

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 2-6499-00029/00151 Renewal Number: 1



08/17/2006

Facility Identification Data

Name: STATEN ISLAND LANDFILL
Address: RICHMOND AVE
STATEN ISLAND, NY 10314

Owner/Firm

Name: NYC DEPT OF SANITATION
Address: 125 WORTH ST
NEW YORK, NY 10013-4006, USA
Owner Classification: Municipal

Permit Contacts

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Air Permitting Contact:
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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.

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Summary Description of Proposed Project

This application is for renewal the of Air Title V permit for the Staten Island landfill.

Attainment Status

STATEN ISLAND LANDFILL is located in the town of STATEN ISLAND in the county of RICHMOND.

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* | SEVERE 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

This facility is a municipal solid waste landfill operated by the New York City Department of Sanitation (NYCDOS). The landfill occupies approximately 2,200 acres along the Fresh Kills estuary on Staten island. Closed in December 2001, it continues to generate methane containing landfill gas (LFG) from the anaerobic degradation of solid waste. Six (6) LFG flares are installed at the landfill; each flare has a design capacity of 5,000 scfm. In addition to the flares, there is an existing LFG processing facility consisting of the Selexol LFG recovery plant. The flares are operated in conjunction with the LFG processing facility to control LFG emissions.

In addition to the closed landfill, the facility also consists of two (2) landfill leachate treatment plants, three (3) landfill vehicle maintenance and repair garages, a rock crushing and screening operation, a yard waste composting facility, and two (2) refueling stations for landfill vehicles.

There are two (2) landfill leachate treatment plants at the facility. The plants have a combined capacity of 1,050,000 gallons per day. Landfill leachate contains ammonia and low levels of volatile organic



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compounds. The leachate is treated using sequencing batch reactors, clarifiers, ph adjustment, and sand filters. It is then discharged to a surface water at the landfill under a State Pollutant Discharge and Elimination System (SPDES) permit.

The three (3) garages are operated by NYCDOS and are equipped with boilers with ratings ranging from 2.8 to 10.5 MMBTU/hr. The boilers are fired by Number 2 fuel oil or natural gas. The garages also include machine shops, a forge shop, carpenter shops, and welding areas. Above ground and underground storage tanks that range in size from 275 to 20,000 gallons are located at the landfill and contain gasoline, diesel fuel, Number 2 fuel oil, hydraulic oil, motor oil, antifreeze, and waste oil.

Permit Structure and Description of Operations

The Title V permit for STATEN ISLAND LANDFILL 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.

STATEN ISLAND LANDFILL is defined by the following emission unit(s):
Emission unit U00001 - The Veterans Avenue Leachate Treatment Plant with a design capacity of 150,000 gallons per day.

Emission unit U00001 is associated with the following emission points (EP):
P1001, P1002, P1003, P1004, P1005, P1006, P1007, P1008, P1009, P1010, P1011, P1012, P1013, P1014, P1015, P1016, P1017, P1018, P1019, P1020, P1021, P1022

It is further defined by the following process(es):
Process: A11 is located at Building VALTP1/2 - This process consists of treatment of landfill leachate by the following major unit processes: 1) influent flow distribution/holding; 2) biological treatment using SBR; 3) metals removal; 4) sedimentation; 5) filtration; 6) pH neutralization.

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Emission unit U00002 - The Fresh Kills Leachate Treatment PLant (FKLTP) with a design capacity of 900,000 gallons per day.

Emission unit U00002 is associated with the following emission points (EP):

P2001, P2002, P2003, P2004, P2005, P2006, P2007, P2008, P2009, P2010, P2011, P2012, P2013, P2014, P2015, P2016, P2017, P2018, P2019, P2020, P2021, P2022, P2023, P2024, P2025

It is further defined by the following process(es):

Process: A21 is located at Entire Building, Building FKLTP1/2 - This process consists of treatment of landfill leachate by the following major unit processes: (1) influent flow distribution; (2) biological treatment using SBR; (3) metals removal; (4) sedimentation; (5) filtration; (6) pH neutralization.

There are three parallel modular treatment trains in the FKLTP, each with a design capacity of 300,000 gallons per day, for a total design capacity of 900,000 gallons per day.

Emission unit U00003 - Six landfill gas flares with a design capacity of 5,000 scfm per flare (30,000 scfm total) and fugitive landfill gas emissions from the landfill.

Emission unit U00003 is associated with the following emission points (EP):

P3001, P3002, P3003, P3004, P3005, P3006

It is further defined by the following process(es):

Process: A31 This process consists of six (6) flares installed to combust landfill gas (LFG). Three flare stations have been constructed. Each flare station is equipped with two LFG flares. The flare stations are located at sections 2/8, 3/4 and 6/7. Each flare station also includes compressor/blower pumps and condensate knockout tanks. Each flare has a maximum design capacity for combusting LFG flows up to 5,000 standard cubic feet per minute (scfm).

Process: A32 Emissions from this process consist of the fugitive landfill gas emissions from the landfill sections that are not captured by the landfill gas collectin system.

Emission unit U00004 - This emission unit includes the existing landfill gas processing Plant #1 (Selexol process).

Emission unit U00004 is associated with the following emission points (EP):

P4001, P4002, P4003

It is further defined by the following process(es):

Process: A41 is located at First, Building GSF1 - This process consists of the Selexol landfill gas (LFG) recovery plant (Plant 1). LFG is processed to remove moisture, hydrogen sulfide and organic sulfur compounds, carbon dioxide and non-methane organic compounds. Plant 1 includes two (2) lean burn internal combustion compressor engines that are fired by processed LFG and a thermal oxidizer used to combust waste gases from the LFG recovery process.

Title V/Major Source Status

STATEN ISLAND LANDFILL is subject to Title V requirements. This determination is based on the following information:

This facility is subject to Title V permitting requirements because the emissions of oxides of nitrogen and carbon monoxide exceed major source levels. In addition, the design capacity of the landfill is greater

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than 2.5 million megagrams. This makes the landfill subject to Title V permitting under 6 NYCRR Part 208.

Program Applicability

The following chart summarizes the applicability of STATEN ISLAND LANDFILL with regards to the principal air pollution regulatory programs:

| Regulatory Program | Applicability |
|--------------------------------|----------------------|
| PSD | YES |
| NSR (non-attainment) | YES |
| NESHAP (40 CFR Part 61) | NO |
| NESHAP (MACT - 40 CFR Part 63) | NO |
| NSPS | NO |
| 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

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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 NO_x 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 NO_x 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



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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 |
|-----------------|----------------------|
| 4953 | REFUSE SYSTEMS |
| 7699 | REPAIR SERVICES, NEC |

SCC Codes

SCC or Source Classification Code is a code developed and used by the USEPA to categorize processes 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 |
|-----------------|---|
| 5-01-004-02 | SOLID WASTE DISPOSAL - GOVERNMENT SOLID WASTE DISPOSAL: GOVERNMENT - LANDFILL DUMP FUGITIVE EMISSIONS |
| 5-01-004-10 | SOLID WASTE DISPOSAL - GOVERNMENT SOLID WASTE DISPOSAL: GOVERNMENT - LANDFILL DUMP WASTE GAS DESTRUCTION: WASTE GAS FLARES |
| 5-01-004-21 | SOLID WASTE DISPOSAL - GOVERNMENT SOLID WASTE DISPOSAL: GOVERNMENT - LANDFILL DUMP WASTE GAS RECOVERY: INTERNAL COMBUSTION DEVICE |
| 5-01-007-01 | SOLID WASTE DISPOSAL - GOVERNMENT SOLID WASTE DISPOSAL: GOVERNMENT - SEWAGE TREATMENT Entire Plant |

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. Any PTE quantity that is displayed represents a facility-wide emission cap or limitation for that 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.

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| Cas No. | Contaminant Name | PTE | |
|-------------|--------------------------|----------|--------------------------|
| | | lbs/yr | Range |
| 000630-08-0 | CARBON MONOXIDE | | >= 250 tpy |
| 0NY100-00-0 | HAP | | >= 40 tpy but < 50 tpy |
| 000074-82-8 | METHANE | 40234000 | |
| 0NY998-20-0 | NMOC - LANDFILL USE ONLY | | >= 10 tpy but < 25 tpy |
| 0NY210-00-0 | OXIDES OF NITROGEN | | >= 250 tpy |
| 0NY075-00-5 | PM-10 | | >= 100 tpy but < 250 tpy |
| 007446-09-5 | SULFUR DIOXIDE | | >= 50 tpy but < 100 tpy |
| 0NY998-00-0 | VOC | | >= 100 tpy but < 250 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

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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.

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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.

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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

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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 | Regulation | Short Description | Condition |
|----------|------------|-------------------|-----------|
|----------|------------|-------------------|-----------|

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Applicability Discussion:

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

ECL 19-301.

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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

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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

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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

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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 their 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, STATEN ISLAND LANDFILL has been determined to be subject to the following regulations:

40CFR 52-A.21

This citation applies to facilities that are subject to Prevention of Significant Deterioration provisions; ie: facilities that are located in an attainment area and that emit pollutants which are listed in 40 CFR 52.21(b)(23)(i). For this permit, the emission limits from the original PSD permit are still in effect. The emission limits are:

NOx - 381.4 tons per year
CO - 773 tons per year
PM-10 - 265.8 tons per year
NMOC - 45.5 tons per year

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SO₂ - 119.4 tons per year

From the landfill gas processing plant (i.e., the Selexol plant) the emission limits are:

PM-10 - 11.84 tons per year

SO₂ - 1.36 tons per year

CO - 79 tons per year

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%. The outlet concentration of NMOC from the control system must be less than 20 ppm.

6NYCRR 208.3 (b) (2) (v)

This condition sets forth the requirements to be met for removal of the collection and control system. For the system to be removed, the non-methane organic compound emission rate must be less than 50 megagrams per year (55 tons/year) and the system must have been in operation at least 15 years.

6NYCRR 208.4 (a)

This condition requires the owner or operator of this landfill gas collection system to 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

6NYCRR 208.4 (b)

This condition requires that the collection system be operated at negative pressure.

6NYCRR 208.4 (c)

This condition requires that the temperature of the landfill not exceed 55^o C and that the nitrogen content not exceed 20% or the oxygen content not exceed 5%. This is to avoid landfill gas fires or infiltration of ambient air into the system.

6NYCRR 208.4 (d)

This condition requires that the concentration of methane on the surface of the landfill be less than 500 parts per million.

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 208.4 (g)

This condition requires that the landfill owner or operator take corrective action if the monitoring of the landfill shows any problems with the collection and/or control system.

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6NYCRR 208.5 (b)

This condition requires the landfill owner or operator to calculate the emission rate of non-methane organic carbon in order to determine when the collection and control system can be removed.

6NYCRR 208.7 (a)

This condition sets forth the monitoring requirements for the collection system. The temperature, pressure and either oxygen or nitrogen content of the gas must be checked monthly.

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 (f)

This condition requires the 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) to submit to the Department annual reports. 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.

6NYCRR 208.8 (g)

This condition specifies the information required to be included in the performance test report.

6NYCRR 208.9 (a)

This condition requires the owner or operator of an MSW landfill subject to the provisions of 6 NYCRR Part 208.3(b) to 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.

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 208.9 (d)

This condition requires the owner or operator of the landfill to keep, for the life of the collection system, an up-to-date, readily accessible plot map showing each existing and planned collector (eg. well) in the system and providing a unique identification location label for each collector.

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6NYCRR 208.9 (e)

This condition requires the owner or operator of the landfill to keep for at least 7 years of 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.

6NYCRR 212

Under this regulation the NYCDOS may not pump more than 47,128,320 cubic feet of landfill gas from the landfill section each day. This is based on the calculated maximum amount of landfill gas expected to be generated by the landfill using the LANDGEM model developed by the US E.P.A.

Also under this regulation, the NYCDOS may not send more than 19,284,000 cubic feet of landfill gas to the flares when the landfill gas treatment plant is in operation.

6NYCRR 212 .10

This condition requires that the temperature in the combustion zone of the flares be measured continuously. Emissions testing will be conducted to determine the operating envelope for flow of landfill gas to the flares and the temperature in the combustion zone to meet the destruction requirements of the NMOC in the landfill gas.

6NYCRR 212 .6 (a)

This condition requires that the opacity of emissions from the flares not exceed 20%. The opacity must be checked on a daily basis.

6NYCRR 231-2

The provisions of Subpart 231-2 apply to new or modified major facilities. The contaminants of concern state-wide are nitrogen oxides and volatile organic compounds since New York State is located in the ozone transport region and because there are ozone non-attainment areas within the state. For this facility the limits, total from the flares and landfill gas processing plant, are:

NOx - 335.7 tons per year

VOC - 68.7 tons per year

6NYCRR 231-2.4

The NYCDOS submitted CO ERCs of 773 tpy and NOx ERCs of 382 tpy. This was done under the previous Title V permit for this facility.

Compliance Certification

Summary of monitoring activities at STATEN ISLAND LANDFILL:

| Location | Type of Monitoring | Cond No. |
|----------------------------------|-------------------------------|-----------------|
| Facility/EU/EP/Process/ES | | |
| FACILITY | intermittent emission testing | 48 |
| FACILITY | intermittent emission testing | 49 |



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| FACILITY | intermittent emission testing | 51 |
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| U-00004/-/A41 | intermittent emission testing | 66 |
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| FACILITY | work practice involving specific operations | 28 |
| FACILITY | work practice involving specific operations | 29 |
| FACILITY | work practice involving specific operations | 30 |
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| FACILITY | monitoring of process or control device parameters as surrogate | 45 |
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| U-00003/-/A31 | record keeping/maintenance procedures | 62 |
| U-00003/-/A31 | monitoring of process or control device parameters as surrogate | 60 |
| U-00003 | intermittent emission testing | 57 |
| U-00003 | intermittent emission testing | 58 |
| U-00004/-/A41 | intermittent emission testing | 63 |
| U-00004/-/A41 | intermittent emission testing | 64 |

Basis for Monitoring

The conditions under 231-2.4 specify the emission reduction credits (ERCs) the NYCDOS submitted to offset the emissions from the flares and other emission sources as part of their collection and control systems. NYCDOS used 773 tons of carbon monoxide ERCs and 382 tons of NOx ERCs.