**New York State Department of Environmental Conservation**

# Permit Review Report

**Permit ID: 9-1402-00154/00007**
**Renewal Number: 2**
**09/12/2016**

**Facility Identification Data**
Name: BIRD ISLAND STP
Address: 90 W FERRY ST
BUFFALO, NY 14213-7999

**Owner/Firm**
Name: BUFFALO SEWER AUTHORITY
Address: 1038 CITY HALL
BUFFALO, NY 14202-3310, USA
Owner Classification: Corporation/Partnership

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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**
This application is for the renewal of the Air Title V permit for the Bird Island Sewage Treatment Plant (STP), owned and operated by the Buffalo Sewer Authority (BSA). This involved adding new requirements to the permit for sewage sludge incinerators - 40CFR60 Subpart MMMM, and 6NYCRR212 - Process

Emissions. Incinerator 2 was rehabilitated and associated control equipment was replaced during this period. A second incinerator, ES 0000F (INC 3), is currently under rehabilitation construction and its associated control equipment will also be replaced. Completion of this project is expected in summer 2017. A third incinerator (INC 1) is closed until compliance with all applicable 40CFR60 Subpart MMMM requirements is demonstrated. The NOx limit specified under 6NYCRR227-2 Reasonably Available Control Technology for Oxides of Nitrogen (NOx RACT) was also updated for the boilers operating on gas (natural and digester). This renewal also includes changing the emission points associated with the auxiliary boilers to show that they are (or will be) ducted directly to the atmosphere, instead of to the Main Stack.

**Attainment Status**
BIRD ISLAND STP is located in the town of BUFFALO in the county of ERIE.
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* | MARGINAL 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 Buffalo Sewer Authority (BSA) operates a Class A Special Wastewater Treatment Plant (WWTP) that discharges into the international boundary water of the Niagara River. The facility services a population of 600,000 in the city of Buffalo and adjoining suburbs through a combined collection system of over 844 miles of trunk and lateral sewer lines.

The BSA treats approximately 60 billion gallons of wastewater annually. The average design flow is 180 million gallons per day (MGD) with a peak collection system flow of 563 MGD and a peak secondary flow of 360MGD.

Wastewater treatment is accomplished via the following processes: influent screening with coarse bar screens, raw wastewater pumping, screening with fine bar screens, grit removal, primary sedimentation, primary settled wastewater pumping, conventional activated sludge treatment, final clarification and disinfection.

Waste activated sludge and primary sludge is pumped to the solids handling facilities. Sludge processing at BSA includes: dissolved air flotation thickeners, sludge digestion, sludge mixing tanks, centrifuge and belt filter presses for sludge dewatering, and sewage sludge incineration. BSA also incinerates sewage sludge from other Municipal WWTPs in the area. The plant is also capable of landfilling the dewatered sludge. Ash is disposed by landfilling.

**Permit Structure and Description of Operations**

The Title V permit for BIRD ISLAND STP
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.

BIRD ISLAND STP is defined by the following emission unit(s):

Emission unit U00003 - This emission unit consists of six anaerobic digesters that produce biogas from wastewater sludge, a biogas storage sphere and two waste gas burners (flares) used to control excess biogas. The digesters are identified as Process SDIII. The sludge digester system stores biogas in a 43.5 ft diameter sphere (vol @ 43,099 ft3), with a working pressure of 55 psi. This biogas fuels three multiple hearth incinerators used for the disposal of dewatered digestate and three auxiliary boilers that provide heat for the digesters and BSA buildings. BSA operates two flares, located on the gas compressor building, identified as Emission Source Control (ESC) FLAR3 and ESC FLAR4 which combust excess biogas to control emissions of volatile organic compounds.The contaminants generated by the combustion of biogas in the flares are emitted to the atmosphere though EP 00SD3 and EP 00SD4, respectively.

Emission unit U00003 is associated with the following emission points (EP):
00SD3, 00SD4
Process: SDI is located at FIRST FLOOR, Building SDR - The BSA Waste Water Treatment Plant runs six anaerobic sludge digesters for primary and waste activated sludge digestion. Two of the digesters have a maximum volume of 1.83 million gallons each. The remaining four digesters have a maximum volume of 2.75 million gallons each. BSA also operates two 1.83 million gallon digester tanks for sludge storage. The digestate is dewatered using centrifuges, then incinerated. Operating equipment includes mixing system, heat exchangers, circulating pumps, gas flow meters, sludge flow meters, compressors for gas recirculation,

two large gas compressors for plant fuel and a biogas storage sphere. The biogas produced through anaerobic digestion of the sludge is used to fuel the incinerators for digestate disposal and the boilers to provide building heat, hot water and heated circulating water for the digesters. Two waste gas burners (flares) burn excess methane (biogas).

Emission unit U00002 - Emission Unit (EU) U00002 is the Main Stack and Main Equipment Building (Bldg MEB) at the Buffalo Sewer Authority. The Main Stack exhausts contaminants to the ambient air from four emission sources (ES) located in Bldg MEB. These emission sources include three multiple hearth sewage sludge incinerators, identified as ES 0000D (INC 1), ES 0000E (INC 2) and ES 0000F (INC 3); and the ash conveyance system, identified as ES ASHHO. The emission points (EPs) associated with these emission sources are EP INC1, EP INC2, EP INC3; and EP ASHHA, respectively. None of these are actual emission points, but are the ducts that lead to the Main Stack from each emission source. EU U-00002 also contains three auxiliary steam generating boilers, identified as ES 00001 (Boiler 1), ES 00005 (Boiler 2) and ES 00009 (Boiler 3). These emission sources exhaust directly to the atmosphere through EP 000CA, EP 000CB and EP 000CC.

Emission unit U00002 is associated with the following emission points (EP):
000CA, 000CB, 000CC, 0INC1, 0INC2, 0INC3, ASHHA
Process: ASH is located at Building MEB - This process is the ash handling system for the incinerators, which includes the ash conveyance system and the ash load-out system. The bottom outlet from each incinerator is equipped with a clinker roller crusher. Crushed incinerator clinkers and ash are dropped into ash hoppers located beneath the base of each incinerator. The bottom of each hopper is connected to an 8 inch i.d. ash vacuum line, which pneumatically conveys the ash up 108 feet to the top of either Silo-1 or Silo-2. The ash is then separated from the air through cyclonic action after passing through a primary receiver and secondary receiver, then dumped into the silo for interim storage. Air that is displaced while filling the silo passes through a baghouse prior to discharging to the ambient air. To control particulate emissions prior to exhausting to the Main Stack, the air stream that exits the secondary receiver passes through a venturi air washer and wash tank, identified as VAW-1 and W-1, at ground level. The ash load-out system removes ash by gravity from the silo into the rear of a 40 yard dump truck. To prevent dust formation as ash is transferred from the silo to the dump truck, water is added and mixed into the ash prior to load-out. There is one independent ash load-out system for each silo. The ash conveyance system and the ash load-out systems cannot activate if plant water pressure is less than 40 psi. The ash handling system is controlled by BSA's SCADA system.

Process: BOI is located at FIRST FLOOR, Building MEB - This process is three boilers (ES 00001 (#1), ES 00005 (#2) and ES00009 (#3), equipped with low NOx burners, that supply building heat, hot water, and heated circulating water for the digesters. Each boiler has a rated heat input of 51.4 million btu/hr and is capable of firing natural gas or digester gas. This process is associated with emission points CA, CB, and CC. Auxiliary equipment for the boilers includes air handling equipment, high pressure air compressors, storage tanks, protected water equipment for distribution to the plant, water softening and water conditioning equipment.

Process: INC is located at FIRST FLOOR, Building MEB - This process is the incineration of sewage sludge using multiple hearth incinerators, identified as Emission Source (ES) 0000D (INC 1), ES 0000E (INC 2) and ES 0000F (INC 3)). Each furnace is a separate and complete unit with afterburner, flue gas scrubbers, ash handling and associated equipment. The maximum capacity of each incinerator is determined by the feed rate of centrifuged sewage sludge during a performance test. This process is Stack. To control emissions, ES INC 1 utilizes a separate afterburner and Swemco venturi scrubber, consisting of a precooler, single venturi, impingement tray scrubber and cheveron demister. ES INC 2 contains a double

hearth zero afterburner (ESC ZERO2) which exhausts to a multilance precooler (ESC PCLR2) and a micromist scrubber (ESC MMSC2) prior to discharge to the ambient air through the MAIN Stack. The micromist scrubber includes an impingement tray, venturi lances and a mist eliminator to control emissions. INC 3 is currently being rehabilitated similarly to INC 2 and is expected to restart during 2017.

**Title V/Major Source Status**
BIRD ISLAND STP is subject to Title V requirements. This determination is based on the following information:
The Buffalo Sewer Authority is major for oxides of nitrogen (NOx) and carbon monoxide (CO) emissions. The majority of these emissions are produced by sewage sludge incinerators, auxiliary boilers and flares. The anaerobic digestion of sewage sludge, the incineration of sewage sludge and the operation of the auxiliary boilers produces volatile organic compounds (VOCs) in excess of 50 tons per year. VOCs from the anaerobic digesters and sewage sludge incineration are controlled by flares and afterburners, respectively.

**Program Applicability**
The following chart summarizes the applicability of BIRD ISLAND STP with regards to the principal air pollution
regulatory programs:

| Regulatory Program | Applicability |
|---|---|
| PSD | NO |
| NSR (non-attainment) | NO |
| NESHAP (40 CFR Part 61) | YES |
| NESHAP (MACT - 40 CFR Part 63) | NO |
| NSPS | YES |
| TITLE IV | NO |
| TITLE V | YES |
| TITLE VI | NO |
| RACT | YES |
| SIP | YES |

NOTES:
PSD Prevention of Significant Deterioration (40 CFR 52, 6 NYCRR 231-7, 231-8) - 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 231-5, 231-6) - 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, 6 NYCRR 200.10) - 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, 6 NYCRR 200.10) - 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, 6 NYCRR 200.10) - 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, 6 NYCRR 201-6) - regulations which mandate the implementation of the acid rain control program for large stationary combustion facilities.

Title VI Stratospheric Ozone Protection (40 CFR 82, Subpart A thru G, 6 NYCRR 200.10) - 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, 6 NYCRR 200.10) - 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 |
|---|---|

| | |
|---|---|
| 4952 | SEWERAGE SYSTEMS |

**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 |
|---|---|
| 1-03-006-02 | EXTERNAL COMBUSTION BOILERS - COMMERCIAL/INDUSTRIAL<br>COMMERCIAL/INSTITUTIONAL BOILER - NATURAL GAS<br>10-100 MMBtu/Hr |
| 3-90-006-99 | IN-PROCESS FUEL USE<br>INDUSTRIAL PROCESSES - IN-PROCESS FUEL USE<br>General |
| 5-01-007-89 | SOLID WASTE DISPOSAL - GOVERNMENT<br>SOLID WASTE DISPOSAL: GOVERNMENT - SEWAGE TREATMENT<br>SLUDGE DIGESTER GAS FLARE |
| 5-03-005-15 | SOLID WASTE DISPOSAL - INDUSTRIAL<br>SOLID WASTE DISPOSAL: INDUSTRIAL - INCINERATION<br>SEWAGE SLUDGE INCINERATOR: MULTIPLE HEARTH |

**Facility Emissions Summary**

In the following table, the CAS No. or Chemical Abstract Service 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.

| Cas No. | Contaminant Name | PTE lbs/yr | Range |
|---|---|---|---|
| 000120-82-1 | 1,2,4-TRICHLOROBENZENE | > 0 | but < 10 tpy |
| 000107-06-2 | 1,2-DICHLOROETHANE | > 0 | but < 10 tpy |

| | | |
|---|---|---|
| 051207-31-9 | 2,3,7,8-TETRACHLORODIBENZOFURAN | > 0 but < 10 tpy |
| 001746-01-6 | 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN | > 0 but < 10 tpy |
| 000109-86-4 | 2-METHOXYETHANOL | > 0 but < 10 tpy |
| 000062-53-3 | ANILINE | > 0 but < 10 tpy |
| 007440-38-2 | ARSENIC | > 0 but < 10 tpy |
| 068131-74-8 | ASHES (RESIDUES) | >= 2.5 tpy but < 10 tpy |
| 007440-39-3 | BARIUM | > 0 but < 2.5 tpy |
| 000121-69-7 | BENZENAMINE, N, N-DIMETHYL | > 0 but < 10 tpy |
| 000071-43-2 | BENZENE | > 0 but < 10 tpy |
| 007440-41-7 | BERYLLIUM | > 0 but < 10 tpy |
| 000117-81-7 | BIS(2-ETHYLHEXYL) PHTHALATE | > 0 but < 10 tpy |
| 007440-43-9 | CADMIUM | > 0 but < 10 tpy |
| 000630-08-0 | CARBON MONOXIDE | >= 250 tpy but < 75,000 tpy |
| 007782-50-5 | CHLORINE | > 0 but < 10 tpy |
| 000067-66-3 | CHLOROFORM | > 0 but < 10 tpy |
| 001308-38-9 | CHROME (III) OXIDE | > 0 but < 10 tpy |
| 007440-47-3 | CHROMIUM | > 0 but < 10 tpy |
| 018540-29-9 | CHROMIUM(VI) | > 0 but < 10 tpy |
| 007440-48-4 | COBALT | > 0 but < 10 tpy |
| 007440-50-8 | COPPER | > 0 but < 2.5 tpy |
| 000075-09-2 | DICHLOROMETHANE | > 0 but < 10 tpy |
| 000064-17-5 | ETHYL ALCOHOL (ETHANOL) | > 0 but < 2.5 tpy |
| 000100-41-4 | ETHYLBENZENE | > 0 but < 10 tpy |
| 000050-00-0 | FORMALDEHYDE | > 0 but < 10 tpy |
| 000110-54-3 | HEXANE | > 0 but < 10 tpy |
| 007647-01-0 | HYDROGEN CHLORIDE | > 0 but < 10 tpy |
| 007439-92-1 | LEAD | > 0 but < 10 tpy |
| 007439-96-5 | MANGANESE | > 0 but < 10 tpy |
| 007439-97-6 | MERCURY | > 0 but < 10 tpy |
| 000067-56-1 | METHYL ALCOHOL | > 0 but < 10 tpy |
| 007439-98-7 | MOLYBDENUM | > 0 but < 2.5 tpy |
| 000091-20-3 | NAPHTHALENE | > 0 but < 10 tpy |
| 007440-02-0 | NICKEL METAL AND INSOLUBLE COMPOUNDS | > 0 but < 10 tpy |
| 0NY210-00-0 | OXIDES OF NITROGEN | >= 250 tpy but < 75,000 tpy |
| 0NY075-00-0 | PARTICULATES | >= 50 tpy but < 100 tpy |
| 000127-18-4 | PERCHLOROETHYLENE | > 0 but < 10 tpy |
| 000129-00-0 | PYRENE | > 0 but < 10 tpy |
| 007782-49-2 | SELENIUM | > 0 but < 10 tpy |
| 007446-09-5 | SULFUR DIOXIDE | >= 10 tpy but < 25 tpy |
| 000108-88-3 | TOLUENE | > 0 but < 10 tpy |
| 0NY100-00-0 | TOTAL HAP | >= 10 tpy but < 25 tpy |
| 000079-01-6 | TRICHLOROETHYLENE | > 0 but < 10 tpy |
| 0NY998-10-0 | UNSPECIATED VOC ( EMISSION STATEMENT USE ONLY) | >= 25 tpy but < 40 tpy |
| 007440-62-2 | VANADIUM | > 0 but < 2.5 tpy |
| 0NY998-00-0 | VOC | >= 40 tpy but < 50 tpy |
| 007440-66-6 | ZINC | > 0 but < 2.5 tpy |

## NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

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

An emergency, as defined by subpart 201-2, constitutes an affirmative defense to penalties sought in an enforcement action brought by the Department 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 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 and maintained;
(3) During the period of the emergency the facility owner 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 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 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 - 6 NYCRR 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 6 NYCRR 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 201-6.2(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 201-6.2(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 201-6.4(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 201-6.4(a)(3)**
This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

**Item G:** **Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR 201-6.4(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 201-6.4(a)(6)**
This permit does not convey any property rights of any sort or any exclusive privilege.

**Item I:** **Severability - 6 NYCRR Part 201-6.4(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 201-6.4(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 201-6.4(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 2 01-6.7 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 | ECL 19-0301 | 98 | Powers and Duties of the Department with respect to air pollution control |
| FACILITY | 40CFR 60-A | 29 | General provisions |
| FACILITY | 40CFR 60-A.12 | 31 | General provisions - Circumvention |
| FACILITY | 40CFR 60-A.13 | 32 | General provisions - Monitoring requirements |
| FACILITY | 40CFR 60-A.8 | 30 | General provisions - Performance tests |
| FACILITY | 40CFR 60-MMMM | 34 | Emission Guidelines and Compliance Times for Existing Sewage Sludge In cineration Units |
| FACILITY | 40CFR 60-MMMM.5130 | 35 | Trained Operators |
| FACILITY | 40CFR 60-MMMM.5135 | 36 | Schedule for Operator Training |

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| FACILITY | 40CFR 60-MMMM.5145 | 37 | Maintaining Operator Qualification |
| FACILITY | 40CFR 60-MMMM.5150 | 38 | Renewing Lapsed Operator Qualification |
| FACILITY | 40CFR 60-MMMM.5155 | 39 | Procedures When Qualified Operators are Temporarily not Accessible |
| FACILITY | 40CFR 60-MMMM.5160 | 40 | Operator Review of Site-Specific Documentation |
| FACILITY | 40CFR 60-MMMM.5165 | 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51 | Emission Limits, Emission Standards and Operating Limits |
| FACILITY | 40CFR 60-MMMM.5170 | 52 | Operating Limits and Requirements for SSI Units |
| FACILITY | 40CFR 60-MMMM.5170(f) | 53, 54 | Operating Limits and Requirements - Sludge Moisture |
| FACILITY | 40CFR 60-MMMM.5175 | 55 | Establish Operating Limits Without Specific Add-On Controls |
| FACILITY | 40CFR 60-MMMM.5180 | 56 | Application of Emission Limits, Standards, and Operating Limits During Startup, Shutdown, and Malfunction |
| FACILITY | 40CFR 60-MMMM.5185 | 57 | Demonstration of Initial Compliance with Emission Limits and Standards |
| FACILITY | 40CFR 60-MMMM.5190 | 58, 59 | Establishing Operating Limits |
| FACILITY | 40CFR 60-MMMM.5190(b) | 60 | Establishing Operating Limits - Pressure Drop |
| FACILITY | 40CFR 60-MMMM.5190(c) | 61 | Establishing Operating Limits - Minimum Scrubber Flow Rate |
| FACILITY | 40CFR 60-MMMM.5190(d) | 62 | Establishing Operating Limits - Scrubber Liquid pH |
| FACILITY | 40CFR 60-MMMM.5190(e) | 63 | Establishing Operating Limits - Minimum Combustion Temperature |
| FACILITY | 40CFR 60-MMMM.5195 | 64 | Schedule for Initial Air Pollution Control Device Inspection and Repairs |
| FACILITY | 40CFR 60-MMMM.5200 | 65 | Site-specific monitoring plan |
| FACILITY | 40CFR 60-MMMM.5205 | 66 | Demonstration of Continuous Compliance with Emission Limits and Standards |
| FACILITY | 40CFR 60- | 67 | Performance Testing |

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| | MMMM.5205(a)(3 | | Frequency |
| FACILITY | 40CFR 60-MMMM.5210 | 68 | Demonstration of Continuous Compliance With Operating Limits |
| FACILITY | 40CFR 60-MMMM.5215 | 69 | Air Polution Control Device Inspection and Repairs |
| FACILITY | 40CFR 60-MMMM.5220 | 70 | Performance testing, monitoring, and calibration requirments |
| FACILITY | 40CFR 60-MMMM.5225 | 71 | Monitoring and Calibration Requirments for Operating Limits |
| FACILITY | 40CFR 60-MMMM.5230 | 72, 73 | Recordkeeping |
| FACILITY | 40CFR 60-MMMM.5235 | 74 | Reporting Requirments |
| FACILITY | 40CFR 60-MMMM.5235(b) | 75 | Sewage Sludge Incineration - Initial Compliance Report |
| FACILITY | 40CFR 60-MMMM.5235(c) | 76 | Sewage Slude Incineration - Annual Compliance Report |
| FACILITY | 40CFR 60-MMMM.5235(d) | 77 | Sewage Sludge Incineration - Deviation Reports |
| U-00002/-/INC | 40CFR 60-O | 88 | Standards of Performance for Sewage Treatment Plants |
| U-00002/-/INC | 40CFR 60-O.152(a)(1) | 89 | Standards of Performance for Sewage Treatment Plants - standard for particulate matter |
| U-00002/-/INC | 40CFR 60-O.152(a)(2) | 90 | Standards of Performance for Sewage Treatment Plants - standard for particulate matter |
| U-00002/-/INC | 40CFR 60-O.153(a)(1) | 91 | Standards of Performance for Sewage Treatment Plants - monitoring of operations |
| FACILITY | 40CFR 60-O.153(a)(2) | 33 | Standards of Performance for Sewage Treatment Plants - monitoring of operations |
| U-00002/-/INC | 40CFR 60-O.153(b)(1) | 92 | Standards of Performance for Sewage Treatment Plants - monitoring of scrubber pressure drop. |
| U-00002/-/INC | 40CFR 60-O.153(b)(2) | 93 | Standards of Performance for Sewage Treatment Plants - monitoring of exhaust gas oxygen content. |
| U-00002/-/INC | 40CFR 60-O.153(b)(3) | 94 | Standards of |

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| | | | Performance for Sewage Treatment Plants - monitoring of operations |
| U-00002/-/INC | 40CFR 60-O.153(b)(4) | 95 | Standards of Performance for Sewage Treatment Plants - monitoring of operations |
| U-00002/-/INC | 40CFR 60-O.155(a)(1)(ii | 96 | Standards of Performance for Sewage Treatment Plants - test methods and procedures |
| FACILITY | 40CFR 61-A | 78 | General Provisions - applicability of part 61 |
| FACILITY | 40CFR 61-C | 79 | Standard for Beryllium: extraction plants, ceramic plants, foundries, incinerators, propellant plants and machine shops |
| FACILITY | 40CFR 61-C.32(a) | 80 | Beryllium: extraction plants, ceramic plants, foundries, incinerators, propellant plants,machine shops-emission standard |
| FACILITY | 40CFR 61-E | 81 | Standard for Mercury: Mercury Ore Processing, chlorine gas production, and sludge incineration |
| FACILITY | 40CFR 61-E.52(b) | 82 | Standard for Mercury: Mercury Ore Processing, chlorine gas production, and sludge incineration-emission standard |
| FACILITY | 40CFR 64 | 83 | COMPLIANCE ASSURANCE MONITORING |
| FACILITY | 40CFR 68 | 18 | Chemical accident prevention provisions |
| FACILITY | 40CFR 82-F | 19 | Protection of Stratospheric Ozone - recycling and emissions reduction |
| FACILITY | 6NYCRR 200.6 | 1 | Acceptable ambient air quality. |
| FACILITY | 6NYCRR 200.7 | 10, 20 | Maintenance of equipment. |
| FACILITY | 6NYCRR 201-1.4 | 99 | Unavoidable noncompliance and violations |
| FACILITY | 6NYCRR 201-1.7 | 11 | Recycling and Salvage |
| FACILITY | 6NYCRR 201-1.8 | 12 | Prohibition of reintroduction of collected contaminants to the air |

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| FACILITY | 6NYCRR 201-3 | 21 | Exemptions and Trivial Activities |
| 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 | 22, 84, 85 | Title V Permits and the Associated Permit Conditions |
| FACILITY | 6NYCRR 201-6.4(a)(4) | 15 | General Conditions - Requirement to Provide Information |
| FACILITY | 6NYCRR 201-6.4(a)(7) | 2 | General Conditions - Fees |
| FACILITY | 6NYCRR 201-6.4(a)(8) | 16 | General Conditions - Right to Inspect |
| FACILITY | 6NYCRR 201-6.4(c) | 3 | Recordkeeping and Reporting of Compliance Monitoring |
| FACILITY | 6NYCRR 201-6.4(c)(2) | 4 | Records of Monitoring, Sampling and Measurement |
| FACILITY | 6NYCRR 201-6.4(c)(3)(ii | 5 | Reporting Requirements - Deviations and Noncompliance |
| FACILITY | 6NYCRR 201-6.4(d)(4) | 23 | Compliance Schedules - Progress Reports |
| FACILITY | 6NYCRR 201-6.4(e) | 6 | Compliance Certification |
| FACILITY | 6NYCRR 201-6.4(f)(6) | 17 | Off Permit Changes |
| FACILITY | 6NYCRR 202-1.1 | 24 | Required emissions tests. |
| FACILITY | 6NYCRR 202-2.1 | 7 | Emission Statements - Applicability |
| FACILITY | 6NYCRR 202-2.5 | 8 | Emission Statements - record keeping requirements. |
| FACILITY | 6NYCRR 211.1 | 25 | General Prohibitions - air pollution prohibited |
| FACILITY | 6NYCRR 212-1.5(e)(1) | 26 | Demonstrating compliance with Part 212 through the federal NSPS |
| FACILITY | 6NYCRR 212-1.5(e)(2) | 27 | Demonstrating compliance for Part 212 through the federal NESHAP program |
| U-00002 | 6NYCRR 212-1.6(a) | 86 | Limiting of Opacity |
| FACILITY | 6NYCRR 212-2.1 | 100 | Requirements |
| FACILITY | 6NYCRR 212-2.1(a) | 101, 102 | HTACs applicable to Table 212-2.3 Table 4 |
| FACILITY | 6NYCRR 212-2.2 | 103, 104, 105, 106 | High Toxicity Air Contaminants (HTACs) Mass Emission Limits |
| FACILITY | 6NYCRR 212-3.1(c)(4)(i) | 28 | RACT compliance plan control limits for Capture and Control |
| FACILITY | 6NYCRR 215.2 | 9 | Open Fires - Prohibitions |
| U-00002/-/BOI | 6NYCRR 227-2.4(c)(1)(ii | 87 | 2010 NOx RACT presumptive limit. |

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| U-00003/-/SDI | 6NYCRR 227-2.4(g) | 97 | Other combustion installations. |

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

ECL 19-0301
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.

6 NYCRR 200.6
Acceptable ambient air quality - prohibits contravention of ambient air quality standards without mitigating measures

6 NYCRR 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

6 NYCRR 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.

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

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

6 NYCRR 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.

6 NYCRR 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.

6 NYCRR Subpart 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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 201-6.4 (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.

6 NYCRR 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.

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

6 NYCRR 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.

6 NYCRR 215.2
Except as allowed by section 215.3 of 6 NYCRR Part 215, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

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, BIRD ISLAND STP has been determined to be subject to the following regulations:
40 CFR 60.12
This regulation prohibits an owner or operator from concealing emissions in violation of applicable standards by any means.

40 CFR 60.13
This regulation specifies how monitoring shall be performed and which methods and appendices are used

to determine if the monitoring is adequate and in compliance with the regulated standards.

40 CFR 60.152 (a) (1)
This condition details the monitoring requirements for meeting the particulate emissions limit of 0.65 g/kg dry sludge input (1.30 lb/ton dry sludge input).

40 CFR 60.152 (a) (2)
This condition states that particulate emissions may not exceed 20 percent opacity.

40 CFR 60.153 (a) (1)
This condition describes the requirements for the flow measuring device used to monitor the amount of sludge charged to the incinerator. It requires the monitor to operate continuously (except as provided) and to be accurate to ±5 percent

40 CFR 60.153 (a) (2)
This condition requires access to the sludge flow so that samples may be obtained.

40 CFR 60.153 (b) (1)
This condition requires a facility with an incinerator equipped with a wet scrubbing device to install, calibrate, maintain and operate a monitoring device that continuously measures and records the pressure drop of the gas flow through the wet scrubbing device.

40 CFR 60.153 (b) (2)
This condition requires the owner or operator of a sludge incinerator to install, calibrate, maintain and operate a monitoring device that continuously measures and records the oxygen content of the incinerator exhaust gas.

40 CFR 60.153 (b) (3)
This condition requires the owner or operator of a sludge incinerator to install, calibrate, maintain and operate temperature measuring devices. It describes the locations and number of temperature monitoring devices to be installed and how they are to be operated.

40 CFR 60.153 (b) (4)
This condition states that the owner or operator must install, calibrate, maintain and operate a device for measuring the fuel flow to the incinerator and meet certain parameters of operation.

40 CFR 60.155 (a) (1) (ii)
This condition requires the semiannual reporting of excessive emissions from wet scrubbers used on sludge incinerators based on pressure drop.

40 CFR 60.5130

This section contains the operator training and qualification requirements for operators of sewage sludge incineration units.

40 CFR 60.5135

This section contains compliance deadlines for the sewage sludge operator training course.

40 CFR 60.5145

This section requires the completion of an annual refesher course to maintain qualifications to operate a sewage sludge incinerator.

40 CFR 60.5150

This section specifies how to renew a lapsed operator training qualification for sewage sludge incinerators.

40 CFR 60.5155

This section describes the procedures the facility owner or operator must follow if all of the qualified operators are not available.

40 CFR 60.5160

This section specifies the site-specific documentation of operator training procedures that is required and how often it must be reviewed by qualified operators and plant personnel.

40 CFR 60.5165

This section describes the various emission limits that the owner or operator of a sewage sludge incinerator is required to meet in order to demonstrate compliance with Subpart MMMM.

40 CFR 60.5170

This section specifies operating limits and requirements that must be met for the sewage sludge incinerators, control equipment and the ash handling system.

40 CFR 60.5170 (f)

This section requires the facility owner or operator to monitor certain characteristics of the sewage sludge fed to the incineration unit.

40 CFR 60.5175

This section specifies requirements for establishing operating limits if the facility owner or operator does not use a wet scrubber, fabric filter, electrostatic precipitator, activated carbon injection, or afterburner, or if they limit emissions in some other manner, to comply with the emission limits under 40CFR60 Subpart MMMM.

40 CFR 60.5180

This section states that the emission limits established under Subpart MMMM apply at all times sewage sludge is present in the combustion chamber, including periods of start-up, shut down, and malfunction.

40 CFR 60.5185

This section describes how the owner or operator of a sewage sludge incineration unit must demonstrate initial compliance with the requirements of 40 CFR 60 Subpart MMMM.

40 CFR 60.5190

This section specifies how to establish the site-specific operating limits specified in this section or established in §60.5175 during the inital performance test required in §60.5185.

40 CFR 60.5190 (b)

This section requires that the facility establish the minimum pressure drop across the wet scrubber during each performance test in order to demonstrate compliance with the requirements of Subpart MMMM.

40 CFR 60.5190 (c)

This section requires that the facility establish the minimum wet scrubber liquid flow rate during each performance test in order to demonstrate compliance with the requirements of Subpart MMMM.

40 CFR 60.5190 (d)
This section requires that the facility establish the minimum scrubber liquid pH during each performance test in order to demonstrate compliance with the requirements of Subpart MMMM.

40 CFR 60.5190 (e)
This section requires that the facility owner or operator establish the minimum combustion chamber operating temperature (or afterburner temperature) during each performance test to demonstrate compliance with the requirements of Subpart MMMM.

40 CFR 60.5195
This section requires the facility owner or operator to conduct an initial air pollution control device inspection within 60 days after installation of the control device.

40 CFR 60.5200
This section requires the owner or operator of a Sewage Sludge Incineration (SSI) unit to develop and implement a site-specific monitoring plan for the SSI unit.

40 CFR 60.5205
This section describes the methods that the owner or operator of a sewage sludge incineration unit must use to demonstrate continuous compliance with the standards and limitations of 40 CFR 60 Subpart MMMM.

40 CFR 60.5205 (a) (3)
This section describes when the owner or operator of a sewage sludge incineration unit may conduct performance testing at a reduced frequency.

40 CFR 60.5210
This section requires the continuous monitoring of operating parameters for the sewage sludge incinerator and associated control equipment. Operating limits must be confirmed and re-established based on the most recent performance test. Deviations must be reported semiannually. An annual compliance report is required.

40 CFR 60.5215

This section requires that the facility owner or operator to conduct an annual inspection of the air pollution control device(s) installed at the facility and make any necessary repairs.

40 CFR 60.5220

The owner or operator of a Sewage Sludge Incineration (SSI) unit must meet, as applicable, the performance testing requirements, the monitoring requirements, the air pollution control device inspection requirements, and the bypass stack provisions specified in this section.

40 CFR 60.5225

The section requires the owner or operator of a Sewage Sludge Incinerator (SSI) to install, operate, calibrate, and maintain the continuous parameter monitoring systems according to the requirements in this section and in accordance with the monitoring plan. If the SSI unit has a bypass stack, the facility must install, calibrate (to manufacturers' specifications), maintain, and operate a device or method for measuring the use of the bypass stack including date, time, and duration.

40 CFR 60.5230

This section describes the type and format of records that the owner or operator of a sewage sludge incinerator must keep in order to demonstrate compliance with 40 CFR 60 Subpart MMMM.

40 CFR 60.5235

The owner or operator of a Sewage Sludge Incinerator must submit the reports specified in this section, as required. See Table 6 to this subpart for a summary of these reports.

40 CFR 60.5235 (b)

This section requires the facility owner or operator to submit an initial compliance report to the Department.

40 CFR 60.5235 (c)

This section requires the facility owner or operator to submit annual compliance reports to the Department.

40 CFR 60.5235 (d)
This section requires the facility owner or operator to submit semiannual deviation reports to the Department.

40 CFR 60.8
This general provision of the New Source Performance Standards or NSPS, sets forth the performance test requirements for all NSPS applicable sources. Basically, all performance tests must be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup using procedures consistent with methods and procedures approved by the Administrator.

40 CFR 61.32 (a)
This regulation sets the standard for beryllium emissions from incinerators that process beryllium containing waste, in this case sewage sludge. The emission standard is not to exceed 10 grams of beryllium over a 24-hour period.

40 CFR 61.52 (b)
This regulation sets the standard for mercury emissions from sludge incineration plants and/or sludge drying plants that process wastewater treatment plant sludges. The emission standard is not to exceed 3,200 grams of mercury per 24-hour period.

40 CFR Part 60, Subpart A
This regulation contains the General Provisions of 40 CFR 60. The facility owner is responsible for reviewing these general provisions in detail and complying with all applicable technical, administrative and reporting requirements

40 CFR Part 60, Subpart MMMM
BSA is responsible for complying with all applicable technical, administrative and reporting requirements specified in 40 CFR 60 Subpart MMMM and in this Air Title V permit.

40 CFR Part 60, Subpart O
40CFR60 Subpart O specifies standards of performance for incinerators that combust municipal sewage sludge and that commence construction or modification after June 11, 1973.

40 CFR Part 61, Subpart A

This regulation, 40 CFR 61 Subpart A, lists the general provisions that a facility subject to a National Emissions Standard for Hazardous Air Pollutant is subject to.

40 CFR Part 61, Subpart C
40 CFR 61 Subpart C specifies a national emission standard for beryllium that applies to extraction plants, ceramic plants, foundries, incinerators, and propellant plants which process beryllium ore, beryllium, beryllium oxide, beryllium alloys, or beryllium-containing waste.

40 CFR Part 61, Subpart E
40 CFR 61 Subpart E specifies a national emission standard for mercury that applies to stationary sources which incinerate or dry wastewater treatment plant sludge.

40 CFR Part 64
The federal Compliance Assurance Monitoring (CAM) rule, 40 CFR Part 64, requires monitoring of control device, capture system, and/or process parameters to provide a reasonable assurance of compliance with emission limitations or standards. It applies to emission units that use a control device to comply with certain standards and limitations and that have potential pre-control device emissions equal to or greater than a major source threshold.

Acid Rain program requirements; stratospheric ozone protection requirements; post-1990 New Source Performance Standards, Emission Guidelines, and National Emission Standards for Hazardous Air Pollutants; and some other limitations are exempt from CAM. However, many of the exempt requirements are subject to less stringent periodic monitoring under 40 CFR Part 70 and 6NYCRR Subpart 201-6.

6 NYCRR 211.1
This regulation requires that no person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property.

6 NYCRR 212-1.5 (e) (1)
A process emission source subject to a Federal NSPS under 40 CFR Part 60 (see Table 1, Section 200.9 of this Title) satisfies the requirements of this Part for the respective air contaminant regulated by the Federal standard if the facility owner or operator can demonstrate that the facility is in compliance with the relevant Federal regulation.

6 NYCRR 212-1.5 (e) (2)
A process emission source subject to the Federal National Emission Standards for Hazardous Air Pollutants (NESHAP) satisfies the requirements of Part 212 for the respective air contaminant regulated by the Federal standard.

However, NESHAPs regulating High Toxicity Air Contaminants (HTACs) must provide evidence that the maximum offsite ambient air concentration is less than the AGC/SGC and that emissions are less than the PB trigger for the respective air contaminant.

6 NYCRR 212-1.6 (a)
This provisions requires that the facility owner or operator not cause or allow emissions having an average opacity during any six consecutive minutes of 20 percent or greater from any process emission source or emission point, except for the emission of uncombined water.

6 NYCRR 212-2.1
Emissions of air contaminants to the outdoor atmosphere from any process emission source or emission point are restricted as follows:
(a) For an air contaminant listed in section 212-2.2 table 2 – high toxicity air contaminant list, of this Subpart, the facility owner or operator shall either limit the actual annual emissions from all process operations at the facility so as to not exceed the mass emission limit listed for the individual HTAC; or demonstrate compliance with the air cleaning requirements for the HTAC as specified in subdivision 212-2.3(b), table 4 – degree of air cleaning required for non-criteria air contaminants, of this Subpart for the environmental rating assigned to the contaminant by the department.
(b) For any air contaminant not listed on table 2, unless it is a solid particulate described in subdivision (c) of this section, the facility owner or operator shall not allow emissions of an air contaminant to violate the requirements specified in subdivision 212-2.3(a), table 3 – degree of air cleaning required for criteria air contaminants of this Subpart, or subdivision 212-2.3(b), table 4 – degree of air cleaning required for non-criteria air contaminants of this Subpart, as applicable, for the environmental rating assigned to the contaminant by the department.
(c) For a solid particulate assigned an environmental rating of B or C emitted from a process emission source, the facility owner or operator shall not allow emissions of particulate to exceed the requirements specified in section 212-2.4 of this Subpart.

6 NYCRR 212-2.1 (a)
This provision is for an air contaminant listed in Section 212-2.2 Table 2 - High Toxicity Air Contaminant List (HTAC). The facility owner or operator must either limit

the actual annual emissions from all process operations at the facility so as to not exceed the mass emission limit listed for the individual HTAC; or demonstrate compliance with the air cleaning requirements for the HTAC as specified in Subdivision 212-2.3(b), Table 4.

6 NYCRR 212-2.2

Table 2 of 212-2.2 lists the compounds eligible for the alternative compliance option. The table lists actual annual mass emission limits for select compounds. The mass emission limit represents a conservative offsite concentration which will be below the respective annual guideline concentration for the particular air contaminant.

6 NYCRR 212-3.1 (c) (4) (i)

This provision specifies that VOC emission points that are equipped with a capture system and a control device with an overall removal efficiency of at least 81 percent are equipped with reasonably available control technology.

6 NYCRR 227-2.4 (c) (1) (ii)
Future NOx RACT presumptive limit effective 7/1/14.

6 NYCRR 227-2.4 (g)
This subdivision establishes NOx RACT for emission sources that are subject to this rule but not specifically regulated under the other source categories of this rule.

6 NYCRR Subpart 201-3
Subpart 201-3 contains a listing of exempt and trivial activities. If the facility owner and/or operator performs any of the exempt and trivial activities listed, these activities are exempt from the permitting provisions of 6 NYCRR Parts 201-4, 201-5 and 201-6. This does not mean that these activities are exempted from other applicable requirements or from applicable registration and/or permitting requirements of local air pollution control agencies. Failure to operate and maintain an exempt or trivial activity and/or associated control equipment in accordance with §201-3 and in a manner consistent with manufacturer's specifications and good engineering practices, is a violation of 6NYCRR Part 201.All exempt activities must be listed in Title V permit applications. All exempt and trivial activities must be included in any potential to emit calculations.

**Compliance Certification**
**Summary of monitoring activities at BIRD ISLAND STP:**

| Location Facility/EU/EP/Process/ES | Cond No. | Type of Monitoring |
|---|---|---|
| FACILITY | 32 | record keeping/maintenance procedures |
| FACILITY | 30 | record keeping/maintenance procedures |
| FACILITY | 34 | record keeping/maintenance procedures |
| FACILITY | 35 | record keeping/maintenance procedures |
| FACILITY | 36 | record keeping/maintenance procedures |
| FACILITY | 37 | record keeping/maintenance procedures |
| FACILITY | 38 | record keeping/maintenance procedures |
| FACILITY | 39 | record keeping/maintenance procedures |
| FACILITY | 40 | record keeping/maintenance procedures |

| | | |
|---|---|---|
| FACILITY | 41 | intermittent emission testing |
| FACILITY | 42 | intermittent emission testing |
| FACILITY | 43 | intermittent emission testing |
| FACILITY | 44 | intermittent emission testing |
| FACILITY | 45 | intermittent emission testing |
| FACILITY | 46 | monitoring of process or control device parameters as surrogate |
| FACILITY | 47 | intermittent emission testing |
| FACILITY | 48 | intermittent emission testing |
| FACILITY | 49 | intermittent emission testing |
| FACILITY | 50 | intermittent emission testing |
| FACILITY | 51 | intermittent emission testing |
| FACILITY | 52 | record keeping/maintenance procedures |
| FACILITY | 53 | record keeping/maintenance procedures |
| FACILITY | 54 | work practice involving specific operations |
| FACILITY | 55 | record keeping/maintenance procedures |
| FACILITY | 56 | record keeping/maintenance procedures |
| FACILITY | 57 | record keeping/maintenance procedures |
| FACILITY | 58 | monitoring of process or control device parameters as surrogate |
| FACILITY | 59 | record keeping/maintenance procedures |
| FACILITY | 60 | monitoring of process or control device parameters as surrogate |
| FACILITY | 61 | monitoring of process or control device parameters as surrogate |
| FACILITY | 62 | monitoring of process or control device parameters as surrogate |
| FACILITY | 63 | monitoring of process or control device parameters as surrogate |
| FACILITY | 64 | record keeping/maintenance procedures |
| FACILITY | 65 | record keeping/maintenance procedures |
| FACILITY | 66 | record keeping/maintenance procedures |
| FACILITY | 67 | record keeping/maintenance procedures |
| FACILITY | 68 | record keeping/maintenance procedures |
| FACILITY | 69 | record keeping/maintenance procedures |
| FACILITY | 70 | record keeping/maintenance procedures |
| FACILITY | 71 | record keeping/maintenance procedures |
| FACILITY | 72 | record keeping/maintenance procedures |
| FACILITY | 73 | record keeping/maintenance procedures |
| FACILITY | 74 | record keeping/maintenance procedures |
| FACILITY | 75 | record keeping/maintenance procedures |
| FACILITY | 76 | record keeping/maintenance procedures |
| FACILITY | 77 | record keeping/maintenance procedures |
| U-00002/-/INC | 88 | record keeping/maintenance procedures |
| U-00002/-/INC | 89 | intermittent emission testing |
| U-00002/-/INC | 90 | monitoring of process or control device parameters as surrogate |
| U-00002/-/INC | 91 | record keeping/maintenance procedures |
| U-00002/-/INC | 92 | record keeping/maintenance procedures |
| U-00002/-/INC | 93 | monitoring of process or control device parameters as surrogate |
| U-00002/-/INC | 94 | record keeping/maintenance procedures |
| U-00002/-/INC | 95 | record keeping/maintenance procedures |
| U-00002/-/INC | 96 | record keeping/maintenance procedures |
| FACILITY | 79 | record keeping/maintenance procedures |
| FACILITY | 80 | monitoring of process or control device parameters as surrogate |
| FACILITY | 81 | record keeping/maintenance procedures |
| FACILITY | 82 | monitoring of process or control device parameters as surrogate |
| FACILITY | 83 | record keeping/maintenance procedures |
| FACILITY | 20 | record keeping/maintenance procedures |
| FACILITY | 21 | record keeping/maintenance procedures |
| FACILITY | 5 | record keeping/maintenance procedures |

| | | |
|---|---|---|
| FACILITY | 6 | record keeping/maintenance procedures |
| FACILITY | 7 | record keeping/maintenance procedures |
| FACILITY | 26 | record keeping/maintenance procedures |
| FACILITY | 27 | record keeping/maintenance procedures |
| U-00002 | 86 | monitoring of process or control device parameters as surrogate |
| FACILITY | 100 | record keeping/maintenance procedures |
| FACILITY | 101 | record keeping/maintenance procedures |
| FACILITY | 102 | record keeping/maintenance procedures |
| FACILITY | 103 | work practice involving specific operations |
| FACILITY | 104 | work practice involving specific operations |
| FACILITY | 105 | work practice involving specific operations |
| FACILITY | 106 | work practice involving specific operations |
| FACILITY | 28 | monitoring of process or control device parameters as surrogate |
| U-00002/-/BOI | 87 | intermittent emission testing |
| U-00003/-/SDI | 97 | monitoring of process or control device parameters as surrogate |

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**Basis for Monitoring**

## Basis for Monitoring

The following is a brief explanation or justification for each monitoring activity.

## 6NYCRR212:

Monitoring Condition No 28: 6NYCRR Part 212-3.1(c)(4)(i)

This regulation is included to establish a minimum overall removal efficiency of 81 percent for volatile organic carbon (VOC) emissions to meet Reasonably Available Control Technology (RACT) requirements. VOCs generated by the incinerators are controlled with afterburners. The temperature of the afterburners and combustion temperature are monitored continuously to meet limits set elsewhere in the permit under 40CFR60 Subpart MMMM and 40 CFR 503, respectively (Clean Water Act (CWA) regulation contained in DEC portion of title V permit that regulates incineration of sewage sludge). Annual performance tests required under 40CFR60 Subpart MMMM will verify compliance with the temperature limit for the afterburner. The concentration of total hydrocarbons in the exhaust from the incinerators are limited to 100 ppm and are monitored continuously in accordance with 40CFR503 regulations under the CWA. Compliance with the temperature limits and total hydrocarbon limit will ensure compliance with VOC RACT requirements. VOCs emitted from the digesters are controlled by flares. This monitoring condition requires proper operation, monitoring and maintenance of the flares to ensure compliance with VOC RACT.

Monitoring Condition Nos. 101 and 102: 6NYCRR212-2.1(a)

High toxicity air contaminants, arsenic and mercury, are emitted from the incineration process. Mercury is also regulated under 40CFR60 Subpart MMMM and 40CFR61 Subpart E. Compliance with both of these requirements has been demonstrated through performance tests. To comply with 6NYCRR212 requirements for mercury, BSA must provide a Toxic Impact Assessment (TIA), which is an inhalation risk assessment that is supported by a protocol describing the procedures to be used to

predict maximum offsite ambient air concentrations. The TIA must demonstrate that the maximum offsite ambient air concentration of mercury is less than its Annual Guideline Concentration and Short-term Guideline Concentration (AGC and SGC). Compliance with mercury's persistent and bioaccumulative (PB) trigger must also be evaluated. Since the actual annual emissions of arsenic exceed the mass emission limit (MEL) specified in Table 2 of 6NYCRR 212-2, BSA is required to predict the offsite ambient concentration of arsenic from BSA's incinerators using a NYSDEC/USEPA approved dispersion model. If the maximum offsite ambient concentrations of mercury and arsenic do not exceed their SGC and/or AGC and the annual mass emissions of mercury are less than its PB trigger, then compliance with 6NYCRR212 requirements will have been demonstrated. Arsenic and mercury emissions must be monitored annually to ensure that emissions can still meet the respective AGC and/or SGC and mercury's PB trigger. If offsite ambient concentrations of mercury or arsenic are greater that their respective SGC and/or AGC, then BSA must conduct a Toxic-Best Available Control Technology (T-BACT) Analysis in accordance with DAR-1 guidance and fulfill T-BACT requirements based on the NYSDEC approved analysis.

Monitoring Condition Nos. 103, 104, 105 and 106: 6NYCRR212-2.2

High toxicity air contaminants, beryllium, chromium, and nickel are emitted from the incineration process. Based on performance test results, the actual annual emissions of each of these contaminants is less than their respective mass emission limit (MEL) specified in Table 2 of 6NYCRR 212-2. BSA must monitor the actual annual emissions of each of these contaminants to ensure continued compliance with 6NYCRR212-2 requirements.

BSA must include chromium VI (Cr (VI)) in the next performance test to verify its presence in the sewage sludge and in emissions from the incinerator. If present, BSA must determine actual annual emissions of CR (VI) to verify that they are less than the MEL. If so, BSA will only need to track Cr (VI) annually to verify continued compliance. If Cr (VI) emissions exceed the MEL, BSA must use an approved air quality model to verify that the maximum offsite ambient concentration of Cr (VI) is less than its AGC. If the AGC is exceeded, BSA must conduct a T-BACT analysis. If Cr (VI) is not present nothing more needs to be done.

## 40CFR60 Subpart MMMM:

Monitoring Condition Nos. 41-51: 40CFR60.5165

This requirement specifies emission limits for nine contaminants, including sulfur dioxide (SO2), oxides of nitrogen (NOx), carbon monoxide (CO), lead (Pb), cadmium (Cd), mercury (Hg), dioxins/furans, hydrogen chloride (HCl), and particulates. Annual Performance tests are required to verify compliance with these limits. Monitoring of scrubber parameters and afterburner temperatures based on performance test results is required under 60.5190. Compliance with these operating limits will ensure compliance with the specified pollutant limits.

Monitoring Condition Nos. 53 and 54: 40CFR60.5170 (f)

BSA must continuously monitor and record the feed rate of sewage sludge to the Sewage Sludge Incineration (SSI) unit and calculate a 24-hour rolling average for all hours of operation. BSA must also maintain a record of the daily average moisture content of sewage sludge fed to the SSI unit. This requires at least one grab sample taken per day of the sewage sludge fed to the SSI unit. This is used to calculate the

daily average moisture content of the sewage sludge fed to the SSI. The average percent solids in the sludge incinerated during the June 18, 2014 performance test was 29.4%. The moisture content is necessary to determine dry tons of sludge fed to INC 2, which is limited to 61.92 dry tons per day based on the maximum feed rate determined during the June 18, 2014 performance test for INC 2. Each SSI will have its own feed rate limit established during the performance test. The facility owner or operator shall maintain a record of each daily average moisture content calculated pursuant to this condition at the facility for a period of at least five years. Such records must be made available to the Department upon request.

Monitoring Condition Nos. 58-63: 40CFR60.5190, 40CFR60.5190(b), (c), (d) and (e)

The operating parameters recorded during the latest performance test that verified compliance with the pollutant limits have been established as operating limits in the Air Title V permit. Operating limits include the minimum total pressure drop across the scrubber system, the minimum flow rate into the scrubber, the minimum pH of the scrubber fluid at the outlet of the scrubber, and the minimum exit temperature of the afterburner. Continuous compliance with these limits will ensure compliance with the pollutant limits specified under §60.5165.

## 6NYCRR 227-2

Monitoring Condition No. 87: 6NYCRR Part 227-2.4(c)(1)(ii)

This regulation limits oxides of nitrogen (NOx) emissions from three auxiliary boilers to 0.05 lb NOx/MMBTU. Compliance is achieved by use of low NOx burners. A stack test to demonstrate compliance is required per term of permit for each boiler.

Monitoring Condition No. 97: 6NYCRR Part 227-2.4(g)

Digester gas generated by the anaerobic digestion of sewage sludge is used to fuel the auxiliary boilers, to supplement the incinerators, and fuel the afterburners. When necessary, excess digester gas is flared to destroy hydrocarbons. This condition requires that the flare be continuously lit, when used to control hydrocarbons.

## 40CFR60 Subpart O

Monitoring Condition No. 89: 40 CFR 60.152(a)(1), NSPS Subpart O

This is the stack test requirement to meet the 1.30 pounds of particulate per ton of sludge feed limit in the regulation. A stack test is required per permit term to demonstrate compliance and set up surrogate monitoring conditions.

Monitoring Condition No. 90: 40 CFR 60.152(a)(2), NSPS Subpart O

This portion of the regulation limits opacity from the incinerators to less than 20%. The condition requires observation of the stack plume once per shift during daylight hours and how to proceed if any opacity is noted.

Monitoring Condition No. 91: 40 CFR 60.153(a)(1), NSPS Subpart O

This portion of the regulation requires the facility to measure volume of sludge fed to the incinerators. The limit is established during the stack test and is a parameter that prevents overcharging and subsequent exceedance of the particulate limit.

Monitoring Condition No. 33: 40 CFR 60.153(a)(2), NSPS Subpart O

This portion of the regulation requires access to the sludge for sampling. Sampling of sludge is used to determine changes in the characteristics of the sludge which may lead to a particulate standard exceedance.

Monitoring Condition No. 92: 40 CFR 60.153(b)(1), NSPS Subpart O

This portion of the regulation establishes the minimum differential pressure limit for the scrubbers. This is a surrogate monitoring condition which infers compliance with the particulate standard if appropriate differential water pressure is maintained. The regulation allows a 30% reduction in the total differential pressure across the wet scrubber system, when an average particulate emission rate of 0.75 lb/ton dry sludge input or less is achieved during the most recent performance test.

Monitoring Condition No. 93: 40 CFR 60.153(b)(2), NSPS Subpart O

This portion of the regulation states the maximum oxygen limit in the incinerator exhaust gas. This is established during the stack test and insures proper combustion and control particulate emissions. Low oxygen levels reduce NOx formation. This parameter is continuously monitored. The regulation allows a 3% increase in average oxygen content recorded during the most recent performance test to set an upper limit on oxygen content in the incinerator exhaust, measured upstream of any rabble shaft cooling air inlet into the incinerator exhaust gas stream, fan, ambient air recirculation damper, or any other source of dilution air.

Monitoring Condition No. 94: 40 CFR 60.153(b)(3), NSPS Subpart O

This portion of the regulation requires the installation, calibration, maintenance and operation of temperature measuring devices at every hearth in the incinerator. Continuous operation and recording of temperature is only required if the particulates exceed 0.75 lb PM/ton dry sludge input during the most recent performance test.

Monitoring Condition No. 95: 40 CFR 60.153(b)(4), NSPS Subpart O

This portion of the regulation requires the installation, calibration, maintenance and operation of a device to measure fuel flow to the incinerator. Continuous operation and recording of fuel flow to the incinerator is only required if the particulate emissions exceed 0.75 lb PM/ton dry sludge input during the most recent performance test.

## 40CFR61 Subpart C

Monitoring Condition No. 80: 40 CFR 61.32(a) NESHAP Subpart C

This regulation limits Beryllium emissions from sewage sludge incinerators. To verify compliance with the limit of 10 grams beryllium per day specified in this regulation, a performance test must be conducted at least once per term of permit.

## 40CFR61 Subpart E

Monitoring Condition No. 82: 40 CFR 61.52(b), NESHAP Subpart E

This regulation limits mercury emissions from sewage sludge incinerators. To verify compliance with the limit of 3200 grams mercury per day specified in this regulation, a performance test must be conducted at least once per term of permit.

## 40CFR64

Monitoring Condition No. 83: 40 CFR 64 Compliance Assurance monitoring

This regulation requires major sources of emissions prior to control to review the monitoring parameters and add additional conditions to insure proper operation of the control equipment. BSA submitted a CAM plan which detailed additional water pressure parameters for pumps serving the scrubbers. The CAM Plan must be updated, as necessary, when changes/updates in equipment, operations, monitoring, requirements, etc. occur. The CAM plan with the details of the limits is Part of the permit under this condition.