

# PERMIT Under the Environmental Conservation Law (ECL)

### IDENTIFICATION INFORMATION

Permit Type: Air Title V Facility Permit ID: 9-1402-00154/00007

Effective Date: 09/09/2016 Expiration Date: 09/08/2021

Permit Issued To:BUFFALO SEWER AUTHORITY

1038 CITY HALL

BUFFALO, NY 14202-3310

Facility: BIRD ISLAND STP

90 W FERRY ST

BUFFALO, NY 14213-7999

Contact: MICHAEL A LETINA

**BUFFALO SEWER AUTHORITY TREATMENT PLANT** 

90 W FERRY ST BUFFALO, NY 14213 (716) 851-4664

### Description:

The Buffalo Sewer Authority (BSA) owns and operates Bird Island Sewage Treatment Plant (STP), a Class A Special Wastewater Treatment Facility that discharges into the international boundary water of the Niagara River. The Facility services the Buffalo area 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 at the Bird Island STP. Primary treatment facilities were placed into service in 1938. Full secondary treatment facilities were added and placed into service in 1981. The plant was designed around an average flow of 180 million gallon per day (MGD) with a peak flow of 563 MGD and a peak secondary flow of 360 MGD. Wastewater treatment at Bird Island STP 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 Bird Island STP includes dissolved air flotation thickeners, sludge digestion, sludge mixing tanks, centrifuges for sludge dewatering, and sewage sludge incineration. The BSA also receives undigested sewage sludge from Wastewater Treatment Plants (WWTPs) operated by the Town of Amherst and the Town of Tonawanda for disposal through incineration at Bird Island STP. Incinerator ash is disposed by landfilling. The Facility is also capable of landfilling the dewatered sludge in lieu of incineration, if necessary.

This title V permit is a renewal of the existing permit which regulates emissions from sources contained in Emission Unit (EU) U-00002 and EU U-00003 at Bird Island STP. Emission Unit U-00002 is the Main Stack and the Main Equipment Building (MEB). The Main Stack exhausts contaminants to the ambient air from several emission sources (ES) located in the MEB. EU U-00002 contains three multiple hearth sewage sludge incinerators (SSIs), identified as ES



0000D (INC 1), ES 0000E (INC 2) and ES 0000F (INC 3); three auxiliary steam generating boilers, identified as ES 00001 (Boiler 1), ES 00005 (Boiler 2) and ES 00009 (Boiler 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; EP 000CA, EP 000CB, EP 000CC; and EP ASHHA, respectively. EP INC1, EP INC2, EP INC3 and EP ASHHA are not actual emission points, but are the ducts that lead to the Main Stack from each associated emission source. Emissions from the incinerators are controlled by afterburners and wet scrubbers. Particulate emissions generated during the conveyance of ash from the incinerators are controlled by a wet scrubber after discharging ash to one of two silos. Fugitive particulates generated during handling of silo ash are controlled by ash conditioning prior to load out for offsite disposal. The boilers are each equipped with a low NO<sub>X</sub> burner to control NO<sub>X</sub> emissions generated from the combustion of biogas or natural gas. During 2015, BSA replaced the low NOx burner on Boiler 1. Instead of continuing to duct emissions to the Main Stack, the BSA installed a new stack for EP 000CA to exhaust contaminants directly from Boiler 1 to the atmosphere. The exhaust from Boiler 2 and Boiler 3 are currently ducted to the Main Stack. However, BSA will vent EP 000CB and EP 000CC directly to the ambient air when these boilers are upgraded in the near future. The Title V permit was modified to reflect these upcoming changes. The 2015 boiler project included the installation of Autoflame exhaust gas analyzers on each boiler to control combustion and improve boiler efficiency. Emission Unit U-00003 contains six anaerobic digesters, identified as Process SDI and Emission Source (ES) SDIII, which generate biogas from waste sewage sludge. The biogas is stored in a sphere until it is used to fuel the auxiliary boilers and provide supplemental fuel to the incinerators, when needed. Natural gas is available as a backup fuel for the incinerators and boilers if biogas is not available. Two waste gas burners, used to dispose of excess biogas when necessary, are identified as ES FLAR3 and FLAR4. The emission points associated with the flares are EP 00SD3 and EP 00SD4, respectively.

New requirements under 40 CFR Part 60- Standards of Performance for New Stationary Sources (NSPS), Subpart MMMM - Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units (full compliance deadline: March 21, 2016), 6NYCRR Part 212 General Process Emission Sources (effective June 14, 2015) and 6NYCRR227-2 Reasonably Available Control Technology (RACT) for Major Facilities of Oxides of Nitrogen (NO<sub>x</sub>) (effective July 1, 2014) were added to the title V permit as part of this renewal. In addition to 40 CFR Part 60, Subpart MMMM, emissions from the SSIs are subject to federal regulations including NSPS 40 CFR Part 60, Subpart O and National Emission Standards for Hazardous Air Pollutants (NESHAPs) - 40 CFR Part 61, Subpart C and 40 CFR Part 61, Subpart E. The contaminants regulated under the NSPSs include cadmium, lead, mercury, sulfur dioxide (SO<sub>2</sub>), NO<sub>x</sub>, carbon monoxide (CO), dioxans/furans (PCDD/PCDF), hydrogen chloride (HCl) and particulates (PM). The contaminants regulated under the NESHAPs are beryllium and mercury, respectively. To ensure compliance with the limits specified in the NSPSs, NESHAPs and 6NYCRR212, operating limits for incinerators, wet scrubbers and other equipment established during the performance tests are included in the title V permit. High toxicity air contaminants (HTACs) listed in Table 2 of 6NYCRR212-2, including arsenic, mercury, beryllium, nickel, chromium (Cr) and Cr (VI) and volatile organic compounds are regulated at Bird Island STP under 6 NYCRR Part 212. In accordance with 6NYCRR212-1.5(e)(1), a process emission source subject to a Federal NSPS under 40 CFR Part 60 satisfies the requirements of Part 212 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. Based on performance test results for rehabilitated INC 2, compliance has been demonstrated for all contaminants regulated under 40 CFR 60 Subpart MMMM. Therefore, the requirements



of 6 NYCRR Part 212 are satisfied for cadmium, lead, sulfur dioxide (SO<sub>2</sub>), NO<sub>x</sub>, carbon monoxide (CO), dioxans/furans (PCDD/PCDF), hydrogen chloride (HCl) and particulate (PM) emissions. Compliance with 6 NYCRR Part 212 requirements has not been demonstrated for mercury emissions, since it is also regulated under a NESHAP, and is a high toxicity air contaminant with actual annual mass emissions that exceed the annual mass emission limit for mercury specified in Table 2 of 6NYCRR212-2. In addition, mercury has an applicable persistent and bioaccumulative (PB) trigger. Beryllium is also regulated under a NESHAP and is a high toxicity air contaminant. Compliance with 6 NYCRR Part 212 is demonstrated by compliance with the annual mass emission limit for beryllium specified in Table 2 of 6NYCRR 212-2. Compliance with 6 NYCRR Part 212 requirements for emissions from INC 1 and INC 3 has not been demonstrated. Operation of these incinerators ceased on March 21, 2016, until compliance with 40 CFR 60 Subpart MMMM requirements is demonstrated. The boilers are subject to federally enforceable state regulations for the emission of NO<sub>X</sub> under 6NYCRR Part 227-2.

The incinerators are also subject to the requirements of 40 CFR Part 503, Subpart E for the incineration of sewage sludge. This rule was enacted under the authority of sections 405 (d) and (e) of the Clean Water Act and has not been delegated to this State for enforcement. BSA was required to install a continuous total hydrocarbon (THC) analyzer in the Main Stack to verify compliance with the THC emission limit of 100 ppm specified under 40CFR503, Subpart E. Instruments that measure and record stack oxygen content, moisture content and temperature are required. The 503 regulation also required stack testing to determine the impact of heavy metal emissions, air dispersion modeling to determine pollutant limits, the establishment of operating parameters, and bimonthly sampling of sludge feed for metals including cadmium, lead, nickel, chromium and arsenic to verify compliance with the pollutant limits. Beryllium and mercury emissions are regulated under 40 CFR Part 503, Subpart E by compliance with 40 CFR Part 61, Subpart C and Subpart E, respectively. All 40 CFR Part 503 requirements, including operating limits based on performance test data, are contained in the DEC Permit portion of BSA's title V permit.

The monitoring plans required under 40CFR60 Subpart MMMM for the incinerators and ash handling system and associated control equipment and the standard operating plan for the operation and maintenance of the multiple hearth incinerators and wet scrubbers referenced in this permit are attachments that are part of the title V permit. These items are maintained at the facility and at the Region 9 office for reference.

BSA operates emission sources at Bird Island STP, that are exempt from permitting in accordance with 6NYCRR201-3.2, including four small combustion installations (maximum heat input < 10 mmBTU/hr), two gasoline dispensing sites (annual throughput < 120,000 gal/year), two storage silos (each equipped with a baghouse for particulate control), four laboratory exhausts, and three solvent transfer/filling/sampling/storage room exhausts. These sources emit VOCs, particulates (PM)/PM-10, CO, NO<sub>X</sub>, HAPs and other contaminants to the ambient air. To qualify for exempt status, BSA must be able to demonstrate that they operate and maintain these sources in accordance with 6NYCRR201-3.1, 6NYCRR201-3.2 and all other applicable requirements. Records must be maintained onsite for a minimum of 5 years. Trivial sources and/or activities at BSA described under §201-3.1 and §201-3.3 have similar requirements.



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

Permit Administrator: DAVID S DENK

DIVISION OF ENVIRONMENTAL PERMITS

270 MICHIGAN AVE BUFFALO, NY 14203-2915

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



### **Notification of Other State Permittee Obligations**

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

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

Item B: Permittee's Contractors to Comply with Permit

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

Item C: Permittee Responsible for Obtaining Other Required Permits

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

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

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



#### LIST OF CONDITIONS

### DEC GENERAL CONDITIONS

### **General Provisions**

Facility Inspection by the Department Relationship of this Permit to Other Department Orders and Determinations

Applications for permit renewals, modifications and transfers

Permit modifications, suspensions or revocations by the Department

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### DEC SPECIAL CONDITIONS

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Incineration of Sewage Sludge
Pollutant Limits for the Incineration of Sewage Sludge
Total Hydrocarbon Continuous Emission Monitor Requirement
Management practices for the Incineration of Sewage Sludge.
Frequency of monitoring for arsenic, cadmium, chromium, lead and
nickel in sewage- sludge
Reporting and Recordkeeping Requirements



Facility DEC ID: 9140200154

### **DEC GENERAL CONDITIONS**

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

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

GENERAL CONDITIONS - Apply to ALL Authorized Permits.

Condition 1: Facility Inspection by the Department
Applicable State Requirement: ECL 19-0305

#### Item 1.1:

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

#### Item 1.2:

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

### Item 1.3:

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

# Condition 2: Relationship of this Permit to Other Department Orders and Determinations Applicable State Requirement: ECL 3-0301 (2) (m)

### Item 2.1:

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

## Condition 3: Applications for permit renewals, modifications and transfers Applicable State Requirement: 6 NYCRR 621.11

### Item 3.1:

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

### Item 3.3:

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

Condition 4: Permit modifications, suspensions or revocations by the Department Applicable State Requirement: 6 NYCRR 621.13

Item 4.1:

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

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

the permitted activity.

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

Condition 5: Submission of application for permit modification or renewal-REGION 9
HEADQUARTERS
Applicable State Requirement: 6 NYCRR 621.6 (a)

### Item 5.1:

Submission of applications for permit modification or renewal are to be submitted to:

NYSDEC Regional Permit Administrator Region 9 Headquarters Division of Environmental Permits 270 Michigan Avenue Buffalo, NY 14203-2915

(716)85



#### DEC SPECIAL CONDITIONS

1-7165

**Condition 6: General Provisions** 

Applicable State Requirement: 40 CFR Part 503, Subpart A

#### Item 6.1:

40CFR503 establishes standards, which consist of general requirements, pollutant limits, management practices, and operational standards for the final use or disposal of sewage sludge generated during the treatment of domestic sewage in a treatment works. Subpart A specifies the general provisions for 40CFR503. BSA is responsible for complying with all sections contained in this Subpart that apply to the incineration of sewage sludge, including collecting representative sewage sludge samples, analyzing the samples using an approved method for inorganic pollutants (EPA Method SW-846) and total solids (SM2540), and reviewing the general definitions. In accordance with §503.5, on a case-by-case basis, the permitting authority may impose requirements for the use or disposal of sewage sludge in addition to or more stringent than the requirements in this part when necessary to protect public health and the environment from any adverse effect of a pollutant in the sewage sludge. Nothing in this part precludes a State or political subdivision thereof or interstate agency from imposing requirements for the use or disposal of sewage sludge more stringent than the requirements in this part or from imposing additional requirements for the use or disposal of sewage sludge.

Condition 7: Incineration of Sewage Sludge
Applicable State Requirement: 40 C

40 CFR Part 503, Subpart E

### Item 7.1:

This subpart applies to a person who fires sewage sludge in a sewage sludge incinerator, to a sewage sludge incinerator, to sewage sludge fired in a sewage sludge incinerator and to the exit gas from a sewage sludge incinerator stack. No person shall fire sewage sludge in a sewage sludge incinerator except in compliance with the requirements in this subpart. BSA is responsible for complying with all requirements specified in this part, including pollutant limits for seven metals, air dispersion modeling, biosolids sampling and analysis, performance testing, operational standard/limit for hydrocarbons, management practices, monitoring requirements, frequency of monitoring, recordkeeping and reporting. Special definitions are also specified in this subpart. The pollutants regulated under 40CFR503 are lead (CAS No. 007439-92-1), mercury (CAS No. 007439-97-6), nickel (CAS No. 007440-02-0), beryllium (CAS No. 007440-41-7), cadmium (CAS No. 007440-43-9), chromium (CAS No. 007440-47-3), arsenic (CAS No. 007440-38-2), and volatile organic compounds (CAS No. 0NY998-00-0).

Condition 8: Pollutant Limits for the Incineration of Sewage Sludge
Applicable State Requirement: 40 CFR 503.43

### Item 8.1:

- (a) Firing of sewage sludge in a sewage sludge incinerator shall not violate the requirements in the National Emission Standard for Beryllium in subpart C of 40 CFR part 61.
- (b) Firing of sewage sludge in a sewage sludge incinerator shall not violate the requirements in the National Emission Standard for Mercury in subpart E of 40 CFR part 61.

- (c) Pollutant limit—lead.
- (1) The average daily concentration for lead in sewage sludge fed to a sewage sludge incinerator shall not exceed the concentration calculated using Equation (4).

C = [0.1 x NAAQS x 86,400] / [DF x (1-CE) x SF] Eq. (4)

#### Where:

C = Average daily concentration of lead in sewage sludge.

NAAQS = current National Ambient Air Quality Standard for lead in micrograms per cubic meter = 0.15 ug/m3 (eff. 1/12/2009)

DF = Dispersion factor in micrograms per cubic meter per gram per second.

CE = Sewage sludge incinerator control efficiency for lead in hundredths.

SF = Sewage sludge feed rate in metric tons per day (dry weight basis).

- (d) Pollutant limit—arsenic, cadmium, chromium, and nickel.
- (1) The average daily concentration for arsenic, cadmium, chromium, and nickel in sewage sludge fed to a sewage sludge incinerator each shall not exceed the concentration calculated using equation (5).

 $C = [RSC \times 86,400] / [DF \times (1-CE) \times SF]$  Eq. (5)

### Where:

 $C = Average \ daily \ concentration \ of \ arsenic, \ cadmium, \ chromium, \ or \ nickel \ in \ sewage \ sludge.$ 

CE = Sewage sludge incinerator control efficiency for arsenic,cadmium, chromium, or nickel in hundredths.

DF = Dispersion factor in micrograms per cubic meter per gram per second.

RSC = Risk specific concentration for arsenic, cadmium, chromium, or nickel in micrograms per cubic meter.

SF = Sewage sludge feed rate in metric tons per day (dry weight basis).

- (2) The risk specific concentrations for arsenic (0.023), cadmium (0.057), and nickel (2.0) used in equation (5) are obtained from Table 1 of §503.43.
- (3) The risk specific concentration for chromium used in equation (5) shall be obtained from Table 2 of §503.43 (Other types with wet scrubber: 0.064) or calculated using equation (6).

RSC = 0.0085/r Eq. (6)

### Where:

RSC = risk specific concentration for chromium in micrograms per cubic meter used in equation (5).

r = decimal fraction of the hexavalent chromium concentration in the total chromium concentration measured in the exit gas from the sewage sludge incinerator stack in hundredths.

The dispersion factor (DF) in equations (4) and (5) shall be determined from an air dispersion model in accordance with §503.43(e). The air dispersion model used to determine the dispersion factor shall be appropriate for the geographical, physical, and population characteristics at the sewage sludge incinerator site and must consider site conditions, including building effects. The dispersion factor shall be determined using the most current USEPA/NYSDEC approved screening/refined dispersion model and shall be updated accordingly. In accordance with

§503.43(c)(2) and §503.43(d)(4), since the sewage sludge incinerator stack height at BSA is equal to or less than 65 meters (213 feet), the actual sewage sludge incinerator stack height shall be used in the air dispersion model to determine the dispersion factor. For air dispersion modeling initiated after September 3, 1999, the modeling results shall be submitted to the permitting authority 30 days after completion of the modeling. In addition to the modeling results, the submission shall include a description of the air dispersion model and the values used for the model parameters.

The control efficiency (CE) for equations (4) and (5) shall be determined from a performance test of the sewage sludge incinerator. The performance test shall be conducted in accordance with §503.43(e)(3) under representative sewage sludge incinerator conditions at the highest expected sewage sludge feed rate within the design capacity of the sewage sludge incinerator.

The pollutant limits in §503.43 (c) and (d) of this section shall be submitted to the permitting authority no later than 30 days after completion of the air dispersion modeling and performance test. Significant changes in geographic or physical characteristics at the incinerator site or in incinerator operating conditions require new air dispersion modeling or performance testing to determine a new dispersion factor or a new control efficiency that will be used to calculate revised pollutant limits.

Note: Average daily concentration, dispersion factor, control efficiency and sewage sludge feed rate are defined in 40CFR503.41.

### Condition 9: Total Hydrocarbon Continuous Emission Monitor Requirement Applicable State Requirement: 40 CFR 503.44

### Item 9.1:

(a) The total hydrocarbons concentration in the exit gas from a sewage sludge incinerator shall be corrected for zero percent moisture by multiplying the measured total hydrocarbons concentration by the correction factor calculated using equation (7).

Correction factor (percent moisture) = 1/(1 X) Eq. (7)

### Where:

X=decimal fraction of the percent moisture in the sewage sludge incinerator exit gas in hundredths.

(b) The total hydrocarbons concentration in the exit gas from a sewage sludge incinerator shall be corrected to seven percent oxygen by multiplying the measured total hydrocarbons concentration by the correction factor calculated using equation (8).

Correction factor (oxygen) = 14/(21 - Y) Eq. (8)

### Where:

Y=Percent oxygen concentration in the sewage sludge incinerator stack exit gas (dry volume/dry volume).

(c) The monthly average concentration for total hydrocarbons in the exit gas from a sewage sludge incinerator stack, corrected for zero percent moisture using the correction factor from equation (7) and to seven percent oxygen using the correction factor from equation (8), shall not



exceed 100 parts per million on a volumetric basis when measured using the instrument required by \$503.45(a).

Condition 10: Management practices for the Incineration of Sewage Sludge.

Applicable State Requirement: 40 CFR 503.45

#### Item 10.1:

- (a)(1) An instrument that continuously measures and records the total hydrocarbons concentration in the sewage sludge incinerator stack exit gas shall be installed, calibrated, operated, and maintained for a sewage sludge incinerator.
- (2) The total hydrocarbons instrument shall employ a flame ionization detector; shall have a heated sampling line maintained at a temperature of 150 degrees C or higher at all times; and shall be calibrated at least once every 24-hour operating period using propane.
- (b) An instrument that continuously measures and records the oxygen concentration in the sewage sludge incinerator stack exit gas shall be installed, calibrated, operated, and maintained for a sewage sludge incinerator.
- (c) An instrument that continuously measures and records information used to determine the moisture content in the sewage sludge incinerator stack exit gas shall be installed, calibrated, operated, and maintained for a sewage sludge incinerator.
- (d) An instrument that continuously measures and records combustion temperatures shall be installed, calibrated, operated, and maintained for a sewage sludge incinerator.
- (e) Operation of a sewage sludge incinerator shall not cause the operating combustion temperature for the sewage sludge incinerator to exceed the performance test combustion temperature by more than 20 percent. Performance test combustion temperature is the arithmetic mean of the average combustion temperature in the hottest zone of the furnace for each of the runs in a performance test.
- (f) An air pollution control device shall be appropriate for the type of sewage sludge incinerator and the operating parameters for the air pollution control device shall be adequate to indicate proper performance of the air pollution control device. For sewage sludge incinerators subject to the requirements in Subpart O of 40 CFR Part 60 and 40CFR60, Subpart MMMM, operation of the air pollution control device shall not violate the requirements for the air pollution control device in Subpart O of 40 CFR Part 60 or 40CFR60, Subpart MMMM. For all other sewage sludge incinerators, operation of the air pollution control device shall not cause a significant exceedance of the average value for the air pollution control device operating parameters from the performance test required by \$503.43 (c)(3) and (d)(5).
- (g) Sewage sludge shall not be fired in a sewage sludge incinerator if it is likely to adversely affect a threatened or endangered species listed under section 4 of the Endangered Species Act or its designated critical habitat.
- (h) The instruments required in §503.45(a)-(d) shall be appropriate for the type of sewage sludge incinerator.

BSA conducted the latest performance test on Emission Source 0000E (INC 2) on June 17, 2014 to determine compliance with 40CFR503 Subpart E requirements. The performance test combustion temperature for INC 2 was 1508 deg Fahrenheit, determined at Hearth #7 at a maximum sewage sludge feedrate of 2.58 dry tons per day. In accordance with the requirements specified in this monitoring condition the incinerator operating combustion temperature for INC 2 shall not exceed the upper limit of 1810 degrees Fahrenheit (performance test combustion temperature, plus 20%). Incinerator operating combustion temperature is the arithmetic mean of the temperature readings in the hottest zone of the furnace recorded in a day (24 hours) when the temperature is averaged and recorded at least hourly during the hours the incinerator operates in

a day.

BSA operates a continuous emissions monitoring system (CEMS) for total hydrocarbons as specified above to verify compliance with the 100 ppmvd limit. The CEMS continuously monitors oxygen content and moisture in the stack, to determine the percent dry oxygen in the stack.

Condition 11: Frequency of monitoring for arsenic, cadmium, chromium, lead and nickel in

sewage- sludge

Applicable State Requirement: 40 CFR 503.46

### Item 11.1:

- (a)Sewage sludge:
- (1) The frequency of monitoring for beryllium shall be as required in subpart C of 40 CFR part 61, and for mercury as required in subpart E of 40 CFR part 61.
- (2) The frequency of monitoring for arsenic, cadmium, chromium, lead, and nickel in sewage sludge fed to a sewage sludge incinerator shall be the frequency in Table 1 of §503.46.
- (b) Total hydrocarbons, oxygen concentration, information to determine moisture content, and combustion temperatures: The total hydrocarbons concentration and oxygen concentration in the exit gas from a sewage sludge incinerator stack, the information used to measure moisture content in the exit gas, and the combustion temperatures for the sewage sludge incinerator shall be monitored continuously.
- (c) Air pollution control device operating parameters: For sewage sludge incinerators subject to the requirements in subpart O of 40 CFR part 60 and 40CFR60 Subpart MMMM, the frequency of monitoring for the appropriate air pollution control device operating parameters shall be the frequency of monitoring in subpart O of 40 CFR part 60 or 40CFR60 Subpart MMMM, whichever is more stringent. For all other sewage sludge incinerators, the appropriate air pollution control device operating parameters shall be at least daily.

Condition 12: Reporting and Recordkeeping Requirements
Applicable State Requirement: 40 CFR 503.48

### Item 12.1:

Recordkeeping

- (a) The person who fires sewage sludge in a sewage sludge incinerator shall develop the information in §503.47(b) through §503.47(n) and shall retain that information for five years.
- (b) The concentration of lead, arsenic, cadmium, chromium, and nickel in the sewage sludge fed to the incinerator.
- (c) The total hydrocarbons concentrations in the exit gas from the sewage sludge incinerator stack.
- (d) Information that indicates the requirements in the National Emission Standard for beryllium in Subpart C of 40 CFR Part 61 are met.
- (e) Information that indicates the requirements in the National Emission Standards for mercury in Subpart E of 40 CFR Part 61 are met.
- (f) The operating combustion temperatures for the sewage sludge incinerator.
- (g) Values for the air pollution control device operating parameters.

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- (h) The oxygen concentration and information used to measure moisture content in the exit gas from the sewage sludge incinerator stack.
- (i) The sewage sludge feed rate.
- (j) The stack height for the sewage sludge incinerator.
- (k) The dispersion factor for the site where the sewage sludge incinerator is located.
- (l) The control efficiency for lead, arsenic, cadmium, chromium, and nickel for each sewage sludge incinerator.
- (m) The risk specific concentration for chromium calculated using equation (6), if applicable.
- (n) A calibration and maintenance log for the instruments used to measure the total hydrocarbons concentration and oxygen concentration in the exit gas from the sewage sludge incinerator stack, the information needed to determine moisture content in in the exit gas, and the combustion temperatures.

### Reporting.

Class 1 sludge management facilities, POTWs (as defined in 40 CFR 501.2) with a design flow rate equal to or greater than one million gallons per day, and POTWs that serve a population of 10,000 people of greater shall submit the information to the USEPA and the Regional NYSDEC office by February 19 of each year.



Permit ID: 9-1402-00154/00007 Facility DEC ID: 9140200154

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

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

### **IDENTIFICATION INFORMATION**

Permit Issued To:BUFFALO SEWER AUTHORITY 1038 CITY HALL BUFFALO, NY 14202-3310

Facility: BIRD ISLAND STP

90 W FERRY ST

BUFFALO, NY 14213-7999

Authorized Activity By Standard Industrial Classification Code: 4952 - SEWERAGE SYSTEMS

Permit Effective Date: 09/09/2016 Permit Expiration Date: 09/08/2021



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#### LIST OF CONDITIONS

# FEDERALLY ENFORCEABLE CONDITIONS Facility Level

- 1 6 NYCRR 200.6: Acceptable Ambient Air Quality
- 2 6 NYCRR 201-6.4 (a) (7): Fees
- 3 6 NYCRR 201-6.4 (c): Recordkeeping and Reporting of Compliance Monitoring
- 4 6 NYCRR 201-6.4 (c) (2): Records of Monitoring, Sampling, and Measurement
- 5 6 NYCRR 201-6.4 (c) (3) (ii): Compliance Certification
- 6 6 NYCRR 201-6.4 (e): Compliance Certification
- 7 6 NYCRR 202-2.1: Compliance Certification
- 8 6 NYCRR 202-2.5: Recordkeeping requirements
- 9 6 NYCRR 215.2: Open Fires Prohibitions
- 10 6 NYCRR 200.7: Maintenance of Equipment
- 11 6 NYCRR 201-1.7: Recycling and Salvage
- 12 6 NYCRR 201-1.8: Prohibition of Reintroduction of Collected Contaminants to the air
- 13 6 NYCRR 201-3.2 (a): Exempt Sources Proof of Eligibility
- 14 6 NYCRR 201-3.3 (a): Trivial Sources Proof of Eligibility
- 15 6 NYCRR 201-6.4 (a) (4): Requirement to Provide Information
- 16 6 NYCRR 201-6.4 (a) (8): Right to Inspect
- 17 6 NYCRR 201-6.4 (f) (6): Off Permit Changes
- 18 40 CFR Part 68: Accidental release provisions.
- 19 40CFR 82, Subpart F: Recycling and Emissions Reduction
- 20 6 NYCRR 200.7: Compliance Certification
- 21 6 NYCRR Subpart 201-3: Compliance Certification
- 22 6 NYCRR Subpart 201-6: Emission Unit Definition
- 23 6 NYCRR 201-6.4 (d) (4): Progress Reports Due Semiannually
- 24 6 NYCRR 202-1.1: Required Emissions Tests Facility Level
- 25 6 NYCRR 211.1: Air pollution prohibited
- 26 6 NYCRR 212-1.5 (e) (1): Compliance Certification
- 27 6 NYCRR 212-1.5 (e) (2): Compliance Certification
- 28 6 NYCRR 212-3.1 (c) (4) (i): Compliance Certification
- 29 40CFR 60, NSPS Subpart A: Applicability of Subpart A General Provisions
- 30 40CFR 60.8, NSPS Subpart A: Compliance Certification
- 31 40CFR 60.12, NSPS Subpart A: Circumvention.
- 32 40CFR 60.13, NSPS Subpart A: Compliance Certification
- 33 40CFR 60.153(a)(2), NSPS Subpart O: Access to sludge charged for sampling
- 34 40CFR 60, Subpart MMMM: Compliance Certification
- 35 40CFR 60.5130, Subpart MMMM: Compliance Certification
- 36 40CFR 60.5135, Subpart MMMM: Compliance Certification
- 37 40CFR 60.5145, Subpart MMMM: Compliance Certification
- 38 40CFR 60.5150, Subpart MMMM: Compliance Certification
- 39 40CFR 60.5155, Subpart MMMM: Compliance Certification
- 40 40CFR 60.5160, Subpart MMMM: Compliance Certification 41 40CFR 60.5165, Subpart MMMM: Compliance Certification
- 42 40CFR 60.5165, Subpart MMMM: Compliance Certification



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- 43 40CFR 60.5165, Subpart MMMM: Compliance Certification
- 44 40CFR 60.5165, Subpart MMMM: Compliance Certification
- 45 40CFR 60.5165, Subpart MMMM: Compliance Certification
- 46 40CFR 60.5165, Subpart MMMM: Compliance Certification
- 47 40CFR 60.5165, Subpart MMMM: Compliance Certification
- 48 40CFR 60.5165, Subpart MMMM: Compliance Certification
- 49 40CFR 60.5165, Subpart MMMM: Compliance Certification
- 50 40CFR 60.5165, Subpart MMMM: Compliance Certification
- 51 40CFR 60.5165, Subpart MMMM: Compliance Certification
- 52 40CFR 60.5170, Subpart MMMM: Compliance Certification
- 53 40CFR 60.5170(f), NSPS Subpart MMMM: Compliance Certification
- 54 40CFR 60.5170(f), NSPS Subpart MMMM: Compliance Certification
- 55 40CFR 60.5175, Subpart MMMM: Compliance Certification
- 56 40CFR 60.5180, Subpart MMMM: Compliance Certification
- 57 40CFR 60.5185, Subpart MMMM: Compliance Certification
- 58 40CFR 60.5190, Subpart MMMM: Compliance Certification
- 59 40CFR 60.5190, Subpart MMMM: Compliance Certification
- 60 40CFR 60.5190(b), NSPS Subpart MMMM: Compliance Certification
- 61 40CFR 60.5190(c), NSPS Subpart MMMM: Compliance Certification
- 62 40CFR 60.5190(d), NSPS Subpart MMMM: Compliance Certification
- 63 40CFR 60.5190(e), NSPS Subpart MMMM: Compliance Certification
- 64 40CFR 60.5195, Subpart MMMM: Compliance Certification
- 65 40CFR 60.5200, Subpart MMMM: Compliance Certification
- 66 40CFR 60.5205, Subpart MMMM: Compliance Certification
- 67 40CFR 60.5205(a)(3), Subpart MMMM: Compliance Certification
- 68 40CFR 60.5210, Subpart MMMM: Compliance Certification
- 69 40CFR 60.5215, Subpart MMMM: Compliance Certification
- 70 40CFR 60.5220, Subpart MMMM: Compliance Certification
- 71 40CFR 60.5225, Subpart MMMM: Compliance Certification
- 72 40CFR 60.5230, Subpart MMMM: Compliance Certification
- 73 40CFR 60.5230, Subpart MMMM: Compliance Certification
- 74 40CFR 60.5235, Subpart MMMM: Compliance Certification
- 75 40CFR 60.5235(b), NSPS Subpart MMMM: Compliance Certification
- 76 40CFR 60.5235(c), NSPS Subpart MMMM: Compliance Certification
- 77 40CFR 60.5235(d), NSPS Subpart MMMM: Compliance Certification
- 78 40CFR 61, NESHAP Subpart A: Applicability of General Provisions of 40 CFR 61 Subpart A
- 79 40CFR 61, NESHAP Subpart C: Compliance Certification
- 80 40CFR 61.32(a), NESHAP Subpart C: Compliance Certification
- 81 40CFR 61, NESHAP Subpart E: Compliance Certification
- 82 40CFR 61.52(b), NESHAP Subpart E: Compliance Certification
- 83 40 CFR Part 64: Compliance Certification

### **Emission Unit Level**

- 84 6 NYCRR Subpart 201-6: Emission Point Definition By Emission Unit
- 85 6 NYCRR Subpart 201-6: Process Definition By Emission Unit
- 86 6 NYCRR 212-1.6 (a): Compliance Certification

### EU=U-00002,Proc=BOI

87 6 NYCRR 227-2.4 (c) (1) (ii): Compliance Certification

### EU=U-00002,Proc=INC

88 40CFR 60, NSPS Subpart O: Compliance Certification



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- 89 40CFR 60.152(a)(1), NSPS Subpart O: Compliance Certification
- 90 40CFR 60.152(a)(2), NSPS Subpart O: Compliance Certification
- 91 40CFR 60.153(a)(1), NSPS Subpart O: Compliance Certification
- 92 40CFR 60.153(b)(1), NSPS Subpart O: Compliance Certification
- 93 40CFR 60.153(b)(2), NSPS Subpart O: Compliance Certification
- 94 40CFR 60.153(b)(3), NSPS Subpart O: Compliance Certification
- 95 40CFR 60.153(b)(4), NSPS Subpart O: Compliance Certification
- 96 40CFR 60.155(a)(1)(ii), NSPS Subpart O: Compliance Certification

### EU=U-00003,Proc=SDI

97 6 NYCRR 227-2.4 (g): Compliance Certification

# STATE ONLY ENFORCEABLE CONDITIONS Facility Level

- 98 ECL 19-0301: Contaminant List
- 99 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities
- 100 6 NYCRR 212-2.1: Compliance Demonstration
- 101 6 NYCRR 212-2.1 (a): Compliance Demonstration
- 102 6 NYCRR 212-2.1 (a): Compliance Demonstration
- 103 6 NYCRR 212-2.2: Compliance Demonstration
- 104 6 NYCRR 212-2.2: Compliance Demonstration
- 105 6 NYCRR 212-2.2: Compliance Demonstration106 6 NYCRR 212-2.2: Compliance Demonstration



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## FEDERALLY ENFORCEABLE CONDITIONS \*\*\*\* Facility Level \*\*\*\*

### NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

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

### Item A: 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 B: Timely Application for the Renewal of Title V Permits - 6 NYCRR 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 C: Certification by a Responsible Official - 6 NYCRR 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 D: Requirement to Comply With All Conditions - 6 NYCRR 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 E: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR 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

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reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

### Item F: 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 G: 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 H: Severability - 6 NYCRR 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 I: Permit Shield - 6 NYCRR 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 J: Reopening for Cause - 6 NYCRR 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 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



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a shorter time period in the case of an emergency.

### Item K: 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 L: 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.

## MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS SUBJECT TO ANNUAL CERTIFICATIONS AT ALL TIMES

The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements at all times.

**Condition 1:** Acceptable Ambient Air Quality

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 6 NYCRR 200.6

### Item 1.1:

Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of



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emission control required.

**Condition 2:** Fees

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:6 NYCRR 201-6.4 (a) (7)

#### Item 2.1:

The owner and/or operator of a stationary source shall pay fees to the Department consistent with the fee schedule authorized by ECL 72-0303.

**Condition 3:** Recordkeeping and Reporting of Compliance Monitoring

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:6 NYCRR 201-6.4 (c)

#### Item 3.1:

The following information must be included in any required compliance monitoring records and reports:

- (i) The date, place, and time of sampling or measurements;
- (ii) The date(s) analyses were performed;
- (iii)The company or entity that performed the analyses;
- (iv) The analytical techniques or methods used including quality assurance and quality control procedures if required;
- (v) The results of such analyses including quality assurance data where required; and
- (vi) The operating conditions as existing at the time of sampling or measurement.

Any deviation from permit requirements must be clearly identified in all records and reports. Reports must be certified by a responsible official, consistent with Section 201-6.2 of Part 201.

Condition 4: Records of Monitoring, Sampling, and Measurement

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 6 NYCRR 201-6.4 (c) (2)

### Item 4.1:

Compliance monitoring and recordkeeping shall be conducted according to the terms and conditions contained in this permit and shall follow all quality assurance requirements found in applicable regulations. Records of all monitoring data and support information must be retained for a period of at least 5 years from the date of the monitoring, sampling, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.



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**Condition 5:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:6 NYCRR 201-6.4 (c) (3) (ii)

### Item 5.1:

The Compliance Certification activity will be performed for the Facility.

#### Item 5.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

To meet the requirements of this facility permit with respect to reporting, the permittee must:

Submit reports of any required monitoring at a minimum frequency of every 6 months, based on a calendar year reporting schedule. These reports shall be submitted to the Department within 30 days after the end of a reporting period. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by the responsible official for this facility.

Notify the Department and report permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations shall be submitted to the permitting authority based on the following schedule:

- (1) For emissions of a hazardous air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
- (2) For emissions of any regulated air pollutant, excluding those listed in paragraph (1) of this section, that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
- (3) For all other deviations from permit requirements, the report shall be contained in the 6 month monitoring



report required above.

(4) This permit may contain a more stringent reporting requirement than required by paragraphs (1), (2) or (3) above. If more stringent reporting requirements have been placed in this permit or exist in applicable requirements that apply to this facility, the more stringent reporting requirement shall apply.

If above paragraphs (1) or (2) are met, the source must notify the permitting authority by telephone during normal business hours at the Regional Office of jurisdiction for this permit, attention Regional Air Pollution Control Engineer (RAPCE) according to the timetable listed in paragraphs (1) and (2) of this section. For deviations and incidences that must be reported outside of normal business hours, on weekends, or holidays, the DEC Spill Hotline phone number at 1-800-457-7362 shall be used. A written notice, certified by a responsible official consistent with 6 NYCRR Part 201-6.2(d)(12), must be submitted within 10 working days of an occurrence for deviations reported under (1) and (2). All deviations reported under paragraphs (1) and (2) of this section must also be identified in the 6 month monitoring report required above.

The provisions of 6 NYCRR 201-1.4 shall apply if the permittee seeks to have a violation excused unless otherwise limited by regulation. In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets.

Notwithstanding any recordkeeping and reporting requirements in 6 NYCRR 201-1.4, reports of any deviations shall not be on a less frequent basis than the reporting periods described in paragraphs (1) and (4) above.

In the case of any condition contained in this permit with a reporting requirement of "Upon request by regulatory agency" the permittee shall include in the semiannual report, a statement for each such condition that the monitoring or recordkeeping was performed as required or requested and a listing of all instances of deviations from these requirements.

In the case of any emission testing performed during the previous six month reporting period, either due to a request by the Department, EPA, or a regulatory requirement, the permittee shall include in the semiannual report a summary of the testing results and shall indicate



whether or not the Department or EPA has approved the results.

All semiannual reports may be submitted electronically or physically. Electronic reports shall be submitted using the Department's Air Compliance and Emissions Electronic-Reporting system (ACE). If the facility owner or operator elects to send physical copies instead, two copies shall be sent to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office) and one copy shall be sent to the Administrator (or his or her representative). Mailing addresses for the above referenced persons are contained in the monitoring condition for 6 NYCRR Part 201-6.4(e), contained elsewhere in this permit.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 1/30/2017. Subsequent reports are due every 6 calendar month(s).

**Condition 6: Compliance Certification** 

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 6 NYCRR 201-6.4 (e)

#### Item 6.1:

The Compliance Certification activity will be performed for the Facility.

#### Item 6.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

Requirements for compliance certifications with terms and conditions contained in this facility permit include the following:

- i. Compliance certifications shall contain:
- the identification of each term or condition of the permit that is the basis of the certification;
- the compliance status;
- whether compliance was continuous or intermittent;
- the method(s) used for determining the compliance status of the facility, currently and over the reporting period consistent with the monitoring and related recordkeeping and reporting requirements of this permit;
- such other facts as the Department may require to determine the compliance status of the facility as specified in any special permit terms or conditions;



and

- such additional requirements as may be specified elsewhere in this permit related to compliance certification.
- ii. The responsible official must include in the annual certification report all terms and conditions contained in this permit which are identified as being subject to certification, including emission limitations, standards, or work practices. That is, the provisions labeled herein as "Compliance Certification" are not the only provisions of this permit for which an annual certification is required.
- iii. Compliance certifications shall be submitted annually. Certification reports are due 30 days after the anniversary date of four consecutive calendar quarters. The first report is due 30 days after the calendar quarter that occurs just prior to the permit anniversary date, unless another quarter has been acceptable by the Department.
- iv. All annual compliance certifications may be submitted electronically or physically. Electronic reports shall be submitted using the Department's Air Compliance and Emissions Electronic-Reporting system (ACE). If the facility owner or operator elects to send physical copies instead, two copies shall be sent to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office) and one copy shall be sent to the Administrator (or his or her representative). The mailing addresses for the above referenced persons are:

Chief – Stationary Source Compliance Section USEPA Region 2 Air Compliance Branch 290 Broadway New York, NY 10007-1866

The address for the RAPCE is as follows:

Regional Air Pollution Control Engineer NYSDEC Region 9 Headquarters 270 Michigan Avenue Buffalo, NY 14203-2915

The address for the BQA is as follows:

NYSDEC Bureau of Quality Assurance



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625 Broadway Albany, NY 12233-3258

Monitoring Frequency: ANNUALLY Reporting Requirements: ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 1/30/2017. Subsequent reports are due on the same day each year

**Condition 7: Compliance Certification** 

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 6 NYCRR 202-2.1

### Item 7.1:

The Compliance Certification activity will be performed for the Facility.

#### Item 7.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Emission statements shall be submitted on or before April 15th each year for emissions of the previous calendar year.

Monitoring Frequency: ANNUALLY

Reporting Requirements: ANNUALLY (CALENDAR) Reports due by April 15th for previous calendar year

**Condition 8:** Recordkeeping requirements

Effective between the dates of 09/09/2016 and 09/08/2021

**Applicable Federal Requirement: 6 NYCRR 202-2.5** 

### Item 8.1:

- (a) The following records shall be maintained for at least five years:
  - (1) a copy of each emission statement submitted to the department; and
- (2) records indicating how the information submitted in the emission statement was determined, including any calculations, data, measurements, and estimates used.
- (b) These records shall be made available at the facility to the representatives of the department upon request during normal business hours.

**Condition 9:** Open Fires - Prohibitions

Effective between the dates of 09/09/2016 and 09/08/2021

**Applicable Federal Requirement: 6 NYCRR 215.2** 

Item 9.1:



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

#### **Item 9.2**

Per Section 215.3, burning in an open fire, provided it is not contrary to other law or regulation, will be allowed as follows:

- (a) On-site burning in any town with a total population less than 20,000 of downed limbs and branches (including branches with attached leaves or needles) less than six inches in diameter and eight feet in length between May 15th and the following March 15th. For the purposes of this subdivision, the total population of a town shall include the population of any village or portion thereof located within the town. However, this subdivision shall not be construed to allow burning within any village.
- (b) Barbecue grills, maple sugar arches and similar outdoor cooking devices when actually used for cooking or processing food.
- (c) Small fires used for cooking and camp fires provided that only charcoal or untreated wood is used as fuel and the fire is not left unattended until extinguished.
- (d) On-site burning of agricultural wastes as part of a valid agricultural operation on contiguous agricultural lands larger than five acres actively devoted to agricultural or horticultural use, provided such waste is actually grown or generated on those lands and such waste is capable of being fully burned within a 24-hour period.
- (e) The use of liquid petroleum fueled smudge pots to prevent frost damage to crops.
- (f) Ceremonial or celebratory bonfires where not otherwise prohibited by law, provided that only untreated wood or other agricultural products are used as fuel and the fire is not left unattended until extinguished.
- (g) Small fires that are used to dispose of a flag or religious item, and small fires or other smoke producing process where not otherwise prohibited by law that are used in connection with a religious ceremony.
- (h) Burning on an emergency basis of explosive or other dangerous or contraband materials by police or other public safety organization.
- (i) Prescribed burns performed according to Part 194 of this Title.
- (j) Fire training, including firefighting, fire rescue, and fire/arson investigation training, performed under applicable rules and guidelines of the New York State Department of State's Office of Fire Prevention and Control. For fire training performed on acquired structures, the structures must be emptied and stripped of any material that is toxic, hazardous or likely to emit toxic smoke (such as asbestos, asphalt shingles and vinyl siding or other vinyl products) prior to burning and must be at least 300 feet from other occupied structures. No more than one structure per lot or within a 300 foot radius (whichever is bigger) may be burned in a training exercise.
- (k) Individual open fires as approved by the Director of the Division of Air Resources as may be required in response to an outbreak of a plant or animal disease upon request by the commissioner of the Department of Agriculture and Markets, or for the destruction of invasive plant and insect species.
- (l) Individual open fires that are otherwise authorized under the environmental conservation law, or by rule or regulation of the Department.

## MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS SUBJECT TO ANNUAL CERTIFICATIONS ONLY IF APPLICABLE

The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification



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requirements only if effectuated during the reporting period. [NOTE: The corresponding annual compliance certification for those conditions not effectuated during the reporting period shall be specified as "not applicable".]

**Condition 10:** Maintenance of Equipment

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 6 NYCRR 200.7

#### Item 10.1:

Any person who owns or operates an air contamination source which is equipped with an emission control device shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications, required to operate such device effectively.

Condition 11: Recycling and Salvage

Effective between the dates of 09/09/2016 and 09/08/2021

**Applicable Federal Requirement: 6 NYCRR 201-1.7** 

### Item 11.1:

Where practical, the owner or operator of an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of the ECL.

### Condition 12: Prohibition of Reintroduction of Collected Contaminants to the air

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 6 NYCRR 201-1.8

### Item 12.1:

No person shall unnecessarily remove, handle or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.

Condition 13: Exempt Sources - Proof of Eligibility

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 6 NYCRR 201-3.2 (a)

#### Item 13.1:

The owner or operator of an emission source or activity that is listed as being exempt may be required to certify that it is operated within the specific criteria described in this Subpart. The owner or operator of any such emission source or activity must maintain all records necessary for demonstrating compliance with this Subpart on-site for a period of five years, and make them available to representatives of the department upon request.

Condition 14: Trivial Sources - Proof of Eligibility
Effective between the dates of 09/09/2016 and 09/08/2021



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### Applicable Federal Requirement: 6 NYCRR 201-3.3 (a)

#### Item 14.1:

The owner or operator of an emission source or activity that is listed as being trivial in this Section may be required to certify that it is operated within the specific criteria described in this Subpart. The owner or operator of any such emission source or activity must maintain all required records on-site for a period of five years and make them available to representatives of the department upon request.

**Condition 15:** Requirement to Provide Information

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 6 NYCRR 201-6.4 (a) (4)

#### Item 15.1:

The owner and/or operator shall furnish to the department, within a reasonable time, any information that the department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the department copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the administrator along with a claim of confidentiality, if the administrator initiated the request for information or otherwise has need of it.

Condition 16: Right to Inspect

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 6 NYCRR 201-6.4 (a) (8)

### Item 16.1:

The department or an authorized representative shall be allowed upon presentation of credentials and other documents as may be required by law to:

- (i) enter upon the permittee's premises where a facility subject to the permitting requirements of this Subpart is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
- (ii) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- (iii) inspect at reasonable times any emission sources, equipment (including monitoring and air pollution control equipment), practices, and operations regulated or required under the permit; and
- (iv) sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

**Condition 17: Off Permit Changes** 

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 6 NYCRR 201-6.4 (f) (6)



#### Item 17.1:

No permit revision will be required for operating changes that contravene an express permit term, provided that such changes would not violate applicable requirements as defined under this Part or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting, or compliance certification permit terms and conditions. Such changes may be made without requiring a permit revision, if the changes are not modifications under any provision of title I of the act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions) provided that the facility provides the administrator and the department with written notification as required below in advance of the proposed changes within a minimum of seven days. The facility owner or operator, and the department shall attach each such notice to their copy of the relevant permit.

- (i) For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.
- (ii) The permit shield described in section 6 NYCRR 201-6.4 shall not apply to any change made pursuant to this paragraph.

Condition 18: Accidental release provisions.

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:40 CFR Part 68

### Item 18.1:

If a chemical is listed in Tables 1,2,3 or 4 of 40 CFR §68.130 is present in a process in quantities greater than the threshold quantity listed in Tables 1,2,3 or 4, the following requirements will apply:

- a) The owner or operator shall comply with the provisions of 40 CFR Part 68 and;
- b) The owner or operator shall submit at the time of permit issuance (if not previously submitted) one of the following, if such quantities are present:
- 1) A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR §68.10(a) or,
- 2) A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan. Information should be submitted to:

Risk Management Plan Reporting Center C/O CSC 8400 Corporate Dr Carrollton, Md. 20785

Condition 19: Recycling and Emissions Reduction
Effective between the dates of 09/09/2016 and 09/08/2021



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### Applicable Federal Requirement: 40CFR 82, Subpart F

#### Item 19.1:

The permittee shall comply with all applicable provisions of 40 CFR Part 82.

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

**Condition 20:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 6 NYCRR 200.7

#### Item 20.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

### Item 20.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The facility established a "Standard Operating Procedures for Multiple Hearth Incinerators" (SOP) manual, which is periodically updated to address changes at the plant. This manual contains appropriate system descriptions, process information and operating procedures that must be followed. Specifically, Section III-C lists recommended operating temperature specifications for each furnace, afterburner and venturi scrubber that must be maintained. Most importantly is a reference to furnace "Draft" (in wc) that is critical in minimizing the generation of particulate emissions.

The original SOP manual (July 1999) and updates are a part of this permit by reference. The SOP manual shall be updated and amended with equipment modifications and/or replacement and whenever operating modes and/or process control procedures change. Whenever a change is made to the SOP Manual, a copy of the updated manual must be submitted to NYSDEC within 30 days of finalizing the revisions. To account for recent reconstruction,



modification and construction of the sewage sludge incinerator(s), associated control equipment and the ash handling system and new applicable requirements, BSA shall update the SOP manual. The updated SOP shall also detail an emergency plan for sludge disposal if onsite incineration is not feasible or is not in compliance with 40CFR60, Subpart MMMM or any other applicable requirement(s). BSA's revised SOP manual shall be submitted to NYSDEC within 90 days of the issuance of this permit. The updated operating mode guidelines and process control procedures developed in the revised SOP manual shall be utilized in accordance with this condition and BSA's Air Title V Permit. If the monitoring plans required under 40CFR60 Subpart MMMM fulfill the requirement for the SOP, a separate SOP may be unnecessary. Replacement of the SOP with the Subpart MMMM monitoring plan(s) must be justified by BSA and accepted by NYSDEC.

Monitoring Frequency: CONTINUOUS Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 1/30/2017. Subsequent reports are due every 6 calendar month(s).

Condition 21: Compliance Certification Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 6 NYCRR Subpart 201-3

### Item 21.1:

The Compliance Certification activity will be performed for the Facility.

#### Item 21.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The requirements of 6 NYCRR Subpart 201-3 apply to all exempt and trivial activities at this facility. In accordance with §201-3.1(a), if the facility owner and/or operator performs any of the exempt and trivial activities listed in 6 NYCRR Part 201-3.2(c) or 201-3.3(c), such 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. In accordance with §201-3.2(b) and §201-3.3(b), the owner or operator of any emission source or activity that is listed as being exempt or trivial on the basis of the use of appropriate emission controls shall operate and maintain those controls in a manner consistent with



manufacturer's specifications and good engineering practices. Failure to do so constitutes a violation of this Part. 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. If the total potential to emit for all exempt and trivial activities at a facility exceeds, or causes the facility to exceed, the major facility threshold, as defined in Subpart 201-2 of this Part, the facility is both subject to the provisions of Subpart 201-6 of this Part and no longer considered exempt or trivial for permitting purposes. If physical and/or operational restrictions are required to maintain the total potential to emit for one or more of the listed exempt and trivial activities below the title V applicability thresholds described in Subpart 201-6 of this Part, or new source review requirements described in Part 231 of this Title, the activity is no longer considered exempt or trivial for permitting purposes. To remain eligible for exempt status, the facility must be able to demonstrate that an emission source or activity is operated and/or maintained as specified in §201-3.2 and/or §201-3.3 and is in continuous compliance with all applicable requirements. All records and pertinent information needed to verify compliance with 6NYCRR201-3 and any other applicable requirements must be maintained onsite for a minimum of five years. These records must be orderly and readily accessible for review by NYSDEC and/or USEPA representatives upon request.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2017.
Subsequent reports are due every 12 calendar month(s).

Condition 22: Emission Unit Definition
Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 6 NYCRR Subpart 201-6

### Item 22.1:

The facility is authorized to perform regulated processes under this permit for: Emission Unit: U-00002

**Emission Unit Description:** 

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

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> 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.

Building(s): MEB

### Item 22.2:

The facility is authorized to perform regulated processes under this permit for: Emission Unit: U-00003

**Emission Unit Description:** 

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.

Building(s): SDR

**Condition 23: Progress Reports Due Semiannually** 

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 6 NYCRR 201-6.4 (d) (4)

### Item 23.1:

Progress reports consistent with an applicable schedule of compliance are to be submitted at least semiannually, or at a more frequent period if specified in the applicable requirement or by the department. Such progress reports shall contain the following:

- (i) dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and
- (ii) an explanation of why any dates in the schedule of compliance were not or will not be met,



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and any preventive or corrective measures adopted.

**Condition 24:** Required Emissions Tests - Facility Level

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 6 NYCRR 202-1.1

#### Item 24.1:

An acceptable report of measured emissions shall be submitted, as required by the commissioner, to ascertain compliance or noncompliance with any air pollution code, rule, or regulation.

Condition 25: Air pollution prohibited

Effective between the dates of 09/09/2016 and 09/08/2021

**Applicable Federal Requirement: 6 NYCRR 211.1** 

#### Item 25.1:

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

**Condition 26:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:6 NYCRR 212-1.5 (e) (1)

### Item 26.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

#### Item 26.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

Processes operated at BSA's Bird Island Sewage Treatment Plant (STP) generate sewage sludge, which is disposed of through onsite incineration. The incinerators and associated control equipment are considered process emission sources as defined in 6NYCRR212-1. The sewage



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sludge incineration process at Bird Island STP is subject to 40CFR60 Subpart MMMM requirements. Sewage sludge incinerators are prohibited from operating unless full compliance has been demonstrated with contaminant limits specified under 40CFR60 Subpart MMMM, including particulate matter, hydrogen chloride, carbon monoxide, dioxans/furans, mercury, oxides of nitrogen, sulfur dioxide, cadmium and lead. In accordance with 6NYCRR212-1.5 (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. BSA is required to conduct performance tests annually for all contaminants regulated under 40CFR60 Subpart MMMM. The approved operating conditions under which emissions were in compliance during the performance test for 40 CFR60, Subpart MMMM must be maintained whenever the incinerator is operating. The requirements of 6NYCRR212-1.5(e)(2) supersede 6NYCRR212-1.5 (e)(1) requirements, when a high toxicity air contaminant (HTAC) is regulated under both a Federal NSPS and a Federal National Emission Standard for Hazardous Air Pollutants (NESHAP).

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 1/30/2017. Subsequent reports are due every 12 calendar month(s).

Condition 27: Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:6 NYCRR 212-1.5 (e) (2)

#### Item 27.1:

The Compliance Certification activity will be performed for the Facility.

#### Item 27.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

A process emission source subject to the Federal National Emission Standards for Hazardous Air Pollutants (NESHAP) under 40 CFR Part 61 or Part 63 (see Table 1 of 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



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demonstrate that the process emission source is in compliance with the relevant Federal regulation and, for those NESHAPs regulating HTACs found in Section 212-2.2, Table 2 – High Toxicity Air Contaminant List, of this Part, provide a Toxic Impact Assessment (TIA) demonstrating 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.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2017.
Subsequent reports are due every 12 calendar month(s).

**Condition 28:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:6 NYCRR 212-3.1 (c) (4) (i)

#### Item 28.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: INC

Emission Unit: U-00003

Process: SDI

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

#### Item 28.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

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 (RACT). In accordance with 6NYCRR212-3.1(e), any facility that is subject to VOC RACT requirements after May 31, 1995 will remain subject to these provisions even if the annual potential to emit VOCs later falls below the applicability threshold.



The facility's potential emissions of Volatile Organic Compounds (VOCs) exceed the 50 tons per year applicability threshold of this regulation. The two significant sources of VOCs are the sewage sludge incinerators and the sludge digesters. VOCs generated by the multiple hearth incinerators are controlled with an afterburner or a "Double Zero" Hearth afterburner that is part of the incinerator. Methane from the digester tanks is either burned in a flare or compressed, stored, and fed to the auxiliary boilers and/or incinerator burners as fuel.

The BSA Final Air Emissions Inventory and Compliance Plan developed for the initial Title V permit did not identify any other major sources of VOC emissions other than the incinerator and the digester tanks. VOC emissions from these two sources will meet the 81% overall removal efficiency required for RACT (capture and control) as defined in 6NYCRR Part 212-3.1(c)(4)(i). Tuning of incinerator burners, maintaining hearth and afterburner temperatures, maintaining the hydrocarbon analyzer and hydrocarbon emissions from the incinerators at less than 100 ppmv as required under 40 CFR Part 503 will ensure compliance with the 81 % overall removal efficiency requirement in 212-3.1(c)(4)(i). Tuning digester gas flares, monitoring, alarming and supplementing flares, if necessary, to ensure sustained ignition of the flares whenever gas is vented to them, operating and maintaining digesters in a manner that will ensure production of high quality biogas and maintaining the digester cover routinely will ensure compliance with this regulation. Monitoring of the temperatures at the incinerator is required elsewhere in this permit with specific reporting requirements. The flares on the digesters must maintain a log of maintenance, use, any malfunctions, quantity of fuel burned in the flare and sent to the auxiliary boilers, incinerators and afterburners, as applicable. Preventative maintenance of the flare shall be planned so that there are no unnecessary releases of digester gas. In the event that biogas is released prior to control, it must be quantified and reported to the NYSDEC within 24 hours of occurrence and shall include the cause and corrective action taken to stop the release. Otherwise, reporting is required semiannually.

BSA shall maintain all records onsite for five years and shall make records available to NYSDEC and/or EPA upon request.

Parameter Monitored: VOC Lower Permit Limit: 81 percent



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Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

**DESCRIPTION** 

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED

VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 29: Applicability of Subpart A General Provisions** 

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60, NSPS Subpart A

#### Item 29.1:

This Condition applies to:

Emission Unit: U00002

Process: ASH

Emission Unit: U00002

Process: INC

### Item 29.2:

This emission source is subject to the applicable general provisions of 40 CFR 60. The facility owner is responsible for complying with all applicable technical, administrative and reporting requirements.

**Condition 30: Compliance Certification** 

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.8, NSPS Subpart A

#### Item 30.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

#### Item 30.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

> These processes are subject to the requirements of 40CFR60-A.8 performance testing. If performance tests are conducted to determine compliance with more than one



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applicable requirement, operating conditions shall be equivalent during each performance test, whenever possible.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 31:** Circumvention.

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.12, NSPS Subpart A

#### Item 31.1:

This Condition applies to:

Emission Unit: U00002

Process: ASH

Emission Unit: U00002

Process: INC

IC

## Item 31.2:

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

**Condition 32:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.13, NSPS Subpart A

### Item 32.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

#### Item 32.2:

Compliance Certification shall include the following monitoring:



Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

All continuous monitoring systems and devices shall be installed, calibrated, maintained, and operated in accordance with the requirements of section 60.13.

For the purposes of this section, 40 CFR Part 60.13, all continuous monitoring systems required under applicable subparts of 40 CFR Part 60 shall be subject to the provisions of this section, upon promulgation of performance specifications for continuous monitoring systems under appendix B to this part, 40 CFR Part 60, and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to this part, unless otherwise specified in an applicable subpart or by the Administrator.

All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under §60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.

All continuous monitoring systems shall be in continuous operation and shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

Condition 33: Access to sludge charged for sampling

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:40CFR 60.153(a)(2), NSPS Subpart O

## Item 33.1:

This Condition applies to:

Emission Unit: U00002

Process: INC

Item 33.2:



40 CFR 60.153 Monitoring of operations.

(a) The owner or operator of any sludge incinerator subject to the provisions of Subpart O shall:

(2) Provide access to the sludge charged so that a well-mixed representative grab sample of the sludge can be obtained.

**Condition 34:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60, Subpart MMMM

#### Item 34.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

#### Item 34.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The Federal requirements of 40 CFR Part 60, Subpart MMMM apply to sewage sludge incineration (SSI) units, located at wastewater treatment facilities, designed to treat domestic sewage sludge, the construction of which commenced on or before October 14, 2010. The final compliance date for 40 CFR Part 60, Subpart MMMM requirements is March 21, 2016. An SSI unit that continued operating beyond the compliance deadline, demonstrated full compliance with 40 CFR Part 60, Subpart MMMM requirements by that date. Otherwise, the SSI unit was closed. The owner or operator may restart a closed SSI unit after the final compliance date, if the owner or operator completes emission control retrofits while not operating and meets the emissions and operating limits on the date the SSI unit restarts operation. Performance testing to demonstrate initial compliance with the emission limits and standards shall be conducted in accordance with §60.5185. An SSI that operates out of compliance after the final compliance date will be in violation of 40 CFR Part 60, Subpart MMMM and subject to enforcement action.

BSA owns three multiple hearth sewage sludge incinerators (SSI) subject to the requirements of 40 CFR Part 60, Subpart MMMM. One of the incinerators, identified as



Emission Source (ES) 0000E (aka INC 2) was rehabilitated to meet Subpart MMMM requirements, including replacing hearth burners and converting Hearth 1 and Hearth 2 of INC 2 into a double zero afterburner. The existing venturi scrubber and ancillary equipment used to control emissions from INC 2 were replaced with a new Enviro-Care Venturi-Pak scrubber system. Compliance with 40 CFR Part 60, Subpart MMMM requirements was initially demonstrated for INC 2 by a performance test conducted on June 18, 2014. The ash handling system associated with the incineration process is currently being replaced to meet 40 CFR Part 60, Subpart MMMM requirements. Completion is expected in the fall of 2016. At that time a performance test must be conducted to demonstrate compliance with the limit specified in 40 CFR Part 60, Subpart MMMM for fugitive emissions from ash handling. Upgrades to the two remaining incinerators, ES 0000D (aka INC 1) and ES 0000F (aka INC 3) necessary to meet 40CFR60, Subpart MMMM requirements were not completed by the compliance deadline. The rehabilitation of INC 3 is underway and is expected to be completed during the summer of 2017. Restarting INC 3 must be conducted in accordance with 40CFR60 Subpart MMMM requirements. BSA shall submit an application for a minor modification of the title V permit to include the rehabilitated INC 3 and ancillary equipment, operating limits established during the performance test required under 40CFR60 Subpart MMMM and other applicable requirements. A performance test was conducted on emissions from INC 1 on February 24, 2016 to verify compliance with 40CFR60 Subpart MMMM requirements. Results showed compliance with all contaminants regulated under 40CFR60 Subpart MMMM for multiple hearth SSIs except lead, cadmium and hydrogen chloride. Since the compliance deadline has passed, INC 1 is now closed and shall not operate until a performance test verifies compliance with the limits for all 40 CFR Part 60, Subpart MMMM regulated contaminants. BSA conducted a second performance test of INC 1 during May 11-12, 2016. If compliance is demonstrated, BSA may operate INC 1 as it was operated during the performance test; in compliance with the operating limits (total pressure drop through the scrubber, scrubber liquid flow rate, pH of the scrubber liquid at the scrubber outlet, temperature of the afterburner, and any other operating procedures used to minimize emissions) established by the performance test results in accordance with 40CFR60.5190; and in compliance with all other applicable 40 CFR Part 60, Subpart MMMM requirements. Failure to do so is a violation of 40 CFR Part 60, Subpart MMMM. If compliance with 40 CFR 60 Subpart MMMM cannot be demonstrated, BSA shall close INC 1. Restarting a closed incinerator shall be in accordance with 40CFR60 Subpart MMMM requirements.



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If BSA's SSI units are unable to process sewage sludge in compliance with 40CFR60, Subpart MMMM requirements, alternate methods of sewage sludge disposal shall be used, as detailed in the incinerator operation and monitoring plan. BSA shall never exceed the maximum average sludge feed rate for each incinerator determined during the latest performance test that showed compliance with all pollutant limits specified in 40 CFR Part 60, Subpart MMMM. The approved operating conditions under which emissions were in compliance during the performance test must be maintained whenever the incinerator is operating. Whenever possible, these conditions shall be equivalent to the operating conditions established during the performance test conducted to demonstrate compliance with any other requirements, as applicable.

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. The pollutants addressed by these emission guidelines are listed in Table 3 to this subpart. To the extent any requirement of this subpart is inconsistent with the requirements of subpart A of this part, the requirements of this subpart will apply.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 35:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5130, Subpart MMMM

#### Item 35.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

#### Item 35.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES



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### Monitoring Description:

The operator of a Sewage Sludge Incineration (SSI) unit must be fully trained and certified as described in 40 CFR 60.5130 and 40 CFR 60.5145. A SSI unit cannot be operated unless a fully trained and qualified SSI unit operator is on-site or able to be at the facility within 1 hour. A trained and qualified SSI unit operator may operate the SSI unit directly or be the direct supervisor of one or more other plant personnel who operate the unit. In order to be fully trained and qualified, the operator must successfully complete a Department approved training course and maintain that training through Department approved annual refresher courses. Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under §60.5130(c)(2).

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 36:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5135, Subpart MMMM

### Item 36.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

### Item 36.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The operator of a Sewage Sludge Incineration (SSI) unit must complete the operator training course by the later of the following dates:

- (a) The final compliance date; or
- (b) Six months after the date of SSI unit start-up; or

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(c) Six months after the operator assumes responsibility for operating the SSI unit or assumes responsibility for supervising the operation of the SSI unit.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 37: Compliance Certification** 

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5145, Subpart MMMM

#### Item 37.1:

The Compliance Certification activity will be performed for the Facility.

#### Item 37.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

To maintain qualification, an operator must complete an annual review or refresher course covering, at a minimum, the five topics described in paragraphs (a) through (e) of this section.

- (a) Update of regulations.
- (b) Incinerator operation, including startup and shutdown procedures, sewage sludge feeding, and ash handling.
- (c) Inspection and maintenance.
- (d) Prevention of malfunctions or conditions that may lead to malfunction.
- (e) Discussion of operating problems encountered by attendees.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 38:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5150, Subpart MMMM

### Item 38.1:

The Compliance Certification activity will be performed for the facility:

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The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

#### Item 38.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The holder of lapsed Sewage Sludge Incinerator (SSI) operator qualifications may resume operation of the SSI unit using one of the following methods:

- (a) For a lapse of less than 3 years, the operator must complete a Department approved annual refresher
- (b) For a lapse of 3 years or more, the operator must repeat the Department approved initial qualification training that satisfies the criteria under 60.5130(b).

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 39: Compliance Certification** 

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5155, Subpart MMMM

#### Item 39.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

#### Item 39.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

> The owner or operator of a Sewage Sludge Incineration (SSI) unit must meet the criteria in paragraph (a) or (b)



below during periods when a qualified operator is not accessible within the specified time period:

- (a) If a qualified operator is not accessible for more than 8 hours, the SSI unit may be operated for less than 2 weeks by other plant personnel who are familiar with the operation of the SSI unit and who have completed a review of the information specified in 40 CFR 60.5160 within the past 12 months. The facility must maintain a record of the period when a qualified operator was not accessible and include this deviation in their annual report as specified under 40 CFR 60.5235(d).
- (b) If a qualified operator will not be accessible for 2 weeks or more, the facility must:
- (1) Notify the Department of this deviation in writing within 10 days. In the notice, state what caused this deviation, what the facility is doing to ensure that a qualified operator is accessible, and when they anticipate that a qualified operator will be accessible; and
- (2) Submit a status report to the Department every 4 weeks outlining what the facility is doing to ensure that a qualified operator is accessible, stating when the facility anticipates that a qualified operator will be accessible, and requesting approval from the Department to continue operation of the SSI unit. The facility must submit the first status report 4 weeks after the Department was first notified of the deviation.
- (i) If the Department notifies the facility that their request to continue operation of the SSI unit is disapproved, the SSI unit may continue operation for 30 days, and then must cease operation.
- (ii) Operation of the unit may resume if a qualified operator is accessible as required under 60.5130(a). The facility must notify the Department within 5 days of having resumed operations and of having a qualified operator accessible.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 40:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5160, Subpart MMMM

#### Item 40.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002



Process: ASH

Emission Unit: U-00002

Process: INC

#### Item 40.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

- (a) The facility must maintain at the facility the documentation of the operator training procedures specified under §60.5230(c)(1) and make the documentation readily accessible to all SSI unit operators.
- (b) The facility must establish a program for reviewing the information listed in §60.5230(c)(1) with each qualified incinerator operator and other plant personnel who may operate the unit according to the provisions of §60.5155(a), according to the following schedule:
- (1) The initial review of the information listed in §60.5230(c)(1) must be conducted within 6 months after the effective date of this subpart or prior to an employee's assumption of responsibilities for operation of the SSI unit, whichever date is later.
- (2) Subsequent annual reviews of the information listed in §60.5230(c)(1) must be conducted no later than 12 months following the previous review.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 41: Compliance Certification** 

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5165, Subpart MMMM

## Item 41.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE



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### Item 41.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description:

The facility owner or operator must ensure that emissions of sulfur dioxide do not exceed 26 parts per million by volume (dry corrected to 7% oxygen) as an average of 3 stack test runs. Each test run must collect a minimum sample volume of 200 liters (if using Method 6) or a minimum duration of one hour (if using Method 6C). To demonstrate compliance with this limit, the facility owner or operator shall conduct a stack test, as described in 40 CFR 60.5220, on an annual basis. Annual testing must be conducted at least 11 months but not more than 13 months from the previous test as described in 40 CFR 60.5205(a).

Parameter Monitored: SULFUR DIOXIDE

Upper Permit Limit: 26 parts per million by volume (dry,

corrected to 7% O2)

Reference Test Method: EPA Reference Test Method 6 or 6C

Monitoring Frequency: ANNUALLY Averaging Method: ARITHMETIC MEAN

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 42:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5165, Subpart MMMM

#### Item 42.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

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

#### Item 42.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The facility owner or operator must ensure that emissions of oxides of nitrogen do not exceed 220 parts per million by volume (dry corrected to 7% oxygen) as an average of 3 stack test runs. Each test run must collect a sample for a minimum of one hour. To demonstrate compliance with this limit, the facility owner or operator shall conduct a

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stack test, as described in 40 CFR 60.5220, on an annual basis. Annual testing must be conducted at least 11 months but not more than 13 months from the previous test as described in 40 CFR 60.5205(a).

If operations at BSA produce a NOx plume regularly, BSA shall take measures to reduce the plume to a level that is acceptable to the department. BSA is required to limit oxygen content in incinerator exhaust gas under 40CFR60 Subpart O. Minimizing O2 results in a lower air- to- fuel ratio, which may reduce the formation of NOx during combustion of sewage sludge. The initial performance test results for INC 2 showed 209.5 ppmvd NOx @ 7% O2 in the exhaust, while operating the incinerator at 85 % capacity.

Parameter Monitored: OXIDES OF NITROGEN Upper Permit Limit: 220 parts per million by volume

(dry, corrected to 7% O2)

Reference Test Method: EPA Reference Test Method 7 or 7E

Monitoring Frequency: ANNUALLY Averaging Method: ARITHMETIC MEAN

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 43: Compliance Certification** 

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5165, Subpart MMMM

## Item 43.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 007439-92-1 LEAD

### Item 43.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description:

The facility owner or operator must ensure that emissions of lead do not exceed 0.30 milligrams per dry standard cubic meter (corrected to 7% oxygen) as an average of 3 stack test runs. Each test run must collect a minimum sample volume of one dry standard cubic meter. To demonstrate compliance with this limit, the facility owner or operator shall conduct a stack test, as described in 40 CFR 60.5220, on an annual basis. Annual testing must be



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conducted at least 11 months but not more than 13 months from the previous test as described in 40 CFR 60.5205(a).

Parameter Monitored: LEAD

Upper Permit Limit: 0.30 milligrams per dry standard

cubic meter (corrected to 7% oxygen)

Reference Test Method: EPA Reference Test Method 29

Monitoring Frequency: ANNUALLY Averaging Method: ARITHMETIC MEAN

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 44: Compliance Certification** 

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5165, Subpart MMMM

#### Item 44.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 000630-08-0 CARBON MONOXIDE

### Item 44.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The facility owner or operator must ensure that emissions of carbon monoxide do not exceed 3,800 parts per million by volume (dry corrected to 7% oxygen) as an average of 3 stack test runs. Each test run must collect a sample for a minimum of one hour. To demonstrate compliance with this limit, the facility owner or operator shall conduct a stack test, as described in 40 CFR 60.5220, on an annual basis. Annual testing must be conducted at least 11 months but not more than 13 months from the previous test as described in 40 CFR 60.5205(a).

Parameter Monitored: CARBON MONOXIDE

Upper Permit Limit: 3800 parts per million by volume

(dry, corrected to 7% O2)

Reference Test Method: EPA Reference Test Method 10, 10A or 10B

Monitoring Frequency: ANNUALLY Averaging Method: ARITHMETIC MEAN

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 45:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021



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### Applicable Federal Requirement: 40CFR 60.5165, Subpart MMMM

### Item 45.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 007440-43-9 CADMIUM

### Item 45.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The facility owner or operator must ensure that emissions of cadmium do not exceed 0.095 milligrams per dry standard cubic meter (corrected to 7% oxygen) as an average of 3 stack test runs. Each test run must collect a sample with a minimum volume of 1.0 dry standard cubic meters. To demonstrate compliance with this limit, the facility owner or operator shall conduct a stack test, as described in 40 CFR 60.5220, on an annual basis. Annual testing must be conducted at least 11 months but not more than 13 months from the previous test as described in 40 CFR 60.5205(a).

Parameter Monitored: CADMIUM

Upper Permit Limit: 0.095 milligrams per dry standard cubic meter (corrected to 7% oxygen)

Reference Test Method: EPA Reference Test Method 29

Monitoring Frequency: ANNUALLY Averaging Method: ARITHMETIC MEAN

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 46:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5165, Subpart MMMM

## Item 46.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

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#### Item 46.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The facility owner or operator shall ensure that fugitive emissions of combustion ash from an ash handling system (including conveyor transfer points) are not visible for more than five percent of each hourly observation period. Visible emissions readings must be conducted over three 1-hour observation periods in order to demonstrate compliance with this condition.

Process Material: ASH

Parameter Monitored: VISIBLE EMISSIONS

Upper Permit Limit: 5 percent

Reference Test Method: EPA Reference Test Method 22

Monitoring Frequency: ANNUALLY

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -

SEE MONITORING DESCRIPTION

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 47: Compliance Certification** 

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5165, Subpart MMMM

### Item 47.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 007439-97-6 MERCURY

### Item 47.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description:

The facility owner or operator must ensure that emissions of mercury do not exceed 0.28 milligrams per dry standard cubic meter (corrected to 7% oxygen) as an average of 3 stack test runs. Each test run must collect a minimum sample volume of one dry standard cubic meter (if using Method 29) or a minimum sample as described in the test method (if using Method 30B). To demonstrate compliance with this limit, the facility owner or operator shall conduct a stack test, as described in 40 CFR 60.5220, on



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an annual basis. Annual testing must be conducted at least 11 months but not more than 13 months from the previous test as described in 40 CFR 60.5205(a).

Parameter Monitored: MERCURY

Upper Permit Limit: 0.28 milligrams per dry standard cubic meter (corrected to 7% oxygen)

Reference Test Method: EPA Reference Test Method 29 or 30B

Monitoring Frequency: ANNUALLY Averaging Method: ARITHMETIC MEAN

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 48:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5165, Subpart MMMM

#### Item 48.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

#### Item 48.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description:

The facility owner or operator must ensure that emissions of particulate matter do not exceed 80 milligrams per dry standard cubic meter (corrected to 7% oxygen) as an average of 3 stack test runs. Each test run must collect a minimum sample volume of 0.75 dry standard cubic meter. To demonstrate compliance with this limit, the facility owner or operator shall conduct a stack test, as described in 40 CFR 60.5220, on an annual basis. Annual testing must be conducted at least 11 months but not more than 13 months from the previous test as described in 40 CFR 60.5205(a).

Parameter Monitored: PARTICULATES

Upper Permit Limit: 80 milligrams per dry standard cubic

meter (corrected to 7% oxygen)

Reference Test Method: EPA Reference Test Method 5, 26A or 29

Monitoring Frequency: ANNUALLY Averaging Method: ARITHMETIC MEAN

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 49: Compliance Certification** 

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Applicable Federal Requirement: 40CFR 60.5165, Subpart MMMM

#### Item 49.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 001746-01-6 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN

#### Item 49.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description:

The facility owner or operator must ensure that emissions of dioxins and furans on a total mass basis do not exceed 5.0 nanograms per dry standard cubic meter (corrected to 7% oxygen) as an average of 3 stack test runs. Each test run must collect a minimum sample volume of one dry standard cubic meter. To demonstrate compliance with this limit, the facility owner or operator shall conduct a stack test, as described in 40 CFR 60.5220, on an annual basis. Annual testing must be conducted at least 11 months but not more than 13 months from the previous test as described in 40 CFR 60.5205(a).

The owner or operator of a Sewage Sludge Incineration (SSI) unit may choose to comply with the applicable dioxin standard on either a total mass or toxic equivalency (TEQ) basis as described in Table 2 or Table 3 of 40 CFR 60 Subpart MMMM. The facility owner or operator must indicate which standard the facility is choosing to demonstrate compliance with as part of each stack testing protocol submitted to the Department.

Parameter Monitored: 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN

Upper Permit Limit: 5.0 nanograms per dry standard cubic

meter (corrected to 7% O2)

Reference Test Method: EPA Reference Test Method 23

Monitoring Frequency: ANNUALLY Averaging Method: ARITHMETIC MEAN

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 50:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5165, Subpart MMMM



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#### Item 50.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 001746-01-6 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN

## Item 50.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description:

The facility owner or operator must ensure that emissions of dioxins and furans on a toxic equivalency basis do not exceed 0.32 nanograms per dry standard cubic meter (corrected to 7% oxygen) as an average of 3 stack test runs. Each test run must collect a minimum sample volume of one dry standard cubic meter. To demonstrate compliance with this limit, the facility owner or operator shall conduct a stack test, as described in 40 CFR 60.5220, on an annual basis. Annual testing must be conducted at least 11 months but not more than 13 months from the previous test as described in 40 CFR 60.5205(a). Dioxan /furan toxic equivalency shall be determined as described in \$60.5205(c)(1) through (3).

The owner or operator of a Sewage Sludge Incineration (SSI) unit may choose to comply with the applicable dioxin standard on either a total mass or toxic equivalency (TEQ) basis as described in Table 3 of 40 CFR 60 Subpart MMMM. The facility owner or operator must indicate which standard the facility is choosing to demonstrate compliance with as part of each stack testing protocol submitted to the Department.

Parameter Monitored: 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN

Upper Permit Limit: 0.32 nanograms per dry standard cubic meter (corrected to 7% O2)

Reference Test Method: EPA Reference Test Method 23

Monitoring Frequency: ANNUALLY Averaging Method: ARITHMETIC MEAN

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 51:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5165, Subpart MMMM



Permit ID: 9-1402-00154/00007 Facility DEC ID: 9140200154

#### Item 51.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 007647-01-0 HYDROGEN CHLORIDE

#### Item 51.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description:

The facility owner or operator must ensure that emissions of hydrogen chloride do not exceed 1.2 parts per million by volume (dry corrected to 7% oxygen) as an average of 3 stack test runs. Each test run must collect a minimum sample volume of 200 liters (if using Method 26) or one dry standard cubic meter (if using Method 26A). To demonstrate compliance with this limit, the facility owner or operator shall conduct a stack test, as described in 40 CFR 60.5220, on an annual basis. Annual testing must be conducted at least 11 months but not more than 13 months from the previous test as described in 40 CFR 60.5205(a).

Parameter Monitored: HYDROGEN CHLORIDE Upper Permit Limit: 1.2 parts per million by volume

(dry, corrected to 7% O2)

Reference Test Method: EPA Reference Test Method 26 or 26A

Monitoring Frequency: ANNUALLY Averaging Method: ARITHMETIC MEAN

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 52:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5170, Subpart MMMM

#### Item 52.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

#### Item 52.2:

Compliance Certification shall include the following monitoring:

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Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The facility must meet, as applicable, the operating limits and requirements specified in paragraphs (a) through (d) and (h) of this section, according to the schedule specified in paragraph (e) of this section. The operating parameters for which operating limits will be established for a wet scrubber, fabric filter, electrostatic precipitator, or activated carbon injection are listed in Table 4 to this subpart. The facility must comply with the operating requirements in paragraph (f) of this section and the requirements in paragraph (g) of this section for meeting any new operating limits, re-established in §60.5210. The operating limits apply at all times that sewage sludge is in the combustion chamber (i.e., until the sewage sludge feed to the combustor has been cut off for a period of time not less than the sewage sludge incineration residence time).

- (a) The facility must meet a site-specific operating limit for minimum operating temperature of the combustion chamber (or afterburner combustion chamber) that you establish in \$60.5190.
- (b) If the facility uses a wet scrubber, electrostatic precipitator, activated carbon injection, or afterburner to comply with an emission limit, the site-specific operating limits that you establish in §60.5190 for each operating parameter associated with each air pollution control device must be met.
- (c) If a facility uses a fabric filter to comply with the emission limits, the bag leak detection system specified in §§60.5200(b) and 60.5225(b)(3)(i) must be installed and the bag leak detection system must be operated such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. The facility must calculate the alarm time as specified in §60.5210(a)(2)(i).
- (d) The facility must meet the operating requirements in the site-specific fugitive emission monitoring plan, submitted as specified in §60.5200(d) to ensure that the ash handling system will meet the emission standard for fugitive emissions from ash handling.
- (e) The facility must meet the operating limits and requirements specified in paragraphs (a) through (d) of this section by the final compliance date under the approved state plan, Federal plan, or delegation, as applicable.



- (f) The facility must monitor the feed rate and moisture content of the sewage sludge fed to the sewage sludge incinerator, as specified in paragraphs (f)(1) and (f)(2) of this section.
- (1) Continuously monitor the sewage sludge feed rate and calculate a daily average for all hours of operation during each 24-hour period. Keep a record of the daily average feed rate, as specified in §60.5230(f)(3)(ii).
- (2) Take at least one grab sample per day of the sewage sludge fed to the sewage sludge incinerator. If more than one grab sample is taken in a day, calculate the daily average for the grab samples. Keep a record of the daily average moisture content, as specified in §60.5230(f)(3)(ii).
- (g) For the operating limits and requirements specified in paragraphs (a) through (d) and (h) of this section, the facility must meet any new operating limits and requirements, re-established according to \$60.5210(d).
- (h) If a facility uses an air pollution control device other than a wet scrubber, fabric filter, electrostatic precipitator, or activated carbon injection to comply with the emission limits in Table 2 or 3 to this subpart, any site-specific operating limits or requirements established as required in §60.5175 must be met.

The facility owner or operator shall maintain all records 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.

The facility is required to report semiannually and annually as specified under 6NYCRR201-6.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 53:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5170(f), NSPS Subpart

**MMMM** 

Item 53.1:



The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: INC Emission Source: 0000E

#### Item 53.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The facility owner or operator must maintain a record of the daily average moisture content of sewage sludge fed to the Sewage Sludge Incineration (SSI) unit. In order to demonstrate compliance with this condition, the facility owner or operator must take at least one grab sample per day of the sewage sludge fed to the SSI unit and calculate its moisture content. The average percent solids in the sludge incinerated during the June 18, 2014 perfomance test for INC 2 was 29.4%. If more than one sample is taken, the facility owner or operator shall calculate the daily average of the samples. 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 Frequency: DAILY

Averaging Method: 24 HOUR DAILY AVERAGE (ARITHMETIC

MEAN)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 54:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:40CFR 60.5170(f), NSPS Subpart

#### **MMMM**

### Item 54.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002



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Process: INC Emission Source: 0000E

#### Item 54.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The facility owner or operator 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. Based on the June 18, 2014 performance test results, the maximum daily feed rate allowed for INC 2 is 61.92 dry tons. The facility owner or operator shall maintain a record of each daily average feed rate 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.

Work Practice Type: PROCESS MATERIAL THRUPUT

Process Material: SLUDGE

Upper Permit Limit: 61.92 dry tons per day Monitoring Frequency: CONTINUOUS

Averaging Method: 24 HOUR DAILY AVERAGE (ARITHMETIC

MEAN)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 55:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5175, Subpart MMMM

## Item 55.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: INC

#### Item 55.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

If you use an air pollution control device other than a



wet scrubber, fabric filter, electrostatic precipitator, activated carbon injection, or afterburner, or limit emissions in some other manner (e.g., materials balance) to comply with the emission limits in §60.5165, you must meet the requirements in paragraphs (a) and (b) of this section.

- (a) Meet the applicable operating limits and requirements in §60.4850, and establish applicable operating limits according to §60.5190.
- (b) Petition the Administrator for specific operating parameters, operating limits, and averaging periods to be established during the initial performance test and to be monitored continuously thereafter.
- (1) You are responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. You must not conduct the initial performance test until after the petition has been approved by the Administrator, and you must comply with the operating limits as written, pending approval by the Administrator. Neither submittal of an application, nor the Administrator's failure to approve or disapprove the application relieves you of the responsibility to comply with any provision of this subpart.
- (2) Your petition must include the five items listed in paragraphs (b)(2)(i) through (b)(2)(v) of this section.
- (i) Identification of the specific parameters you propose to monitor.
- (ii) A discussion of the relationship between these parameters and emissions of regulated pollutants, identifying how emissions of regulated pollutants change with changes in these parameters, and how limits on these parameters will serve to limit emissions of regulated pollutants.
- (iii) A discussion of how you will establish the upper and/or lower values for these parameters that will establish the operating limits on these parameters, including a discussion of the averaging periods associated with those parameters for determining compliance.
- (iv) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments.
- (v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION



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**Condition 56:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5180, Subpart MMMM

#### Item 56.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

#### Item 56.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The emission limits and standards apply at all times and during periods of malfunction. The emission limits and standards apply to emissions from a bypass stack or vent while sewage sludge is in the combustion chamber. The operating limits apply at all times that sewage sludge is in the combustion chamber. Sewage sludge is considered in the combustion chamber until the sewage sludge feed to the combustor has been cut off for a period of time not less than the sewage sludge incineration residence time.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 57:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5185, Subpart MMMM

## Item 57.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

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#### Item 57.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

To demonstrate initial compliance with the emission limits and standards in Table 2 or 3 to this subpart, the facility shall use the procedures specified in paragraph (a) of this section. The facility must meet the requirements of paragraphs (a) and (b) of this section, as applicable, and paragraphs (c) through (e) of this section, according to the performance testing, monitoring, and calibration requirements in §60.5220(a) and (b).

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 58:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5190, Subpart MMMM

### Item 58.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH Emission Source: ASHHO

Emission Unit: U-00002

Process: ASH Emission Source: SPRTW

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

### Item 58.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The incinerator ash handling system is pneumatic and maintains a spray tower to clean the air stream prior to exhausting emissions to the main stack. Maintenance of the spray tower is critical to maintaining emissions in compliance with 40CFR60, Subpart MMMM, 40CFR60 Subpart O and 6NYCRR212 requirements and opacity standards. The spray tower water pressure must be monitored and



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maintained within appropriate ranges. Truck ash loading area must be kept clean. Routine maintenance records must be kept on a weekly basis. Each exhauster/spray tower is monitored for flow rate, range of 10 to 20 gpm, and pressure, range of 40 to 80 psi. All records pertaining to operation, monitoring, calibration, inspection, repair and maintenance of the ash handling system and associated equipment and ash disposal shall be maintained onsite and shall be readily available for NYSDEC and/or USEPA review upon request.

Parameter Monitored: PRESSURE

Lower Permit Limit: 40 pounds per square inch gauge Upper Permit Limit: 80 pounds per square inch gauge

Monitoring Frequency: DAILY

Averaging Method: RANGE - NOT TO FALL OUTSIDE OF STATED

RANGE AT ANY TIME

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 59:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5190, Subpart MMMM

### Item 59.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

### Item 59.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

(a) You must establish the site-specific operating limits specified in paragraphs (b) through (h) of this section or established in §60.5175, as applicable, during your initial performance tests required in §60.5185. You must meet the requirements in §60.5210(d) to confirm these operating limits or re-establish new operating limits using operating data recorded during any performance tests or performance evaluations required in §60.5205. You must follow the data measurement and recording frequencies and



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data averaging times specified in Table 4 to this subpart or as established in §60.5175, and you must follow the testing, monitoring, and calibration requirements specified in §§60.5220 and 60.5225 or established in §60.5175. BSA shall maintain all records of monitoring, testing, calibration, maintenance, repair, evaluation, inspection and malfunction on site and shall be readily available for NYSDEC and/or USEPA review upon request.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 1/30/2017. Subsequent reports are due every 6 calendar month(s).

**Condition 60:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:40CFR 60.5190(b), NSPS Subpart

#### **MMMM**

#### Item 60.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: INC Emission Source: 0000E

### Item 60.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

In accordance with \$60.5190(b) the facility shall establish the minimum pressure drop across each wet scrubber used to meet the particulate matter, lead, and cadmium emission limits in Table 2 or 3 to this subpart, equal to the lowest 4-hour average pressure drop across each such wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter, lead, and cadmium emission limits.

BSA established the site-specific operating limit specified below during the initial performance test conducted for INC2 (Emission Source 0000E) on June 18, 2014 to demonstrate compliance with 40CFR60 Subpart MMMM requirements. Based on the lowest 4-hour average total pressure drop recorded during the performance test, BSA shall operate the venturi scrubber system associated with

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INC 2 with a minimum total pressure drop of 24.2 inches of water column across the wet scrubbing system. The limit for the minimum total pressure drop across the wet scrubber shall be confirmed or reestablished during subsequent performance tests. If a new limit is established, it will apply from that point forward. In accordance with 40CFR60, Subpart MMMM, Table 4 the minimum pressure drop across the wet scrubber shall be measured continuously, with data recording every 15 minutes. The data averaging period for compliance shall be a 12-hour block. Data recording time refers to the minimum frequency that the continuous monitor or other measuring device initially records data. For all data recorded every 15 minutes, you must calculate hourly arithmetic averages, which must be used to calculate the 12-hour block average for demonstrating compliance with the minimum total pressure drop limit.

Operation of the wet scrubber below the established minimum total pressure drop constitutes a deviation, which must be reported in the deviation report as specified in §60.5235(d) and Table 6 of Subpart MMMM for each instance that the minimum operating limit is not met. Details of any corrective action taken to remedy the cause of the deviation must be included in the deviation report. The deviation report must be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data you collected during the second half of the calendar year (July 1 to December 31).

This continuous parameter monitoring system shall be installed, operated, calibrated, maintained and evaluated in accordance with 60.5200 (a)(3)(ii)(B)(1) through (6) and BSA's monitoring plan for the continuous pressure monitoring system. All records, including 1-hour averages for the continuous monitoring of total pressure drop across the wet scrubber, shall be maintained in accordance with §60.5230 at the facility for a period of at least 5 years and must be available in either paper copy or computer-readable format that can be printed upon request by the Department.

Parameter Monitored: PRESSURE DROP Lower Permit Limit: 24.2 inches of water Monitoring Frequency: CONTINUOUS

Averaging Method: 12-HOUR BLOCK AVERAGE

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 61: Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021



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### Applicable Federal Requirement:40CFR 60.5190(c), NSPS Subpart

#### **MMMM**

#### Item 61.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: INC Emission Source: 0000E

#### Item 61.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

In accordance with \$60.5190(c) the facility shall establish the minimum scrubber liquid flow rate (measured at the inlet to each wet scrubber), equal to the lowest 4-hour average liquid flow rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

BSA established the site-specific operating limit specified below during the initial performance test conducted for INC 2 (Emission Source 0000D) on June 18, 2014 demonstrating compliance with all emission limits specified by 40CFR60 Subpart MMMM. Based on the lowest 4-hour average scrubber liquid flow rate recorded at the venturi scrubber inlet during the initial performance test, BSA shall operate the venturi scrubber associated with INC 2 with a minimum total scrubber liquid flow rate of 1190 gallons per minute. The limit for the minimum total scrubber liquid flow rate will be confirmed or resestablished during subsequent performance tests. If a new limit is established, it will apply from that point forward. The scrubber liquid flow rate shall be measured continuously at the inlet to the wet scrubber, with the data recorded every 15 minutes. The data averaging period for compliance shall be a 12-hr block. Data recording time refers to the minimum frequency that the continuous monitor or other measuring device initially records data. For all data recorded every 15 minutes, you must calculate hourly arithmetic averages, which must be used to calculate the 12-hour block average for demonstrating compliance with the minimum scrubber liquid flow rate limit.

Operation of the wet scrubber below the established minimum total scrubber liquid flow rate constitutes a deviation, which must be reported in the deviation report



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as specified in §60.5235(d) and Table 6 of Subpart MMMM for each instance that the minimum operating limit is not met. Details of any corrective action taken to remedy the cause of the deviation must be included in the deviation report. The deviation report must be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data you collected during the second half of the calendar year (July 1 to December 31).

This continuous parameter monitoring system shall be designed, installed, operated, calibrated, maintained and evaluated in accordance with 60.5200 (a)(3)(ii)(A)(1) through (4) and BSA's monitoring plan for the continuous flow monitoring system. All records, including 1-hour averages for the continuous monitoring of flow rate into the wet scrubber, shall be maintained in accordance with \$60.5230 at the facility for a period of at least 5 years and must be available in either paper copy or computer-readable format that can be printed upon request by the Department.

Parameter Monitored: FLOW RATE

Lower Permit Limit: 1190 gallons per minute

Monitoring Frequency: CONTINUOUS

Averaging Method: 12-HOUR BLOCK AVERAGE

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 62:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5190(d), NSPS Subpart

### **MMMM**

#### Item 62.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: INC Emission Source: 0000E

### Item 62.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

In accordance with §60.5190(d) the facility shall establish the minimum scrubber liquid pH for each wet scrubber used to meet the sulfur dioxide or hydrogen

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chloride emission limits in Table 2 or 3 to this subpart, equal to the lowest 1-hour average scrubber liquid pH measured at the scrubber outlet during the most recent performance test demonstrating compliance with the sulfur dioxide and hydrogen chloride emission limits.

BSA established the site-specific operating limit specified below for INC 2 (Emission Source 0000D) during the initial performance test conducted on June 18, 2014 to demonstrate compliance with SO2 and HCl limits specified under 40CFR60 Subpart MMMM. Based on the lowest 1-hour average pH of the scrubber liquid measured during the initial performance test using the continuous pH monitor, BSA shall operate the wet scrubber associated with INC 2 with a pH of not less than 6.1 measured in the scrubber liquid at the scrubber outlet. This pH limit must be confirmed or reestablished during subsequent performance tests using a continuous pH monitor, that is calibrated and operating properly. If a new limit is established, it will apply from that point forward. In accordance with 40CFR60, Subpart MMMM, Table 4, the minimum scrubber liquid pH shall be measured continuously, with the data recorded every 15 minutes. The data averaging period for compliance shall be a 3-hour block. Data recording time refers to the minimum frequency that the continuous monitor or other measuring device initially records data. For all data recorded every 15 minutes, you must calculate hourly arithmetic averages, which must be used to calculate the 3-hour block average for demonstrating compliance with the minimum pH limit.

Operation of the wet scrubber below the established minimum pH limit for the scrubber effluent constitutes a deviation, which must be reported in the deviation report as specified in  $\S60.5235(d)$  and Table 6 of Subpart MMMM for each instance that the minimum operating limit is not met. Details of any corrective action taken to remedy the cause of the deviation must be included in the deviation report. The deviation report must be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data you collected during the second half of the calendar year (July 1 to December 31).

This continuous parameter monitoring system shall be installed, operated, calibrated, maintained and evaluated in accordance with 60.5200 (a)(3)(ii)(C)(1) through (4) and BSA's monitoring plan for the continuous pH monitoring system. All records, including 1-hour averages for the continuous monitoring of scrubber liquid pH, shall be maintained in accordance with \$60.5230 at the facility for



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a period of at least 5 years and must be available in either paper copy or computer-readable format that can be printed upon request by the Department.

Parameter Monitored: PH

Lower Permit Limit: 6.1 pH (STANDARD) units

Monitoring Frequency: CONTINUOUS

Averaging Method: 3-HOUR BLOCK AVERAGE

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 63:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:40CFR 60.5190(e), NSPS Subpart

### **MMMM**

### Item 63.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: INC Emission Source: 0000E

### Item 63.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

In accordance with §60.5190(e) the facility shall establish the minimum combustion chamber operating temperature (or minimum afterburner temperature), equal to the lowest 4-hour average combustion chamber operating temperature (or afterburner temperature) measured during the most recent performance test demonstrating compliance with all applicable emission limits.

BSA established the site-specific operating limit specified below during the initial performance test conducted for INC 2 (Emission Source 0000E) on June 18, 2014 to demonstrate compliance with all applicable emission limits specified under 40CFR60 Subpart MMMM. Based on the lowest 4-hour average temperature recorded at the outlet of the double zero hearth afterburner during the performance test, BSA shall operate INC 2 with a minimum afterburner gas outlet temperature of 979 degrees Fahrenheit. The limit for the minimum afterburner gas outlet temperature will be confirmed or reestablished during subsequent performance tests. If a new limit is established, it will apply from that point forward. In accordance with 40CFR60, Subpart MMMM, Table 4, the minimum afterburner gas outlet temperature shall be



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measured continuously, with the data recorded every 15 minutes. The data averaging period for compliance shall be a 12-hr block. Data recording time refers to the minimum frequency that the continuous monitor or other measuring device initially records data. For all data recorded every 15 minutes, you must calculate hourly arithmetic averages, which must be used to calculate the 12-hour block average for demonstrating compliance with the afterburner gas outlet temperature limit.

Operation of the double zero hearth afterburner below the established minimum afterburner gas outlet temperature constitutes a deviation, which must be reported in the deviation report as specified in §60.5235(d) and Table 6 of Subpart MMMM for each instance that the minimum operating limit is not met. Details of any corrective action taken to remedy the cause of the deviation must be included in the deviation report. The deviation report must be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data you collected during the second half of the calendar year (July 1 to December 31).

This continuous parameter monitoring system shall be designed, installed, operated, calibrated, maintained and evaluated in accordance with 60.5200 (a)(3)(ii)(D)(1) through (4) and BSA's monitoring plan for the continuous temperature monitoring system. All records, including 1-hour averages for the continuous monitoring of the temperature of the gas at the outlet of the double zero hearth afterburner, shall be maintained in accordance with \$60.5230 at the facility for a period of at least 5 years and must be available in either paper copy or computer-readable format that can be printed upon request by the Department.

Parameter Monitored: TEMPERATURE Lower Permit Limit: 979 degrees Fahrenheit Monitoring Frequency: CONTINUOUS

Averaging Method: 12-HOUR BLOCK AVERAGE

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 64:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5195, Subpart MMMM

### Item 64.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:



Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

### Item 64.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The facility owner or operator must conduct an initial air pollution control device inspection, as described in 40 CFR 60.5220(c), by March 21, 2016. For air pollution control devices installed after the final compliance date, the facility owner or operator must conduct the air pollution control device inspection within 60 days after installation of the control device.

Within 10 operating days following the air pollution control device inspection under paragraph (a) of this section, all necessary repairs must be completed unless you obtain written approval from the Department establishing a date whereby all necessary repairs of the SSI unit must be completed.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 1/30/2017.

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

**Condition 65:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5200, Subpart MMMM

### Item 65.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

### Item 65.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES



### Monitoring Description:

The owner or operator of a Sewage Sludge Incineration (SSI) unit must develop, submit and implement a site-specific monitoring plan for each continuous monitoring system required under this subpart, as described in 40 CFR 60.5200 (a) through (c), as applicable. The owner or operator of a SSI must also develop, submit and implement a site-specific monitoring plan for the ash handling system, as specified in paragraph (d) of this section. The monitoring plans must be submitted and updated as specified in paragraphs (f) through (h) of this section. At a minimum, the monitoring plans must contain the following information:

- (a) The elements and requirements specified in 40 CFR 60.5200(a), as applicable, for each continuous monitoring system installed at the facility.
- (b) A description of the items listed in 40 CFR 60.5200(b) if a bag leak detection system is used.
- (c) Provisions for conducting an initial performance evaluation of each continuous monitoring system and bag leak detection system, as applicable, in accordance with the monitoring plan and the requirements of 40 CFR 60.13(c). Each such performance evaluation shall be conducted within 60 days of the installation of the monitoring system.
- (d) Specification of the operating procedures for the ash handling system that the facility owner or operator will follow to meet the fugitive emissions limitation in Subpart MMMM.

Monitoring plans developed pursuant to this condition must be submitted to the Department at least 60 days prior to the initial performance evaluation of the continuous monitoring system(s) and the initial compliance test date for the ash handling system. Monitoring plans must be submitted to the Department, at least 60 days in advance of the initial compliance date (March 21, 2016). If a sewage sludge incinerator that is shut down prior to March 21, 2016 because it is not able to demonstrate compliance is rehabilitated to meet Subpart MMMM requirements, the monitoring plan for that incinerator shall be submitted at least 60 days prior to conducting performance evaluations and tests.

The facility owner or operator must update and resubmit the monitoring plan if there are any changes or potential changes in the monitoring procedures or if there is a process change, as defined in §60.5250.



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The monitoring plan developed pursuant to this condition, including any changes, must be maintained on site, and must be provided to the Department upon request.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

**DESCRIPTION** 

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 66:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5205, Subpart MMMM

### Item 66.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

### Item 66.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The facility owner or operator must demonstrate initial and continuous compliance with the emission limits and standards specified in this permit. Continuous compliance is demonstrated using an initial performance test and subsequent performance tests for each pollutant on an annual basis (between 11 and 13 calendar months following the previous performance test). Each performance test must be conducted using the test methods, averaging methods, and minimum sampling volumes or durations as specified for each pollutant in this permit, and according to the testing, monitoring, and calibration requirements specified in 40 CFR 60.5220(a).

The facility owner or operator must repeat the performance test within 60 days of a significant permit revision involving a process change, as described in 40 CFR 60.5250.

The facility owner or operator may conduct a repeat performance test at any time to establish new values for the operating limits. If successful, the new operating limits will apply from that point forward.



The Department reserves the right to request a repeat performance test at any time.

The facility owner must submit an annual compliance report as specified in §60.5235(c) and a deviation report as specified in §60.5235(d) for each instance that each emission limit in Table 2 to this subpart was not met.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

**DESCRIPTION** 

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 67: Compliance Certification** 

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:40CFR 60.5205(a)(3), Subpart MMMM

### Item 67.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

### Item 67.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The facility owner or operator may reduce the frequency of performance testing for a given pollutant as follows:

- (1) If the results of the performance test for at least 2 consecutive years demonstrate that emissions are at or below 75 percent of the specified emission limit, and there have been no changes in the operation of the SSI unit or air pollution control equipment that could increase emissions, the facility owner or operator does not have to conduct a performance test for that pollutant for the next 2 years. The facility owner or operator must conduct a performance test during the third year (no more than 37 months from the previous performance test).
- (2) If the SSI unit continues to meet the emission limit for the pollutant, the facility may choose to continue conducting performance tests for the pollutant every third year (no more than 37 months from the previous performance test) if emissions remain at or below 75 percent of the



emission limit, and no changes are made to the operation of the affected source or air pollution control equipment that could increase emissions.

(3) If a performance test shows emissions exceeded 75 percent of the emission limit for a pollutant, the facility must resume conducting annual performance tests for that pollutant until all performance tests over 2 consecutive years demonstrate compliance.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2017.
Subsequent reports are due every 12 calendar month(s).

**Condition 68:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5210, Subpart MMMM

### Item 68.1:

The Compliance Certification activity will be performed for the Facility.

### Item 68.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The owner or operator of a Sewage Sludge Incinerator (Facility) must continuously monitor operating parameters as specified in paragraph (a) of this section and meet the requirements of paragraphs (b) and (c) of this section, according to the monitoring and calibration requirements in §60.5225. Operating limits must be confirmed and re-established, as specified in paragraph (d) of this section.

- (a) The Facility must continuously monitor the operating parameters specified in paragraphs (a)(1) and (a)(2) of this section, as applicable, using the continuous monitoring equipment and according to the procedures specified in §60.5225. To determine compliance, the data averaging period specified in Table 4 to this subpart must be used.
- (1) The Facility must demonstrate that the SSI unit meets the operating limits established according to §60.5190 and paragraph (d) of this section for each applicable operating parameter.
- (b) Operation above the established maximum, below the



established minimum, or outside the allowable range of the operating limits specified in paragraph (a) of this section constitutes a deviation from the operating limits established under this subpart, except during performance tests conducted to determine compliance with the emission and operating limits or to establish new operating limits. You must submit the deviation report specified in \$60.5235(d) for each instance that one of the operating limits established under this subpart are not met .

- (c) The Facility must submit the annual compliance report specified in §60.5235(c) to demonstrate continuous compliance.
- (d) The Facility must confirm operating limits according to paragraph (d)(1) of this section or re-establish operating limits according to paragraph (d)(2) of this section. The operating limits must be established so as to assure ongoing compliance with the emission limits. These requirements also apply to the operating requirements in the fugitive emissions monitoring plan specified in §60.5170(d).
- (1) Your operating limits must be based on operating data recorded during any performance test required in \$60.5205(a) or any performance evaluation required in \$60.5205(b)(4).
- (2) You may conduct a repeat performance test at any time to establish new values for the operating limits to apply from that point forward.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 69: Compliance Certification** 

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5215, Subpart MMMM

### Item 69.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC



Item 69.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The facility owner or operator must conduct an annual inspection of each air pollution control device used to comply with their emission limits, according to \$60.5220(c). Each inspection must be conducted no later than 12 months following a previous annual air pollution control device inspection.

All necessary repairs must be completed within 10 operating days following an air pollution control device inspection unless the facility obtains written approval from the Department establishing an alternative date for the completion of repairs.

The facility owner or operator must maintain a record of each annual air pollution control device inspection. Each record must include a description of any repairs that were made to the air pollution control device, including the date each repair was completed, and a description of any repairs that were not completed within 10 days following the inspection. Records kept pursuant to this condition must be maintained at the facility for a period of at least five years, and must be made available to the Department upon request.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ANNUALLY (CALENDAR) Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 70:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5220, Subpart MMMM

### Item 70.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

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### Item 70.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

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

The Department must be notified at least 30 days in advance of any performance test conducted pursuant to 40 CFR 60 Subpart MMMM. Each such test shall be conducted pursuant to a Department approved testing protocol. The facility owner or operator must notify the Department at least 7 days in advance of any change or delay in the date of the performance test.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 71:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5225, Subpart MMMM

### Item 71.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

### Item 71.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The owner or operator of a Sewage Sludge Incinerator (SSI) must install, operate, calibrate, and maintain the continuous parameter monitoring systems according to the requirements in paragraphs (a)(1) and (a)(2) of this section, as applicable and in accordance with the



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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.

Monitoring Frequency: CONTINUOUS

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 72:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5230, Subpart MMMM

### Item 72.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

### Item 72.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The facility owner or operator must maintain the following operator training records in an easily accessible location at the facility at all times, as specified in §60.5230(c):

- (1) Documentation of the following operator training procedures and information:
- (i) A summary of the applicable standards under 40 CFR 60 Subpart MMMM;
- (ii) Procedures for receiving, handling, and feeding sewage sludge;
- (iii) Incinerator start up, shutdown, and malfunction preventative and corrective procedures;
- (iv) Procedures for maintaining proper combustion air supply levels;
- (v) Procedures for operating the incinerator and associated air pollution control devices within the standards established under 40 CFR 60 Subpart MMMM;
- (vi) Monitoring procedures for demonstrating compliance



with the incinerator operating limits;

- (vii) Reporting and record keeping procedures;
- (viii) Procedures for handling ash;
- (ix) A list of materials burned during the performance test, if in addition to sewage sludge; and
- (x) For each qualified operator and other plant personnel who may operate the unit according to the provisions of 40 CFR 60.5155(a), the phone and/or pager number at which they can be reached during operating hours.
- (2) Records showing the names of SSI unit operators and other plant personnel who may operate the SSI unit, as follows:
- (i) Records showing the names of SSI unit operators and other plant personnel who have completed review of the information described in paragraph (1) above, including the date of initial review and each subsequent review:
- (ii) Records showing the names of SSI unit operators who have completed the training described in 40 CFR 60.5130, met the criteria for qualification under 40 CFR 60.5140, and maintained or renewed their certification under 40 CFR 60.5145 or 60.5150. Such records must include documentation of training, including the date of initial qualification and all subsequent renewals of qualification.
- (3) Records showing the periods when no qualified operators were accessible for more than 8 hours, but less than 2 weeks, as required in §60.5155(a).
- (4) Records showing the periods when no qualified operators were accessible for 2 weeks or more along with copies of reports submitted as required in §60.5155(b).

Records kept pursuant to this condition must be made available to the Department upon request.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 1/30/2017. Subsequent reports are due every 6 calendar month(s).

Condition 73: Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021



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### Applicable Federal Requirement: 40CFR 60.5230, Subpart MMMM

### Item 73.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

### Item 73.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

> The facility owner or operator must maintain the following records in an easily accessible location at the facility, as applicable:

- (a) Calendar date of each record;
- (b) Copies of the facility's final control plan and any additional notifications submitted pursuant to 40 CFR 60.5235;
- (c) Documentation of the operator training procedures and records as specified in 40 CFR 63.5230(c);
- (d) Records of the results of initial and annual air pollution control device inspections conducted as specified in 40 CFR 60.5195 and 60.5220(c), including any required maintenance and any repairs not completed within 10 days of an inspection or the time frame established by the Department;
- (e) A record of each performance test, as specified in 40 CFR 60.5230(e);
- (f) Records of continuous monitoring data, where applicable, as specified in 40 CFR 60.5230(f);
- (g) Other records for continuous monitoring systems, where applicable, as specified in 40 CFR 60.5230(g);
- (h) Records of any deviation reports submitted under 40 CFR 60.5235(e) and (f);
- (i) Equipment specifications and related operation and maintenance requirements received from vendors for the incinerator, emission controls, and monitoring



equipment;

- (j) Records of inspections, calibration, and validation checks of any monitoring devices as required under 40 CFR 60.5220 and 60.5225;
- (k) Records of the monitoring plans required under 40 CFR 60.5200, and records of performance evaluations required under 40 CFR 60.5205(b)(5);
- (1) If the facility owner or operator elects to conduct performance tests less frequently than annually as described in 40 60.5205(a)(3), annual records that document that the facility's emissions in the two previous consecutive years were at or below 75 percent of the applicable emission limit in Table 1 or 2 of 40 CFR 60 Subpart MMMM, and document that there were no changes in source operations or air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past 2 years;
- (m) Records indicating use of the bypass stack, where applicable, including dates, times, and durations as required under 40 CFR 60.5225(d); and
- (n) If a malfunction occurs, a record of the information submitted in the facility's annual report in 40 CFR 60.5235(c)(16).

Records kept pursuant to this condition must be maintained at the facility for a period of at least five years and must be made available in either paper copy or computer-readable format that can be printed upon request by the Department.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 74:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5235, Subpart MMMM

### Item 74.1:

The Compliance Certification activity will be performed for the Facility.

### Item 74.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:



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

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 75:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:40CFR 60.5235(b), NSPS Subpart

### **MMMM**

### Item 75.1:

The Compliance Certification activity will be performed for the Facility.

#### Item 75.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The facility owner or operator must submit an initial compliance report containing the following information no later than 60 days following the initial performance test:

- (1) Company name, physical address, and mailing address.
- (2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
- (3) Date of report.
- (4) The complete test report for the initial performance test results obtained by using the test methods specified in Table 2 or Table 3 of 40 CFR 60 Subpart MMMM.
- (5) If an initial performance evaluation of a continuous monitoring system was conducted, the results of that initial performance evaluation.
- (6) The values for the site-specific operating limits established pursuant to 40 CFR 60.5170 and 60.5175 and the calculations and methods, as applicable, used to establish each operating limit.
- (7) If the facility is using a fabric filter to comply with the emission limits, documentation that a bag leak



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detection system has been installed and is being operated, calibrated, and maintained as required by 40 CFR 60.5170(b).

- (8) The results of the initial air pollution control device inspection required in 40 CFR 60.5195, including a description of repairs.
- (9) The site-specific monitoring plan required under 40 CFR 60.5200, at least 60 days before your initial performance evaluation of your continuous monitoring system.
- (10) The site-specific monitoring plan for your ash handling system required under 40 CFR 60.5200, at least 60 days before your initial performance test to demonstrate compliance with your fugitive ash emission limit.

Report submission form shall be in accordance with 40CFR60.5235(h). See Table 6 to this subpart for a summary of this report.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 76:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5235(c), NSPS Subpart

### **MMMM**

### Item 76.1

The Compliance Certification activity will be performed for the Facility.

### Item 76.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The owner or operator of a Sewage Sludge Incineration (SSI) unit must submit an annual compliance report to the Department in accordance with the requirements specified in 40CFR60.5235(c). Each such report shall contain the information listed in 40 CFR 60.5235(c)(1) through (c)(16), as applicable. The facility must submit their first annual compliance report no later than 12 months following the submission of the initial compliance report in paragraph (b) of this section. Subsequent annual compliance reports shall be submitted no more than 12 months following the previous annual compliance report.



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(You may be required to submit these reports (or additional compliance information) more frequently by the title V operating permit required in §60.5240.) Report submission form shall be in accordance with 40CFR60.5235(h). See Table 6 to this subpart for a summary of this report.

Monitoring Frequency: ANNUALLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 77:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.5235(d), NSPS Subpart

### **MMMM**

### Item 77.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

### Item 77.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The owner or operator of a Sewage Sludge Incineration (SSI) unit must submit a deviation report to the Department if:

- (i) Any recorded operating parameter level, based on the averaging time specified in Table 4 of 40 CFR 60 Subpart MMMM, is above the maximum operating limit or below the minimum operating limit;
- (ii) The bag leak detection system alarm sounds for more than 5 percent of the operating time for the 6-month reporting period;
- (iii) Any recorded 24-hour block average emissions level is above the emission limit, if a continuous monitoring system is used to comply with an emission limit;
- (iv) There are visible emissions of combustion ash from an



ash conveying system for more than 5 percent of the hourly observation period;

- (v) A performance test was conducted that deviated from any emission limit in Table 2 or Table 3 of 40 CFR 60 Subpart MMMM;
- (vi) A continuous monitoring system was out of control; or
- (vii) The facility had a malfunction that caused or may have caused any applicable emission limit to be exceeded.

Each deviation report prepared pursuant to this condition must contain the information specified in 40 CFR 60.5235(d)(3)(i) through(d)(3)(viii) for continuous monitoring systems used to comply with an associated emission limit or operating limit and/or 40 CFR 60.5235(d)(4)(i) through (d)(4)(viii) for each deviation where a continuous monitoring system is not used to comply with the associated emission limit or operating limit, as applicable.

Deviation reports must be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data collected during the second half of the calendar year (July 1 to December 31). Report submission form shall be in accordance with 40CFR60.5235(h). See Table 6 to this subpart for a summary of this report.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 32 days after the reporting period.
The initial report is due 2(1/2017)

The initial report is due 2/1/2017.

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

Condition 78: Applicability of General Provisions of 40 CFR 61 Subpart A Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 61, NESHAP Subpart A

### Item 78.1:

This Condition applies to:

Emission Unit: U00002

Process: INC



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Item 78.2: This emission source is subject to the applicable General Provisions of 40 CFR

**61.** The facility owner is responsible for reviewing these general provisions in detail and complying with all applicable technical, administrative and reporting requirements

**Condition 79:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 61, NESHAP Subpart C

### Item 79.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 007440-41-7 BERYLLIUM

### Item 79.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The sewage sludge incinerators at Bird Island STP are subject to the applicable requirements under 40 CFR 61, Subpart C - National Emission Standard for Beryllium, as it applies to the incineration of sewage sludge containing beryllium. The facility owner is responsible for reviewing this Subpart in detail and complying with all applicable requirements.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 80:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 61.32(a), NESHAP Subpart C

### Item 80.1:

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007440-41-7 BERYLLIUM

### Item 80.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

40CFR503.43(a) requires that the firing of sewage sludge in a sewage sludge incinerator shall not violate the requirements in the National Emission Standard for Beryllium in Subpart C of 40CFR Part 61, which applies to incinerators that process beryllium-containing waste.

In accordance with 40CFR61.32(a), emissions to the atmosphere from stationary sources subject to the provisions of this subpart shall not exceed 10 grams (0.022 lb) of beryllium over a 24-hour period. 40 CFR 61, Subpart C, National Emission Standards for Beryllium, states that samples shall be taken over such a period or periods as necessary to accurately determine the maximum emissions which will occur in a 24 hour period. The incinerators were originally stack tested to demonstrate compliance with the metals and impact assessment requirements under 40CFR503 in 1994. The results were very low for all metals of concern. The most recent stack test (June 17, 2014) of ES 0000E (INC 2) exhaust after control (scrubber outlet) showed an average concentration of Be of < 0.038 grams/24 hours, based on an average sludge concentration of <1.0 ug Be/g sludge (mg/kg), which is well below the limit of 10.0 grams/24 hours. Sampling and analysis for beryllium in the incinerator exhaust shall be conducted in accordance with 40CFR61.33 once per term of permit, whenever a modification or change is made to the process, or at the discretion of NYSDEC and/or USEPA.

Records of emission test results and other data needed to determine total emissions shall be retained at the source and made available, for inspection by the department or USEPA, for a minimum of 5 years. The annual 40CFR503 compliance report shall include information that indicates the requirements in the National Emission Standard for beryllium in Subpart C of 40 CFR 61 are met for that reporting period.

Parameter Monitored: BERYLLIUM Upper Permit Limit: 10 grams per day

Reference Test Method: 29

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION
Averaging Method: 24-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.



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

**Condition 81: Compliance Certification** 

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 61, NESHAP Subpart E

### Item 81.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 007439-97-6 MERCURY

#### Item 81.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The sewage sludge incinerators at Bird Island STP are subject to the applicable requirements under 40 CFR 61, Subpart E - National Emission Standard for Mercury, as it applies to the incineration of sewage sludge containing mercury. The facility owner is responsible for reviewing this Subpart in detail and complying with all applicable requirements.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 82:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 61.52(b), NESHAP Subpart E

### Item 82.1:

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007439-97-6 MERCURY

### Item 82.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL

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#### DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

40CFR503.43(b) requires that the firing of sewage sludge in a sewage sludge incinerator shall not violate the requirements in the National Emission Standard for Mercury in Subpart E of 40 CFR Part 61, which applies to the incineration or drying of sludge produced by a treatment plant that processes municipal or industrial waste waters.

In accordance with 40CFR61.52(b) emissions to the atmosphere from sludge incineration plants, sludge drying plants, or a combination of these that process wastewater treatment plant sludge shall not exceed 3.2 kg (7.1 lb) of mercury per 24-hour period (3200 g Hg/24-hr period). The April 1994 stack test performed to demonstrate compliance with this limit resulted in mercury emissions of 32.6 grams/ 24 hour period. During 2013-2014, ES 0000E (INC 2) was rehabilitated and associated control equipment replaced to comply with 40CFR60, Subpart MMMM requirements. The mercury emissions at the outlet of the scrubber associated with ES 0000E (INC 2) were reevaluated during a June 17, 2014 performance test. Based on an average sludge concentration of 0.72 ug Hg/g sludge (mg/kg), stack test results showed an average emission rate of 36.1 grams Hg/24 hours, which is well below the limit of 3200 grams Hg/24 hours. Sampling and analysis for mercury in the incinerator exhaust shall be conducted in accordance with 40CFR61.53(d) once per term of permit, whenever a modification or change is made to the process, or at the discretion of NYSDEC and/or USEPA.

Records of emission test results and other data needed to determine total emissions shall be retained at the source and made available, for inspection by the department or USEPA, for a minimum of 5 years. The annual 40 CFR 503 compliance report shall include information that indicates the requirements in the National Emission Standard for mercury in Subpart E of 40 CFR 61 are met for that reporting period.

Parameter Monitored: MERCURY Upper Permit Limit: 3200 grams per day Reference Test Method: 29 or 101A

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: 24-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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



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**Condition 83:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:40 CFR Part 64

#### Item 83.1:

The Compliance Certification activity will be performed for the facility: The Compliance Certification applies to:

Emission Unit: U-00002

Process: ASH

Emission Unit: U-00002

Process: INC

### Item 83.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

A compliance assurance monitoring (CAM) plan, dated December 19, 2005, identifies current monitoring and additional monitoring to address the requirements of 40 CFR Part 64, CAM, for the sludge incinerators. Currently, BSA monitors scrubber differential pressure, opacity, oxygen content, afterburner/Zero Hearth temperature, incinerator hearth temperatures and incinerator draft. There are specific conditions for each listed in the permit to assure proper operation of the incinerator and control equipment. In addition, BSA will continuously monitor liquid flow rate to each scrubber and maintain the flow between the alarm and design flow rate. BSA will calibrate, operate, and maintain the flow rate instruments in accordance with the manufacturer's recommendations. BSA will also operate and maintain all pumps in accordance with manufacturer's specifications. Identified in the plan are instrument tags, description, design flow rate and low alarm rate. The details of the additional flow monitoring in the CAM plan dated December 19, 2005 is incorporated into this permit by reference. The CAM Plan shall be updated, as necessary, when changes/updates in equipment, operations, monitoring, requirements, etc. occur. The CAM plan shall be submitted to NYSDEC within 30 days of revision.

Flow rates below the low alarm rates for more than 15 minutes shall be considered excursions. Notification to the department is required by phone or e-mail within 3 days. Excursions not corrected within the same day must be followed up by letter with details of corrections within 30 days of the incident. Excursions that lead to possible exceedance of the opacity or particulate limit, as



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specified elsewhere in the permit, must be addressed immediately by stopping sludge feed to the incinerator, following appropriate burn out procedures. A letter detailing the problem and resolution must be submitted to the department within 30 days of the incident. Exceedances must be addressed in the semi and annual reports. All notifications and reports must be addressed to the Region 9 Regional Air Pollution Control Engineer or appropriate representative.

Monitoring Frequency: CONTINUOUS

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

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

**Condition 84:** Emission Point Definition By Emission Unit

Effective between the dates of 09/09/2016 and 09/08/2021

### Applicable Federal Requirement: 6 NYCRR Subpart 201-6

### Item 84.1:

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

Emission Unit: U-00002

Emission Point: 000CA

Height (ft.): 71 Diameter (in.): 42

NYTMN (km.): 4759.437 NYTME (km.): 181.42 Building: MEB

Emission Point: 000CB

Height (ft.): 71 Diameter (in.): 42

NYTMN (km.): 4759.436 NYTME (km.): 181.413 Building: MEB

Emission Point: 000CC

Height (ft.): 71 Diameter (in.): 42

NYTMN (km.): 4759.436 NYTME (km.): 181.407 Building: MEB

Emission Point: 0INC1

Height (ft.): 96 Diameter (in.): 73

NYTMN (km.): 4759.435 NYTME (km.): 181.401 Building: MEB

Emission Point: 0INC2

Height (ft.): 96 Diameter (in.): 73

NYTMN (km.): 4759.435 NYTME (km.): 181.394 Building: MEB

Emission Point: 0INC3

Height (ft.): 96 Diameter (in.): 73

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NYTMN (km.): 4759.434 NYTME (km.): 181.388 Building: MEB

Emission Point: ASHHA

Height (ft.): 96 Diameter (in.): 73 NYTMN (km.): 4759.43 NYTME (km.): 181.371

### Item 84.2:

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

Emission Unit: U-00003

Emission Point: 00SD3

Height (ft.): 3 Diameter (in.): 6

NYTMN (km.): 4759.688 NYTME (km.): 181.392 Building: SDR

Emission Point: 00SD4

Height (ft.): 3 Diameter (in.): 6

NYTMN (km.): 4759.682 NYTME (km.): 181.394 Building: SDR

**Condition 85:** Process Definition By Emission Unit

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 6 NYCRR Subpart 201-6

### Item 85.1:

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

Emission Unit: U-00002

Process: ASH Source Classification Code: 5-03-005-15

Process Description:

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.

Emission Source/Control: COND1 - Control Control Type: WATER MIST/SPRAY

Emission Source/Control: COND2 - Control Control Type: WATER MIST/SPRAY

Emission Source/Control: SPRTW - Control

Control Type: SPRAY TOWER

Emission Source/Control: VSCRB - Control Control Type: VENTURI SCRUBBER

Emission Source/Control: ASHHO - Process

Design Capacity: 4,000 cubic feet per minute (standard conditions)

Emission Source/Control: ASHL1 - Process

Design Capacity: 30 tons per hour

Emission Source/Control: ASHL2 - Process

Design Capacity: 30 tons per hour

### Item 85.2:

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

Emission Unit: U-00002

Process: BOI Source Classification Code: 1-03-006-02

Process Description:

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.

Emission Source/Control: 00001 - Combustion Design Capacity: 51.4 million Btu per hour

Emission Source/Control: 00005 - Combustion Design Capacity: 51.4 million Btu per hour

Emission Source/Control: 00009 - Combustion



Design Capacity: 51.4 million Btu per hour

Emission Source/Control: 00004 - Control

Control Type: LOW NOX BURNERS, FLUE GAS

RECIRCULATION

Emission Source/Control: 00008 - Control

Control Type: LOW NOX BURNERS, FLUE GAS

RECIRCULATION

Emission Source/Control: 0000C - Control Control Type: LOW NOX BURNERS, FLUE GAS

RECIRCULATION

#### Item 85.3:

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

Emission Unit: U-00002

Process: INC Source Classification Code: 3-90-006-99

**Process Description:** 

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 associated with emission points INC 1, INC 2, and INC 3, which are the ducts that exhaust into the MAIN 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.

Emission Source/Control: IMPPL - Control

Control Type: IMPINGEMENT PLATE SCRUBBER

Emission Source/Control: MMSC2 - Control Control Type: VENTURI SCRUBBER

Emission Source/Control: PCLR2 - Control

Control Type: QUENCH UNIT

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Emission Source/Control: THAFT - Control Control Type: DIRECT FLAME AFTERBURNER

Emission Source/Control: VENSC - Control Control Type: VENTURI SCRUBBER

Emission Source/Control: ZERO2 - Control Control Type: THERMAL OXIDATION

Emission Source/Control: 0000D - Incinerator

Design Capacity: 40 tons per day Waste Feed Method: CHUTE FED Waste Type: SEWAGE SLUDGE

Emission Source/Control: 0000E - Incinerator

Design Capacity: 61.92 tons per day Waste Feed Method: CHUTE FED Waste Type: SEWAGE SLUDGE

Emission Source/Control: 0000F - Incinerator

Design Capacity: 60 tons per day Waste Feed Method: CHUTE FED Waste Type: SEWAGE SLUDGE

### Item 85.4:

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

Emission Unit: U-00003

Process: SDI Source Classification Code: 5-01-007-89

Process Description:

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 Source/Control: FLAR3 - Control

Control Type: FLARING

Emission Source/Control: FLAR4 - Control



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Control Type: FLARING

Emission Source/Control: SDIII - Process

**Condition 86:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 6 NYCRR 212-1.6 (a)

Item 86.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00002 Emission Point: 0INC1

Emission Unit: U-00002 Emission Point: 0INC2

Emission Unit: U-00002 Emission Point: 0INC3

Emission Unit: U-00002 Emission Point: ASHHA

Item 86.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL

DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

No facility owner or operator shall 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.

Parameter Monitored: OPACITY Upper Permit Limit: 20 percent Reference Test Method: Method 9

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

**DESCRIPTION** 

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 87: Compliance Certification** 

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:6 NYCRR 227-2.4 (c) (1) (ii)

Item 87.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00002

Process: BOI



Regulated Contaminant(s):

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

### Item 87.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description:

BSA's potential to emit oxides of nitrogen (NOx) exceeds the major source threshold of 100 tpy. Therefore, the facility is subject to the RACT requirements for NOx specified under 6NYCRR227-2. BSA operates three mid-size boilers as defined in 6NYCRR227-2.2. These boilers, identified as ES 00001 (Boiler #1), ES 00005 (Boiler #2) and ES 00009 (Boiler #3) in the Title V permit each have a maximum design capacity of 51.4 mmbtu/hr and are capable of burning either natural gas or biogas derived from the anaerobic digestion of sewage sludge.

In accordance with 6NYCRR227-2.4(c)(1)(ii), the owner or operator of a mid-size boiler must comply with the relevant presumptive RACT emission limit of 0.05 pounds NOx per million BTU on or after July 1, 2014. BSA installed low NOx burners to meet the previous NOx RACT limit. The low NOx burner in Boiler #1 was replaced during 2015 to meet the latest NOx RACT limit. This burner is capable of firing natural gas or digester gas. NOx emissions from Boiler #1 were tested on February 23, 2016 to determine compliance with the presumptive RACT emission limit for NOx specified in 6NYCRR227-2 while firing natural gas and digester gas. The test results, received on April 14, 2016, verified compliance with the NOx RACT limit at 0.034 pound NOx/mmBTU while firing digester gas and 0.031 pound NOx/mmBTU, while firing natural gas. A stack test conducted in June 2013 to determine compliance with the NOx RACT limit showed that NOx emissions from Boiler #2 while firing either natural gas or biogas were below the limit of 0.05 lb/MMBTU. Stack tests conducted in June 2013 and June 2014 showed that NOx emissions from Boiler #3 were in compliance with the limit while firing biogas, but failed to show compliance while firing natural gas during both stack tests. A subsequent stack test conducted February 2016 on Boiler #3 emissions while firing natural gas did not confirm compliance with the 0.05 lb/MMBTU NOx RACT limit. Considering this, BSA is prohibited from firing Boiler # 3 on natural gas until compliance is verified. Compliance with this emission limit must be determined with a one hour average in accordance with emission test requirements described in subdivision 6NYCRR 227-2.6(c) Emission test requirements. A performance test to verify compliance with the NOx limit shall be conducted once per term of permit for each



operating boiler. During the 2015 Boiler Project BSA also installed Autoflame exhaust gas analyzers to monitor combustion and boiler efficiency.

BSA shall conduct routine and preventative maintenance in accordance with good engineering practice and manufacturer's specifications and recommendation, but at a minimum periodic maintenance shall be conducted semiannually. BSA shall maintain records, including but not limited to, logs, repair receipts, manufacturers operation and maintenance manuals, work orders, parts and supplies purchases and any other documentation to verify that the boilers/burners are maintained properly to ensure compliance with the presumptive NOx RACT limit. Records of burner/boiler malfunctions and the corrective action taken must be maintained. All records shall be maintained onsite for a minimum of 5 years and shall be available for NYSDEC and/or EPA review upon request.

Parameter Monitored: OXIDES OF NITROGEN Upper Permit Limit: 0.05 pounds per million Btus

Reference Test Method: Method 7, 7E, or 19 from 40 CFR part 60, app A Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 88:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60, NSPS Subpart O

### Item 88.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00002

Process: INC

### Item 88.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

BSA operates multiple hearth incinerators that combust sewage sludge, supplemented by biogas or natural gas. The sewage sludge incinerators at BSA became operational approximately June of 1980. Therefore, each sewage sludge incinerator is an affected facility subject to the requirements of 40 CFR 60 Subpart O - Standards of



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Performance for Sewage Treatment Plants. BSA is responsible for complying with all applicable technical, administrative and reporting requirements specified in 40 CFR 60 Subpart O and in this Air Title V permit. The approved operating conditions under which emissions were in compliance during the performance test must be maintained whenever the incinerator is operating. These conditions shall be equivalent to the operating conditions established during the performance test conducted to demonstrate compliance with any other requirements, as applicable. BSA shall conduct a performance test to verify compliance with 40CFR60 Subpart O requirements once per term of permit.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 89: Compliance Certification** 

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:40CFR 60.152(a)(1), NSPS Subpart O

### Item 89.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

### Item 89.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator of any sewage sludge incinerator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere of particulate matter at a rate in excess of 0.65 g/kg dry sludge input (1.30 lb/ton dry sludge input).

Section 60.152(a) requires a stack test to determine compliance with the 1.30 lb of particulate/ ton dry sludge emission standard and to establish operating and monitoring parameters. The most recent stack test witnessed by the New York State Department of Environmental Conservation was performed June 17, 2014 on



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the post control exhaust from newly rehabilitated INC 2 in the interior duct prior to discharge to the MAIN Stack. Results showed an average filterable particulate matter emission rate of 0.21 pounds per dry ton of biosolids input (lb/dry ton), while operating at an average feed rate of 2.58 dry tons per hour (61.92 dry tons per day). This is well below the emission standard of 1.3 lb/dry ton and also below the maximum particulate emission rate of 0.75 lb/dry ton specified in 60.153(d), above which BSA would be required to comply with the continuous monitoring and recording requirements specified in §60.153 (a)(1), (b)(3) and (b)(4), daily sampling and analysis of sludge feed specified in §60.153(b)(5) and record keeping specified in §60.153(c)(3). Operating parameters such as sludge feed rate, afterburner temperature, hearth temperatures, scrubber pressure, sieve and scrubber water flow established during the latest stack test are used as surrogate monitoring parameters for determining compliance with the particulate limit. If similar monitoring is required for other applicable requirements, the most restrictive operating limit will apply.

The stack testing for particulates and monitoring of operating parameters for the sewage sludge incinerators shall satisfy the requirements of 40 CFR Part 64, Compliance Assurance Monitoring (CAM). Deviations from established monitoring parameters shall be reported semiannually.

To verify continued compliance with the particulate matter emission standard in §60.152, BSA shall conduct test methods and sampling procedures as specified in 40CFR 60.154 once per term of permit. Protocols are due 30 days before the scheduled test. Stack test reports are due within 60 days of testing. All records pertaining to this requirement shall be maintained onsite and shall be readily available for review by the department and/or USEPA upon request.

Parameter Monitored: PARTICULATES Upper Permit Limit: 1.30 pounds per ton

Reference Test Method: 40 CFR Reference Method 5

Monitoring Frequency: ONCE DURING THE TERM OF THE PERMIT

Averaging Method: 1-HOUR AVERAGE

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 90:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021



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### Applicable Federal Requirement: 40CFR 60.152(a)(2), NSPS Subpart O

### Item 90.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 0NY075-00-0 **PARTICULATES** 

### Item 90.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

Sewage Sludge Incinerators shall not discharge or cause the discharge into the atmosphere of any gases which exhibit 20 percent opacity or greater.

- 1) The operators will check opacity at least once per shift, during daylight hours except during conditions of extreme weather (fog, snow, rain). Visible emissions do not include steam plumes.
- 2) Record in a bound log book or online operations log, the results of the visual observation- was there visible emissions observed- yes or no, including explanations for days when weather conditions prohibit such observations of visible emissions, and
- 3) maintain the data in this log book for five years.

If the operator is not currently a certified Method 9 visible emissions evaluator and he/she observes any visible emissions (> 0%), other than steam, a Method 9 analysis of the affected emission point(s) shall be conducted within 2 business days of the occurrence. The operator must contact the Region 9 Air Pollution Control Engineer within one business day of performing a Method 9 analysis, during normal business hours (8:30 am to 4:45 pm), if the analysis shows an exceedence of the required standards for opacity. Upon notification any corrective actions or future compliance schedules shall be presented to the Region for acceptance. All records must be maintained onsite for a minimum of 5 years.

Parameter Monitored: OPACITY Upper Permit Limit: 20 percent Reference Test Method: EPA Method 9

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

DESCRIPTION



Averaging Method: 6-MINUTE AVERAGE (METHOD 9) Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 91:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 40CFR 60.153(a)(1), NSPS Subpart O

### Item 91.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00002

Process: INC

### Item 91.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The owner or operator of any sludge incinerator subject to the provisions of this subpart shall install, calibrate, maintain, and operate a flow measuring device which can be used to determine either the mass or volume of sludge charged to the incinerator. The flow measuring device shall be certified by the manufacturer to have an accuracy of ±5 percent over its operating range.

BSA conducted a performance test on June 17, 2014 to determine compliance with 40CFR60 Subpart O requirements for the newly reconstructed multiple hearth incinerator, ES 0000E (ES INC 2). Stack test results showed compliance with the particulate limit specified in Subpart O at a sludge feed rate of 2.58 dry tons per hour or 61.92 dry tons per day. The flow measuring device shall be operated continuously and data recorded during all periods of operation of the incinerator. Records shall be maintained onsite for a minimum of 5 years and shall be available for NYSDEC or EPA review upon request.

Monitoring Frequency: CONTINUOUS

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 92:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:40CFR 60.153(b)(1), NSPS Subpart O



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#### Item 92.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 0NY075-00-0 **PARTICULATES** 

#### Item 92.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

> The owner or operator of any multiple hearth, fluidized bed, or electric sludge incinerator subject to the provisions of this subpart shall comply with the requirements of paragraph (a) of this section and: For incinerators equipped with a wet scrubbing device, 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. Where a combination of wet scrubbers is used in series, the pressure drop of the gas flow through the combined system shall be continuously monitored. The device used to monitor scrubber pressure drop shall be certified by the manufacturer to be accurate within ±250 pascals (±1 inch water gauge) and shall be calibrated on an annual basis in accordance with the manufacturer's instructions.

> In accordance with 40CFR60.155, the operator shall submit to the USEPA Administrator and Regional NYSDEC office semiannually a report that contains the following: For incinerators that achieved an average particulate matter emission rate of 0.75 lb/ton dry sludge input or less during the most recent performance test a report of average scrubber pressure drop measurements for each period of 15 minutes duration or more during which the pressure drop of the scrubber was less than 30 percent from the average scrubber pressure drop measured during the recent performance test.

The results from the most recent performance test conducted on the exhaust from ES 0000E (INC 2) on June 17, 2014 showed an average total scrubber pressure drop of 29.2 inches of water, resulting in an average filterable particulate emission rate of 0.21 lb/dry ton of biosolids. Based on these results, the lower limit for pressure drop through the wet scrubbing system is 20.4 inches of water. BSA must report semiannually the average pressure drop that is less than this limit for each period of 15 minutes



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duration or more. All records pertaining to this requirement shall be maintained onsite for a minimum of 5 years and shall be readily accessible upon request by NYSDEC and/or USEPA representatives.

Monitoring Frequency: CONTINUOUS

Averaging Method: AVERAGING METHOD - SEE MONITORING

**DESCRIPTION** 

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 93:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:40CFR 60.153(b)(2), NSPS Subpart O

#### Item 93.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

#### Item 93.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The owner or operator of any multiple hearth, fluidized bed, or electric sludge incinerator subject to the provisions of this subpart shall comply with the requirements of paragraph (a) of this section and:

Install, calibrate, maintain and operate a monitoring device that continuously measures and records the oxygen content of the incinerator exhaust gas. The oxygen monitor shall be located 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. The oxygen monitoring device shall be certified by the manufacturer to have a relative accuracy of  $\pm 5$  percent over its operating range and shall be calibrated according to method(s) prescribed by the manufacturer at least once each 24-hour operating period.

In accordance with 40CFR60.155, the operator shall submit



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to the USEPA Administrator and NYSDEC Regional office semiannually a report in writing which contains the following:

A record of average oxygen content in the incinerator exhaust gas for each period of 1-hour duration or more that the oxygen content of the incinerator exhaust gas exceeds the average oxygen content measured during the recent performance test by more than 3 percent. The results from the performance test conducted on the exhaust from ES 0000E (INC 2) on June 17, 2014 showed an average of 5.11 percent oxygen (wet), measured at Hearth #3. The upper limit of 8.11 percent oxygen (wet) specified below includes a 3 percent increase in oxygen content. All records pertaining to this requirement shall be maintained onsite for a minimum of 5 years and shall be readily accessible upon request by NYSDEC and/or USEPA representatives.

Parameter Monitored: OXYGEN CONTENT

Upper Permit Limit: 8.11 percent Monitoring Frequency: CONTINUOUS

Averaging Method: 1 HOUR MAXIMUM - NOT TO BE EXCEEDED AT

**ANY TIME** 

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 94:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:40CFR 60.153(b)(3), NSPS Subpart O

#### Item 94.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

#### Item 94.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The owner or operator of any multiple hearth incinerator subject to the provisions of this subpart shall comply with the requirements of paragraph (a) of this section and install, calibrate, maintain and operate temperature measuring devices at every hearth in multiple hearth furnaces. A minimum of one thermocouple shall be installed



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in each hearth in the cooling and drying zones, and a minimum of two thermocouples shall be installed in each hearth in the combustion zone. Each temperature measuring device shall be certified by the manufacturer to have an accuracy of  $\pm 5$  percent over its operating range. Except as provided in paragraph (d) of this section, the temperature monitoring devices shall be operated continuously and data recorded during all periods of operation of the incinerator.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 95:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:40CFR 60.153(b)(4), NSPS Subpart O

#### Item 95.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

#### Item 95.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

The owner or operator of any multiple hearth incinerator subject to the provisions of this subpart shall comply with the requirements of paragraph (a) of this section and shall install, calibrate, maintain and operate a device for measuring the fuel flow to the incinerator. The flow measuring device shall be certified by the manufacturer to have an accuracy of  $\pm 5$  percent over its operating range. Except as provided in paragraph (d) of the section, the fuel flow measuring device shall be operated continuously and data recorded during all periods of operation of the incinerator.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period.

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The initial report is due 1/30/2017. Subsequent reports are due every 6 calendar month(s).

**Condition 96:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement:40CFR 60.155(a)(1)(ii), NSPS Subpart

O

#### Item 96.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

#### Item 96.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Recent stack tests have shown that the particulate matter (PM) emission rate from the multiple hearth incinerators owned and operated by BSA has been less than 0.75 lb/ton dry sludge input. BSA must comply with this requirement only if a stack test shows that the PM emission rate exceeds 0.75 lb/ton dry sludge input.

Monitoring Frequency: CONTINUOUS

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 97:** Compliance Certification

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable Federal Requirement: 6 NYCRR 227-2.4 (g)

#### Item 97.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00003

Process: SDI

Regulated Contaminant(s):

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

#### Item 97.2:

Compliance Certification shall include the following monitoring:



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

Monitoring Description:

The owner or operator of a major facility of NOx that contains an emission source that is not specifically addressed in this Subpart and is of an emission source type not regulated under Part 212, 214, 216, 219, 220, or 224 of this Title and which has an emission rate potential of at least 3 pounds per hour and actual emissions in the absence of control equipment of at least 15 pounds per day must comply with the case-by-case RACT determination made pursuant to this subdivision. The owner or operator must submit a proposal for RACT to be implemented that includes descriptions of:

- (1) the available NOx control technologies, the projected effectiveness of the technologies considered, and the costs for installation and operation for each of the technologies;
- (2) the technology and the appropriate emission limit selected as RACT considering the costs for installation and operation of the technology; and
- (3) testing, monitoring, and reporting procedures.

BSA uses two flares, identified as ESC FLAR3 and ESC FLAR4, to burn off excess methane gas generated by the digester tanks (ES SDIII) that are classified as " other combustion sources" and regulated under this section. The methane gas can also be stored and used as a fuel in the incinerator and auxiliary boilers. The flares shall be properly maintained and operated when methane is not being directed elsewhere or stored. Continuous igniters are used to maintain flame in the flare. If the flame goes out and the igniter malfunctions, the gas must be shut off and directed to the other flare or stored. If the flame cannot be sustained because the methane content of the biogas is too low, the flares may only be operated if the biogas is supplemented with natural gas or propane ensuring a continuous flame at sufficient temperature to ensure good combustion. The condition of the flare and igniter will be checked once per shift when operating. Records of operation, inspections, malfunctions, maintenance and repairs shall be maintained on site.

Process Material: SEWAGE GAS

Parameter Monitored: TEMPERATURE CHANGE Lower Permit Limit: 500 degrees Fahrenheit

Monitoring Frequency: PER SHIFT

Averaging Method: 15-MINUTE ROLLING AVERAGE Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.



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



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# STATE ONLY ENFORCEABLE CONDITIONS \*\*\*\* Facility Level \*\*\*\*

#### NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

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

#### Item A: 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: 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

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

#### STATE ONLY APPLICABLE REQUIREMENTS

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

**Condition 98:** Contaminant List

permit.

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable State Requirement: ECL 19-0301

### Item 98.1:

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

CAS No: 000630-08-0

Name: CARBON MONOXIDE

CAS No: 001746-01-6

Name: 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN

CAS No: 007439-92-1

Name: LEAD

CAS No: 007439-97-6 Name: MERCURY

CAS No: 007440-02-0

Name: NICKEL METAL AND INSOLUBLE COMPOUNDS

CAS No: 007440-38-2 Name: ARSENIC

CAS No: 007440-41-7 Name: BERYLLIUM



CAS No: 007440-43-9 Name: CADMIUM

CAS No: 007440-47-3 Name: CHROMIUM

CAS No: 007446-09-5 Name: SULFUR DIOXIDE

CAS No: 007647-01-0

Name: HYDROGEN CHLORIDE

CAS No: 018540-29-9 Name: CHROMIUM(VI)

CAS No: 0NY075-00-0 Name: PARTICULATES

CAS No: 0NY210-00-0

Name: OXIDES OF NITROGEN

CAS No: 0NY998-00-0

Name: VOC

Condition 99: Malfunctions and start-up/shutdown activities

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable State Requirement: 6 NYCRR 201-1.4

#### Item 99.1:

- (a) The facility owner or operator shall take all necessary and appropriate actions to prevent the emission of air pollutants that result in contravention of any applicable emission standard during periods of start-up, shutdown, or malfunction.
- (b) The facility owner or operator shall compile and maintain records of all equipment malfunctions, maintenance, or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the department when requested to do so, or when so required by a condition of a permit issued for the corresponding air contamination source. Such reports shall state whether any violations occurred and, if so, whether they were unavoidable, include the time, frequency and duration of the maintenance and/or start-up/shutdown activities, and an estimate of the emission rates of any air contaminants released. Such records shall be maintained for a period of at least five years and made available for review to department representatives upon request. Facility owners or operators subject to continuous stack monitoring and quarterly reporting requirements need not submit additional reports for equipment maintenance or start-up/shutdown activities for the facility to the department.
- (c) In the event that emissions of air contaminants in excess of any emission standard in this Subchapter occur due to a malfunction, the facility owner or operator shall compile and maintain records of the malfunction and notify the department as soon as possible during normal working



hours, but not later than two working days after becoming aware that the malfunction occurred. When requested by the department, the facility owner or operator shall submit a written report to the department describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates.

- (d) The department may also require the owner or operator to include, in reports described under Subdivisions (b) and (c) of this Section, an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions.
- (e) A violation of any applicable emission standard resulting from start-up, shutdown, or malfunction conditions at a permitted or registered facility may not be subject to an enforcement action by the department and/or penalty if the department determines, in its sole discretion, that such a violation was unavoidable. The actions and recordkeeping and reporting requirements listed above must be adhered to in such circumstances.

**Condition 100:** Compliance Demonstration

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable State Requirement: 6 NYCRR 212-2.1

#### Item 100.1:

The Compliance Demonstration activity will be performed for the Facility.

#### Item 100.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

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 (as defined in §212-1.2(b)(9)), of this Part, 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 Part 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



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Contaminants, or Subdivision 212-2.3(b), Table 4 - Degree of Air Cleaning Required for Non-Criteria Air Contaminants, as applicable, for the environmental rating assigned to the contaminant by the department.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 101:** Compliance Demonstration

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable State Requirement: 6 NYCRR 212-2.1 (a)

#### Item 101.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007440-38-2 ARSENIC

#### Item 101.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

BSA currently owns and operates three sewage sludge incinerators (SSIs), which include INC 1 (ES 0000D), INC 2 (ES 0000E) and INC 3 (ES 0000F). One of the contaminants released to the ambient air from the sewage sludge incinerators (SSI) is arsenic (As), a high toxicity air contaminant (HTAC) listed in §212-2.2 Table 2 (Table 2). The department has assigned an environmental rating of "A" to arsenic. There's no applicable persistent and bioaccumulative (PB) trigger for arsenic. BSA conducted a performance test for INC 2 on June 17, 2014 at a maximum average sludge feed rate of 2.58 dry tons per hour and an average concentration of 6.0 mg As/kg sludge to determine compliance with 40CFR503 requirements. This test was conducted post control in the ductwork leading into the MAIN Stack. Test results showed an emission rate potential (ERP) and actual emission rate (ER) for arsenic of 3.09E-02 lb/hr and 3.71E-04 lb/hr, respectively. Based on these results and Table 2, the maximum emission limit (MEL) for As is exceeded after INC 2 has operated 2695 hours each year. Therefore, BSA must demonstrate compliance with §212-2.3(b), Table 4 (Table 4) requirements. For a contaminant with an ERP less than 0.1 lb/hr, Table 4 requires the use of an acceptable air dispersion model to demonstrate that the maximum ambient air concentration of the contaminant meets NYSDEC's annual and short term guideline concentrations (AGC/SGC) at the fence line of the facility, as applicable. Since there is



no SGC for arsenic, BSA shall demonstrate that the maximum ambient air concentration of arsenic from process operations at BSA meets NYSDEC's AGC at the fence line of the facility.

To demonstrate compliance with Table 4, BSA shall prepare an air quality modeling protocol for the dispersion of arsenic, which is generated by the incineration of sewage sludge in INC 2, then emitted to the ambient air from the MAIN Stack located in the Main Equipment Building. The protocol, which will describe the procedures to be used to predict the maximum offsite ambient air concentration of arsenic, shall be submitted to NYSDEC for review and approval. The department requires the use of an EPA approved air dispersion model for all screening and/or refined air dispersion modeling assessments. After the protocol is accepted by the department, BSA shall conduct the assessment and submit a final report, with the air dispersion modeling results, a complete description of the air dispersion model, the values used for the model parameters and any other pertinent information that supports modeling results. If an initial screening assessment shows that the offsite ambient concentration of As is less than the AGC, then BSA does not need to submit a modeling protocol, only the final report as described above. Compliance with §212-2.3(b) must be demonstrated within one year of the issuance of this title V permit renewal. Subsequent compliance demonstrations may be necessary if process operations change or test results show a potential problem.

If the results show that the maximum offsite ambient air concentration of arsenic meets the AGC, then compliance with 6NYCRR212 will have been demonstrated. In that case, BSA will be required to monitor arsenic emissions in a manner acceptable to the department to verify that the facility continues to meet the AGC for arsenic each calendar year. If the modeling results show that the maximum offsite ambient air concentration of arsenic does not meet NYSDEC's AGC for arsenic, 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.

If INC 1 and INC 3 and associated control equipment are rehabilitated and demonstrate compliance with 40CFR60, Subpart MMMM, arsenic emissions must be evaluated to include all process emissions of this contaminant. All records associated with the requirements specified above shall be maintained on site for at least 5 years and shall be readily available for NYSDEC review upon request.



Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 102:** Compliance Demonstration

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable State Requirement: 6 NYCRR 212-2.1 (a)

#### Item 102.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007439-97-6 MERCURY

#### Item 102.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description:

BSA currently owns and operates three sewage sludge incinerators (SSIs), which include INC 1 (ES 0000D), INC 2 (ES 0000E) and INC 3 (ES 0000F). One of the contaminants released to the ambient air from the sewage sludge incinerators (SSI) is mercury (Hg), a high toxicity air contaminant (HTAC) listed in §212-2.2 Table 2 (Table 2). The department has assigned an environmental rating of "A" to mercury, which is also a contaminant that has an applicable persistent and bioaccumulative (PB) trigger.

BSA conducted a performance test on the exhaust from INC 2 on June 17, 2014 to verify compliance with 40CFR61, Subpart E requirements. This test was conducted post control in the duct work leading into the Main Stack. The average sludge feed rate during that test was 2.58 dry tons per hour (maximum operating capacity) and the average concentration of Hg in the sludge was 0.71 mg/kg. The test results showed an emission rate potential (ERP) of 3.73E-03 lb Hg/hr and an actual emission rate (ER) of 3.27E-03 lb Hg/hr for INC 2, indicating no removal of Hg. Based on these results, after 1590 operating hours per year the actual annual emission rate of Hg from INC 2 exceeds the mass emission limit (MEL) of 5 pounds Hg per year listed in Table 2. The performance test showed an average concentration of 36.1 grams Hg per 24 hours, which complies with the 3200 grams Hg per 24 hour limit specified in 40CFR61, Subpart E.



In accordance with 6NYCRR212-1.5(e)(2), since mercury is a high toxicity air contaminant, 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. To comply with 6NYCRR212 requirements, 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). BSA must also show that total annual mercury emissions are less than the PB trigger. To satisfy the requirement for a TIA, BSA shall submit a protocol for the dispersion of Hg generated by the incineration of sewage sludge in INC 2 and emitted from the MAIN Stack, located at the Main Equipment Building. The department requires the use of an EPA approved air dispersion model for all screening and/or refined air dispersion modeling assessments. After the protocol is accepted by the department, BSA shall conduct the TIA and submit a final report, with the air dispersion modeling results, a complete description of the air dispersion model and values used for the model parameters, calculation of total annual mercury emissions, a comparison to mercury's PB trigger and any other pertinent information that supports the modeling results. If an initial screening assessment shows that the offsite ambient concentration of Hg is less than the AGC and SGC, then BSA does not need to submit a modeling protocol for the TIA, only the final report as described above. The TIA must be conducted and results submitted within one year of the issuance of the title V permit renewal.

If the TIA shows that the maximum offsite ambient air concentration of mercury meets the AGC and SGC and the annual Hg emissions are less than its PB trigger, then compliance with 2NYCRR212 will have been demonstrated. In that case, BSA will be required to monitor mercury emissions in a manner acceptable to the department to verify that the facility continues to meet the AGC, SGC and PB trigger each calendar year. If the TIA shows that the maximum offsite ambient air concentration of mercury does not meet the AGC and SGC or annual emissions are not less than the PB trigger, 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.

If INC 1 and INC 3 and associated control equipment are rehabilitated and demonstrate compliance with 40CFR60, Subpart MMMM requirements, mercury emissions must be evaluated to include all process emissions of mercury. All records associated with the requirements specified above



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shall be maintained on site for at least 5 years and shall be readily available for NYSDEC review upon request.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2017.

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

**Condition 103:** Compliance Demonstration

Effective between the dates of 09/09/2016 and 09/08/2021

**Applicable State Requirement: 6 NYCRR 212-2.2** 

#### Item 103.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 018540-29-9 CHROMIUM(VI)

#### Item 103.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

BSA currently owns and operates three sewage sludge incinerators (SSIs), which include INC 1 (ES 0000D), INC 2 (ES 0000E) and INC 3 (ES 0000F). One of the contaminants that may be released to the ambient air from the sewage sludge incinerators (SSI) is chromium VI (Cr (VI)), a high toxicity air contaminant (HTAC) listed in Table 2 of 6NYCRR 212-2.2. The Mass Emission Limit (MEL) of 0.1 pounds per year (lb/yr) is based on the mass of chromium VI emitted from process emission sources. The results of the performance test conducted on June 17, 2014 for INC 2 (ES 0000E) to determine compliance with 40CFR503 requirements showed an emission rate potential (ERP) of 3.13E-01 lb/hr, actual emission rate (ER) of 1.20E-04 lb/hr and an actual annual ER of 1.05 lb/yr for total chromium. These results are based on a sludge feed rate of 2.58 dry tons per hour and a concentration of 60.67 mg/kg Cr in the sludge. It is unknown whether total chromium emissions from INC 2 contain Cr(VI).

To verify whether Cr (VI) is present in emissions from INC 2, BSA shall conduct a stack test during the next performance test of INC 2 emissions. The test shall be conducted similar to that required by 40CFR503 for heavy metals, determining the concentration of Cr (VI) in the sludge, and overall removal efficiency using a method



acceptable to the department. If Cr (VI) is present in the emissions generated by incinerating sewage sludge in INC 2, BSA shall determine the average emission rate potential (ERP), lb Cr(VI)/hr and the actual emission rate (ER) lb Cr (VI)/hr. Stack test operating data and test results shall be used to determine an emission factor for calculating actual annual emissions and to verify compliance with the MEL listed in Table 2. If the annual actual emissions of Cr (VI) exceed the MEL, BSA shall demonstrate compliance with the air cleaning requirements specified in 212-2.3(b), Table 4. If the actual annual ER does not exceed the MEL, BSA will be in compliance with 6NYCRR212-2 requirements for CR (VI). In that case, BSA shall track Cr (VI) emissions to verify continuous compliance with the MEL for Cr (VI). At the end of each two month calendar period, BSA shall calculate the chromium (VI) emissions using data from the most recent stack test, the Cr(VI) concentration determined in the sludge for that bimonthly period, sludge feed rate, and the cumulative hours of incinerator operation during that period. At the end of the calendar year the bimonthly emissions of chromium (VI) shall be totaled for the actual annual emission rate of chromium (VI), then compared to the MEL to verify compliance. The dry sludge feed rate shall not exceed the maximum average dry sludge feed rate determined during the latest stack test that shows compliance with all requirements specified in this permit.

BSA shall maintain records for each incinerator, including hours of operation, dry sludge feed rate (dtph), performance test results, calculation of emission factors, calculation of actual annual emissions and comparison to the MEL. In addition, BSA shall maintain sampling and analytical records and reports for detection of metal in sewage sludge. All records shall be kept on-site for a minimum of 5 years and shall be available to NYSDEC and/or USEPA representatives upon request.

If INC 1 and INC 3 and associated control equipment are rehabilitated and demonstrate compliance with 40CFR60, Subpart MMMM, Cr(VI) emissions must be evaluated to include all process source emissions.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: SLUDGE

Renewal 2

Parameter Monitored: CHROMIUM(VI) Upper Permit Limit: 0.1 pounds per year

Monitoring Frequency: BI-MONTHLY (ONCE EVERY 2 MONTHS)

Averaging Method: ANNUAL TOTAL

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION



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**Condition 104:** Compliance Demonstration

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable State Requirement: 6 NYCRR 212-2.2

#### Item 104.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 007440-02-0 NICKEL METAL AND INSOLUBLE

**COMPOUNDS** 

#### Item 104.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

BSA currently owns and operates three sewage sludge incinerators (SSIs), which include INC 1 (ES 0000D), INC 2 (ES 0000E) and INC 3 (ES 0000F). One of the contaminants released to the ambient air from the sewage sludge incinerators (SSI) is nickel (Ni), a high toxicity air contaminant (HTAC) listed in Table 2. The Mass Emission Limit (MEL) of 10 pounds per year is based on the mass of the parent metal for all nickel compounds emitted from process emission sources.

The results of the performance test conducted on June 17, 2014 for INC 2 (ES 0000E) to determine compliance with 40CFR503 requirements showed an average emission rate potential (ERP) of 1.98E-01 lb Ni/hr and an actual emission rate (ER) of 1.46E-04 lb Ni/hr based on an average sewage sludge concentration of 38.33 mg Ni/kg sludge and an average maximum sewage sludge feed rate of 2.58 dry tons per hour. Stack test operating data and results shall be used to determine an emission factor for calculating actual annual emissions and verifying compliance with the MEL listed in Table 2. At the end of each two month calendar period, BSA shall calculate the nickel emissions using the emission factor derived from the most recent stack test, the cumulative hours of incinerator operation during that period and the nickel concentration determined in the sludge for that bimonthly period. At the end of the calendar year the bimonthly emissions of nickel shall be totaled to determine the actual annual emission rate of nickel, which shall be compared to the MEL to verify compliance. If the annual



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actual emissions of Ni exceeds the MEL, BSA shall demonstrate compliance with the air cleaning requirements specified in 212-2.3(b), Table 4. If the actual annual emissions does not exceed the MEL, BSA will be in compliance with 6NYCRR212-2 requirements for nickel. The dry sludge feed rate shall not exceed the average dry sludge feed rate that corresponds to the actual emission rate of nickel determined during the latest stack test.

BSA shall maintain records for each incinerator, including hours of operation, dry sludge feed rate (dtph), performance test results, calculation of emission factors, calculation of bimonthly actual emissions, calculation of actual annual emissions and comparison to the MEL. In addition, BSA shall maintain sampling and analytical records and reports for detection of metals in sewage sludge. All records shall be kept on-site for a minimum of 5 years and shall be available to NYSDEC and/or USEPA representatives upon request.

If INC 1 and INC 3 and associated control equipment are rehabilitated and demonstrate compliance with 40CFR60, Subpart MMMM, nickel emissions must be reevaluated to include all process source emissions.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: SLUDGE

Parameter Monitored: NICKEL METAL AND INSOLUBLE COMPOUNDS

Upper Permit Limit: 10 pounds per year

Reference Test Method: 29

Monitoring Frequency: BI-MONTHLY (ONCE EVERY 2 MONTHS)

Averaging Method: ANNUAL TOTAL

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 105:** Compliance Demonstration

Effective between the dates of 09/09/2016 and 09/08/2021

**Applicable State Requirement: 6 NYCRR 212-2.2** 

#### Item 105.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 007440-47-3 CHROMIUM

#### Item 105.2:

Compliance Demonstration shall include the following monitoring:



Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Renewal 2

BSA currently owns and operates three sewage sludge incinerators (SSIs), which include INC 1 (ES 0000D), INC 2 (ES 0000E) and INC 3 (ES 0000F). One of the contaminants released to the ambient air from the sewage sludge incinerators (SSI) is chromium (Cr), a high toxicity air contaminant (HTAC) listed in Table 2. The Mass Emission Limit (MEL) of 250 pounds per year is based on the mass of the parent metal for all chromium compounds, not including chromium (VI) compound, emitted from process emission sources.

The results of the performance test conducted on June 17, 2014 for INC 2 (ES 0000E) to determine compliance with 40CFR503 requirements showed an average emission rate potential (ERP) of 3.13E-01 lb Cr/hr and an actual emission rate (ER) of 1.20E-04 lb Cr/hr based on an average sewage sludge concentration of 60.67 mg Cr/kg sludge and an average maximum sewage sludge feed rate of 2.58 dry tons per hour. Stack test operating data and results shall be used to determine an emission factor for calculating actual annual emissions and verifying compliance with the MEL contained in §212-2.2 Table 2. At the end of each two month calendar period, BSA shall calculate the chromium emissions using the emission factor derived from the most recent stack test, the cumulative hours of incinerator operation during that period and the chromium concentration determined in the sludge. At the end of the calendar year the bimonthly emissions of chromium shall be totaled to determine the actual annual emission rate of chromium, which shall be compared to the MEL to verify compliance. If the annual actual emissions of Cr exceed the MEL, BSA shall demonstrate compliance with the air cleaning requirements specified in 212-2.3(b). Table 4. If the actual annual ER does not exceed the MEL, BSA will be in compliance with 6NYCRR212-2 requirements for chromium. The dry sludge feed rate shall not exceed the average maximum dry sludge feed rate determined during the latest stack test.

BSA shall maintain records for each incinerator, including hours of operation, dry sludge feed rate (dtph), performance test results, calculation of emission factors, calculation of actual annual emissions and comparison to the MEL. In addition, BSA shall maintain sampling and analytical records and reports for detection of metal in sewage sludge. All records shall be kept on-site for a minimum of 5 years and shall be available to NYSDEC and/or USEPA representatives upon request.



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If INC 1 and INC 3 and associated control equipment are rehabilitated and demonstrate compliance with 40CFR60, Subpart MMMM, chromium emissions must be evaluated to include all process source emissions.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: SLUDGE

Parameter Monitored: CHROMIUM Upper Permit Limit: 250 pounds per year

Reference Test Method: 29

Monitoring Frequency: BI-MONTHLY (ONCE EVERY 2 MONTHS)

Averaging Method: ANNUAL TOTAL

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

**Condition 106:** Compliance Demonstration

Effective between the dates of 09/09/2016 and 09/08/2021

Applicable State Requirement: 6 NYCRR 212-2.2

#### Item 106.1:

The Compliance Demonstration activity will be performed for the facility: The Compliance Demonstration applies to:

Emission Unit: U-00002

Process: INC

Regulated Contaminant(s):

CAS No: 007440-41-7 BERYLLIUM

#### Item 106.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

BSA currently owns and operates three sewage sludge incinerators (SSIs), which includes INC 1 (ES 0000D), INC 2 (ES 0000E) and INC 3 (ES 0000F). One of the contaminants released to the ambient air from the sewage sludge incinerators (SSI) is beryllium (Be), a high toxicity air contaminant (HTAC) listed in §212-2.2 Table 2 (Table 2). The mass emission limit (MEL) in Table 2 is based on the mass of the parent metal for all beryllium compounds emitted from process emission sources.

The results of the performance test conducted on June 17, 2014 for INC 2 (ES 0000E) to determine compliance with 40CFR503 requirements showed an emission rate potential (ERP) of 5.13E-03 lb Be/hr and an actual emission rate (ER) of 3.51E-06 lb Be/hr based on an average sewage



sludge concentration of 1 mg Be/kg sludge and an average maximum sewage sludge feed rate of 2.58 dry tons per hour. The actual annual emission rate from INC 2, based on 8760 hours per year operation, is 0.031 lb Be/yr, which is less than the MEL of 1 lb Be/yr. Stack test operating data and results shall be used to determine an emission factor for calculating actual annual emissions and verifying compliance with the MEL for beryllium. At the end of each calendar month, BSA shall calculate the beryllium emissions using the emission factor derived from the most recent stack test, the cumulative hours of incinerator operation and the beryllium concentration determined in the sludge for that bimonthly period. At the end of the calendar year the monthly emissions of beryllium shall be totaled to determine the actual annual emission rate of beryllium, which shall be compared to the MEL to verify compliance. If the annual actual emissions of Be exceeds the MEL (1 pound), a Toxic Impact Assessment (TIA) shall be conducted in accordance with 6NYCRR212-1.5(e)(2) and the monitoring condition in this permit under §212-2.1(a) for mercury. If the actual annual ER does not exceed the MEL, BSA will be in compliance with 6NYCRR212-2 requirements for beryllium. The dry sludge feed rate shall not exceed the average dry sludge feed rate determined during the latest stack test that verifies compliance with all applicable requirements.

BSA shall maintain records for each incinerator, including hours of operation, dry sludge feed rate (dtph), performance test results, calculation of emission factors, calculation of actual annual emissions and comparison to the MEL. In addition, BSA shall maintain sampling and analytical records and reports for detection of metal in sewage sludge. All records shall be kept on-site for a minimum of 5 years and shall be available to NYSDEC and/or USEPA representatives upon request.

If INC 1 and INC 3 and associated control equipment are rehabilitated and demonstrate compliance with 40CFR60, Subpart MMMM, beryllium emissions must be evaluated to include all process source emissions of this contaminant.

Work Practice Type: PARAMETER OF PROCESS MATERIAL

Process Material: SLUDGE

Parameter Monitored: BERYLLIUM Upper Permit Limit: 1 pounds per year

Reference Test Method: 29

Monitoring Frequency: BI-MONTHLY (ONCE EVERY 2 MONTHS)

Averaging Method: ANNUAL TOTAL

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION



