 226, 227-2, 228, 229, 230, 232, 233, 234, 235, 236) - the lowest emission limit that a specific source is capable of meeting by application of control technology that is reasonably available, considering technological and economic feasibility. RACT is a control strategy used to limit emissions of VOC's and NOx for the purpose of attaining the air quality standard for ozone. The term as it is used in the above table refers to those state air pollution control regulations which specifically regulate VOC and NOx emissions.

SIP State Implementation Plan (40 CFR 52, Subpart HH) - as per the CAAA, all states are empowered and required to devise the specific combination of controls that, when implemented, will bring about attainment of ambient air quality standards established by the federal government and the individual state. This specific combination of measures is referred to as the SIP. The term here refers to those state regulations that are approved to be included in the SIP and thus are considered federally enforceable.

Compliance Status
Facility is in compliance with all requirements

SIC Codes

SIC or Standard Industrial Classification code is an industrial code developed by the federal Office of Management and Budget for use, among other things, in the classification of establishments by the type of activity in which they are engaged. Each operating establishment is assigned an industry code on the basis of its primary activity, which is determined by its principal product or group of products produced or distributed, or services rendered. Larger facilities typically have more than one SIC code.

SIC Code	Description
4931	ELEC & OTHER SERVICES COMBINED

SCC Codes

SCC or Source Classification Code is a code developed and used" by the USEPA to categorizeprocesses which result in air emissions for the purpose of assessing emission factor information.Each SCC represents a unique process or function within a source category logically associated with a point of air pollution emissions. Any operation that causes air pollution can be represented by one or more SCC's.

SCC Code	Description
2-01-002-02	INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION ELECTRIC UTILITY INTERNAL COMBUSTION ENGINE - NATURAL GAS Reciprocating
3-90-007-97	IN-PROCESS FUEL USE INDUSTRIAL PROCESSES - IN-PROCESS FUEL USE General

Facility Emissions Summary

In the following table, the CAS No. or Chemical Abstract Series code is an identifier assigned to every chemical compound. [NOTE: Certain CAS No.'s contain a 'NY' designation within them. These are not true CAS No.'s but

rather an identification which has been developed by the department to identify groups of contaminants which ordinary CAS No.'s do not do. As an example, volatile organic compounds or VOC's are identified collectively by the NY CAS No. 0NY998-00-0.] The PTE refers to the Potential to Emit. This is defined as the maximum capacity of a facility or air contaminant source to emit any air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or air contamination source to emit any air contaminant , including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount or material combusted, stored, or processed, shall be treated as part of the design only if the limitation is contained in federally enforceable permit conditions. The PTE Range represents an emission range for a contaminant. If no PTE quantity is displayed, the PTE Range is provided to indicate the approximate magnitude of facility-wide emissions for the specified contaminant in terms of tons per year (tpy). The term 'HAP' refers to any of the hazardous air pollutants listed in section 112(b) of the Clean Air Act Amendments of 1990. Total emissions of all hazardous air pollutants are listed under the special NY CAS No. 0NY100-00-0. In addition, each individual hazardous air pollutant is also listed under its own specific CAS No. and is identified in the list below by the (HAP) designation.

Cas No.	Contaminant Name	PTE	
		lbs/yr	Range
000124-38-9	CARBON DIOXIDE		>= 250 tpy
000630-08-0	CARBON MONOXIDE		>= 100 tpy but < 250 tpy
0NY100-00-0	HAP		>= 2.5 tpy but < 10 tpy
0NY998-20-0	NMOC - LANDFILL USE ONLY		>= 100 tpy but < 250 tpy
0NY210-00-0	OXIDES OF NITROGEN		>= 50 tpy but < 100 tpy
0NY075-00-0	PARTICULATES		>= 25 tpy but < 40 tpy
007446-09-5	SULFUR DIOXIDE		>= 50 tpy but < 100 tpy
0NY998-00-0	VOC		>= 25 tpy but < 40 tpy

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

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 - 6NYCRR 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.

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

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.

Regulatory Analysis

Location Facility/EU/EP/Process/ES	Regulation	Condition	Short Description
FACILITY		50	Powers and Duties of the Department with respect to air pollution control
FACILITY	40CFR 60-JJJJ.4243(b)(2	2 -11	
FACILITY	40CFR 60-JJJJ.4244	2 -12, 2 -13	Test methods and procedures
FACILITY	40CFR 60-JJJJ.4245(a)	2 -14	Notification, reporting and recordkeeping requirements
FACILITY	40CFR 60-JJJJ.4245(c)	2 -15	Initial notification for engines > 500 HP
FACILITY	40CFR 60-JJJJ.4246	2 -16	Applicability of Subpart A provisions
FACILITY	40CFR 63-AAAA.1955(b)	1 -16	Municipal Solid Waste Landfill NESHAP - General requirements
FACILITY	40CFR 63-AAAA.1980(a)	1 -17	
FACILITY	40CFR 68	21	Chemical accident prevention provisions
FACILITY	40CFR 82	46	Protection of Stratospheric Ozone
FACILITY	40CFR 82-F	22	Protection of Stratospheric Ozone - recycling and emissions reduction
FACILITY	6NYCRR 200.6	1	Acceptable ambient air quality.
FACILITY	6NYCRR 200.7	10	
FACILITY	6NYCRR 201-1.1(b)	1 -2	
FACILITY	6NYCRR 201-1.4	2 -19	Unavoidable noncompliance and violations
FACILITY	6NYCRR 201-1.7	11	
FACILITY	6NYCRR 201-1.8	1 -1	Prohibition of reintroduction of collected contaminants to the air
FACILITY	6NYCRR 201-3.2(a)	13	Exempt Activities - Proof of eligibility
FACILITY	6NYCRR 201-3.3(a)	14	Trivial Activities - proof of eligibility
FACILITY	6NYCRR 201-6	24, 47, 48	Title V Permits and the Associated Permit Conditions
FACILITY	6NYCRR 201-6.5	2 -1	Standard Permit Requirements
FACILITY	6NYCRR 201-6.5(a)(4)	15	
FACILITY	6NYCRR 201-6.5(a)(7)	2	
FACILITY	6NYCRR 201-6.5(a)(8)	16	
FACILITY	6NYCRR 201-6.5(c)	3	Permit conditions for Recordkeeping and Reporting of Compliance

FACILITY	6NYCRR 201-6.5(c)(2)	4		Monitoring Permit conditions for Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.5(c)(3)(ii	5		Permit conditions for Recordkeeping and Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.5(d)(5)	17		
FACILITY	6NYCRR 201-6.5(e)	6		
FACILITY	6NYCRR 201-6.5(f)(6)	18		
FACILITY	6NYCRR 202-1.1	19, 2	-2	
FACILITY	6NYCRR 202-2.1	7		Emission Statements - Applicability
FACILITY	6NYCRR 202-2.5	8		Emission Statements - record keeping requirements.
FACILITY	6NYCRR 208.3(b)(2)(iii)	2	-3, 2 -4, 2 -5	
FACILITY	6NYCRR 208.4(e)	1	-6	Vent Collected Gas to Control System
FACILITY	6NYCRR 208.4(f)	1	-7	
FACILITY	6NYCRR 208.5(d)	2	-6	
0-U0001	6NYCRR 208.5(d)	2	-17	
0-U0003	6NYCRR 208.5(d)	2	-18	
FACILITY	6NYCRR 208.7(b)	2	-7	Monitoring of Operations - Enclosed Combustor
FACILITY	6NYCRR 208.8(e)	1	-11	
FACILITY	6NYCRR 208.8(f)	1	-12	
FACILITY	6NYCRR 208.9(b)	2	-8	Recordkeeping Requirements
FACILITY	6NYCRR 208.9(c)	2	-9	Recordkeeping Requirements
FACILITY	6NYCRR 211.2	2	-20	General Prohibitions - air pollution prohibited.
FACILITY	6NYCRR 211.3	20		General Prohibitions - visible emissions limited
FACILITY	6NYCRR 215	9		
FACILITY	6NYCRR 227-1.3(a)	2	-10	Smoke Emission Limitations.

Applicability Discussion:

Mandatory Requirements: The following facility-wide regulations are included in all Title V permits:

ECL 19-301.
This section of the Environmental Conservation Law establishes the powers and duties assigned to the Department with regard to administering the air pollution control program for New York State.

6NYCRR Part 200-.6
Acceptable ambient air quality - prohibits contravention of ambient air quality standards without mitigating measures

6NYCRR Part 200-.7
Anyone owning or operating an air contamination source which is equipped with an emission control device must operate the control consistent with ordinary and necessary practices, standards and procedures, as per manufacturer's specifications and keep it in a satisfactory state of maintenance and repair so that it operates effectively

6NYCRR Part 201-1.4

This regulation specifies the actions and recordkeeping and reporting requirements for any violation of an applicable state enforceable emission standard that results from a necessary scheduled equipment maintenance, start-up, shutdown, malfunction or upset in the event that these are unavoidable.

6NYCRR Part 201-1.7
Requires the recycle and salvage of collected air contaminants where practical

6NYCRR Part 201-1.8
Prohibits the reintroduction of collected air contaminants to the outside air

6NYCRR Part 201-3.2(a)
An owner and/or operator of an exempt emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains exempt emission sources or units, 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.

6NYCRR Part 201-3.3(a)
The owner and/or operator of a trivial emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains trivial emission sources or units subject to 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.

6NYCRR Part 201-6
This regulation applies to those terms and conditions which are subject to Title V permitting. It establishes the applicability criteria for Title V permits, the information to be included in all Title V permit applications as well as the permit content and terms of permit issuance. This rule also specifies the compliance, monitoring, recordkeeping, reporting, fee, and procedural requirements that need to be met to obtain a Title V permit, modify the permit and demonstrate conformity with applicable requirements as listed in the Title V permit. For permitting purposes, this rule specifies the need to identify and describe all emission units, processes and products in the permit application as well as providing the Department the authority to include this and any other information that it deems necessary to determine the compliance status of the facility.

6NYCRR 201-6.5(a)(4)
This mandatory requirement applies to all Title V facilities. It requires the permittee to provide information that the Department may request in writing, within a reasonable time, in order to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. The request may include copies of records required to be kept by the permit.

6NYCRR 201-6.5(a)(7)
This is a mandatory condition that requires the owner or operator of a facility subject to Title V requirements to pay all applicable fees associated with the emissions from their facility.

6NYCRR 201-6.5(a)(8)
This is a mandatory condition for all facilities subject to Title V requirements. It allows the Department to inspect the facility to determine compliance with this permit, including copying records, sampling and monitoring, as necessary.

6NYCRR Part 201-6.5(c)
This requirement specifies, in general terms, what information must be contained in any required compliance monitoring records and reports. This includes the date, time and place of any sampling, measurements and analyses; who performed the analyses; analytical techniques and methods used as well as any required QA/QC procedures; results of the analyses; the operating conditions at the time of sampling or measurement and the identification of any permit deviations. All such reports must also be certified by the designated responsible official of the facility.

6NYCRR Part 201-6.5(c)(2)
This requirement specifies that all compliance monitoring and recordkeeping is to be conducted according to the terms and conditions of the permit and follow all QA requirements found in applicable regulations. It also requires monitoring records and supporting information to be retained for at least 5 years from the time of sampling, measurement, report or application. Support information is defined as including all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

6NYCRR Part 201-6.5(c)(3)(ii)
This regulation specifies any reporting requirements incorporated into the permit must include provisions regarding the notification and reporting of permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken.

6NYCRR 201-6.5(d)(5)
This condition applies to every Title V facility subject to a compliance schedule. It requires that reports, detailing the status of progress on achieving compliance with emission standards, be submitted semiannually.

6NYCRR Part 201-6.5(e)
Sets forth the general requirements for compliance certification content; specifies an annual submittal frequency; and identifies the EPA and appropriate regional office address where the reports are to be sent.

6NYCRR 201-6.5(f)(6)
This condition allows changes to be made at the facility, without modifying the permit, provided the changes do not cause an emission limit contained in this permit to be exceeded. The owner or operator of the facility must notify the Department of the change. It is applicable to all Title V permits which may be subject to an off permit change.

6NYCRR Part 202-1.1
This regulation allows the department the discretion to require an emission test for the purpose of determining compliance. Furthermore, the cost of the test, including the preparation of the report are to be borne by the owner/operator of the source.

6NYCRR Part 202-2.1
Requires that emission statements shall be submitted on or before April 15th each year for emissions of the previous calendar year.

6NYCRR Part 202-2.5
This rule specifies that each facility required to submit an emission statement must retain a copy of the statement and supporting documentation for at least 5 years and must make the information available to department representatives.

6NYCRR Part 211-.2
This regulation prohibits any emissions of air contaminants to the outdoor atmosphere which may be detrimental to human, plant or animal life or to property, or which unreasonably interferes with the comfortable enjoyment of life or property regardless of the existence of any specific air quality standard or emission limit.

6 NYCRR Part 211.3
This condition requires that the opacity (i.e., the degree to which emissions other than water reduce the transmission of light) of the emissions from any air contamination source be less than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent.

6 NYCRR Part 215
Prohibits open fires at industrial and commercial sites.

40 CFR Part 68.
This Part lists the regulated substances and there applicability thresholds and sets the requirements for stationary sources concerning the prevention of accidental releases of these substances.

40 CFR Part 82, Subpart F
Subpart F requires the reduction of emissions of class I and class II refrigerants to the lowest achievable level during the service, maintenance, repair, and disposal of appliances in accordance with section 608 of the Clean Air Act Amendments of 1990. This subpart applies to any person servicing, maintaining, or repairing appliances except for motor vehicle air conditioners. It also applies to persons disposing of appliances, including motor vehicle air conditioners, refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment. Those individuals, operations, or activities affected by this rule, may be required to comply with specified disposal, recycling, or recovery practices, leak repair practices, recordkeeping and/or technician certification requirements.

Facility Specific Requirements
In addition to Title V, AL TURI LANDFILL & LFGTE FACILITY has been determined to be subject to the following regulations:

40CFR 60-JJJJ.4243 (b) (2) (ii)

This regulation requires the owner or operator of a stationary SI internal combustion engine greater than 500 HP to 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.

40CFR 60-JJJJ.4244

This regulation specifies the emission limits, test methods and procedures to be used by owners or operators of spark iginted internal combustion engines.

40CFR 60-JJJJ.4245 (a)
This regulation sets forth the notification, reporting and recordkeeping requirements for 40 CFR 60 Subpart JJJJ, for owners and operators of stationary spark ignited internal combustion engines.

40CFR 60-JJJJ.4245 (c)
This regulation sets forth the notification requirements for engines larger than 500 horsepower.

40CFR 60-JJJJ.4246
This regulation specifies that 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.

40CFR 63-AAAA.1955 (b)
This condition requires the owner or operator of the landfill to prepare and implement a Startup, Shutdown, Malfunction (SSM) plan for the control device used at the landfill to control the landfill gas. The plan must describe the procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; a program of corrective action for malfunctioning process; and air pollution control and monitoring equipment used to comply with this standard.

40CFR 63-AAAA.1980 (a)
This regulation requires the owner or operator of the landfill to submit a report, on a semiannual basis of the following:

- any time the monitoring of wellhead parameters showed exceedances of temperature, pressure or nitrogen and oxygen content
- description and duration of any gas diversion from the control device
- description and duration when the control device was not operating for more than 1 hour
- all periods when the collection system was not operating for 5 days or more
- location of each exceedance of the 500 ppm standard for surface methane
- date of installation and location of any additional wells for the collection system.

40CFR 82
The purpose of this regulation is to implement standards on the protection of stratospheric ozone through the control of chloroflourocarbons (CFCs).

6NYCRR 201-1.1 (b)
This regulation requires owner or operators of facilities with emissions to the atmosphere to obtain a permit. The type of permit (Title V, State Facility or Registration) will depend on the amount of pollutants emitted.

6NYCRR 201-6.5

This section of the Title V permitting requirements details the following information: general conditions; permit conditions for monitoring, recordkeeping and reporting of compliance monitoring; compliance certification; operational flexibility; permit shield; term of permits; and reopening for cause.

6NYCRR 208 .3 (b) (2) (iii) ('b')
This condition requires that the control system achieve a non-methane organic compound (NMOC) destruction efficiency of 98% or reduction of outlet concentration of NMOC less than 20 ppm.

6NYCRR 208 .4 (e)
This condition requires that all collected gases are sent to the control system

6NYCRR 208 .4 (f)
This condition requires that the control or treatment system be operated at all times when the collected gas is sent to the system

6NYCRR 208 .5 (d)
There are two permit conditions associated with this requirement which both apply to the enclosed flares.

One condition requires performance testing to determine compliance with NMOC destruction efficiency. The second condition defines the equation to be used to determine the efficiency of the control system in destroying the non-methane organic compound in the landfill gas.

6NYCRR 208 .7 (b)
This condition sets forth the requirements for the use of an enclosed combustor (i.e., enclosed flare, engine, turbine, etc) to control landfill gas.

6NYCRR 208 .8 (e)
This condition specifiies an equipment removal report is submitted prior to control shutdown.

6NYCRR 208 .8 (f)
This condition requires the LFGTE Plant submit semi-annual reports documenting operating exceedances.

6NYCRR 208 .9 (b)
This condition requires the owner or operator of the landfill to keep up-to-date, readily accessible records for the life of the control equipment of the data gathered 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.

6NYCRR 208 .9 (c)
This condition requires the owner or operator of the 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.

6NYCRR 227-1.3 (a)
This regulation prohibits any person from operating a stationary combustion installation which emits smoke equal to or greater than 20% opacity except for one six-minute period per hour of not more than 27% opacity.

Compliance Certification
Summary of monitoring activities at AL TURI LANDFILL & LFGTE FACILITY:

Location Facility/EU/EP/Process/ES	Cond No.	Type of Monitoring
FACILITY	2-11	record keeping/maintenance procedures
FACILITY	2-12	intermittent emission testing
FACILITY	2-13	intermittent emission testing
FACILITY	2-14	record keeping/maintenance procedures
FACILITY	2-15	record keeping/maintenance procedures
FACILITY	1-16	record keeping/maintenance procedures
FACILITY	1-17	record keeping/maintenance procedures
FACILITY	1-2	record keeping/maintenance procedures
FACILITY	2-1	work practice involving specific operations
FACILITY	5	record keeping/maintenance procedures
FACILITY	6	record keeping/maintenance procedures
FACILITY	2-2	intermittent emission testing
FACILITY	7	record keeping/maintenance procedures
FACILITY	2-3	intermittent emission testing
FACILITY	2-4	monitoring of process or control device parameters as surrogate
FACILITY	2-5	monitoring of process or control device parameters as surrogate
FACILITY	1-6	record keeping/maintenance procedures
FACILITY	1-7	record keeping/maintenance procedures
FACILITY	2-6	intermittent emission testing
FACILITY	2-7	record keeping/maintenance procedures
FACILITY	1-11	record keeping/maintenance procedures
FACILITY	1-12	record keeping/maintenance procedures
FACILITY	2-8	record keeping/maintenance procedures
FACILITY	2-9	record keeping/maintenance procedures
FACILITY	2-10	monitoring of process or control device parameters as surrogate

Basis for Monitoring
Emission sources consist of three internal combustion engine used to generate electricity and one enclosed flares which burn excess or bypass landfill derived gas. An open flare is also located onsite for use as an emergency backup to control bypass landfill gas.

The enclosed combustors must be operated to reduce Non-Methane Organic Compound concentration to 98 weight-percent efficiency or less than 20 parts per million by volume. This limit is based on landfill gas control requirements for Municipal Solid Waste Landfills under 6NYCRR Part 208.

Compliance with NMOC control efficiency applicable to the enclosed flare (emission source 00010) was demonstrated by performance testing conducted in 2001. Performance testing will be defined within the future

Renewal 2 permit.

Compliance with NMOC control efficiency applicable to the onsite internal combustion engine (emission source 00005 - manufactured pre 2006), was demonstrated by performance testing conducted in October 2008. Performance testing will be defined within the future Renewal 2 permit.

Compliance with NMOC control efficiency applicable to the overhauled internal combustion engine (emission source E0012 - manufactured pre 2006) and new internal combustion engine (emission source E0013 - manufactured in 2009) must be demonstrated by performance testing within timeframes defined by permit modification 2.

The new internal combustion engine is subject emission limits (NOx, VOC, CO) and recordkeeping requirements under 40 CFR Part 60 - JJJJ.

However, the requirements of 40 CFR Part 60 - JJJJ do not apply to emission source 00005 and E0012 based on manufactured dates prior to 2006 and applicability of the terms modified or reconstructed as defined under 40 CFR Part 60 Subpart A. Information from the applicant include:

1. The existing Caterpillar engine 3516 source 00005 has been on-site and operating since at least 2001(based on equipment inventory records for the purchase agreement).

2. The used Caterpillar engine 3516 source E00012 vendor's proposal affirms the unit has previously completed a 60,000 hour overhaul. A conservative date of manufacture is 2003.

3. The cost of a scheduled 60,000 hour overhaul maintenance for the Caterpillar engine 3516 is $150,000. The cost of the new Caterpillar engine 3516 is priced more than $600,000. The overhaul cost is less than 50% of a new unit replacement value. The NSPS term reconstruction under 40 CFR 60.15 does not apply to emission source 00005 and E00012.

Facility wide calculation of Oxides of Nitrogen (NOx) emissions are below major stationary source thresholds. Therefore, NOx RACT under 6NYCRR 227-2 does not apply. To verify potential emissions are below major stationary source thresholds, the permit specifies intermittent testing for NOx under 6NYCRR Part 202-1.1 with an associated emission limit of 2 grams per hp-hr for each engine. The permit modification application indicates manufacturing data supporting NOx emission rates below 2 grams per hp-hr. This limit is equivalent to NOx RACT under 6NYCRR Part 227-2 and lower than the NOx emission limit of 3 grams per hp-hr required by 40 CFR Part 60 - JJJJ (emission source E0013).

The permit contains a limit of landfill gas combustion to 900 x 10*6 cf as discussed with USEPA January 19, 2006 and February 13, 2006. This limit provides a significant margin below PSD thresholds while allowing the facility to maximize gas collection. This limit is higher than the maximum current and future landfill gas generation rates as estimated using LandGEM. A permitted emission limit has not been attached to this gas collection limit. Therefore, landfill gas collection is limited under a general Title V citation 6NYCRR 201-6.5 as a function of permitting strategy dictated by USEPA (See Renewal 1 Responsiveness Summary).

In accordance with 208.4(e), the gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within one hour in the event the collection or control system is inoperable.

To comply with 208.4(e), the Al Turi LFGTE site utilizes a supervisory control and data acquisition (SCADA) system as a function of preventing direct venting of untreated landfill gas and for the proper operation of the enclosed combustors. The SCADA provides alarms, trends, historical data storage, and remote monitoring of

the engine controllers including protective shutdowns, exhaust gas temperature control and data collection. This system incorporate pressure set points to initiate bypass commands to the automatic flare control in the event full or partial internal combustion engine shutdown. The command controls a spring loaded valve to open and close flow to the automatic ignition enclosed flare. These events and relevant operating data are recorded and procedures followed as outlined by the Startup Shutdown and Malfunction Plan.

In the event a partial or complete shutdown of electric generating (internal combustion engine) occurs, the Al Turi LFGTE site maintains a contract with an independent call out service to notify appropriate plant operators by telephone. The call out service continues notification procedure until a response is confirmed. This service maintains documentation of each call procedure intitiated (ie. date, time, personnel contacted).