MISSOURI
DEPARTMENT OF
NATURAL RESOURCES
Air Pollution Control Program

Draft

# PART 70
# PERMIT TO OPERATE

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth herein.

**Operating Permit Number:** MMYYYY-###
**Expiration Date:**
**Installation ID:** 510-0053
**Project Number:** 2007-06-088

**Installation Name and Address**
MSD - Bissell Point
Wastewater Treatment Plant
10 East Grand Avenue
St. Louis, MO 63147
City of St. Louis

**Parent Company's Name and Address**
Metropolitan St. Louis Sewer District
2350 Market Street
St. Louis, MO 63103-2555

**Installation Description:**
The Bissell Point Plant treats wastewater and sewage from the St. Louis area. The plant incinerates the sludge produced during the treatment process. The installation is located in an ozone non-attainment area and is a major source for nitrogen oxides and carbon monoxide.

Prepared by
Berhanu A. Getahun
Operating Permit Unit

Director or Designee
Department of Natural Resources

Effective Date

# Table of Contents

# I. Installation Equipment Listing

**EMISSION UNITS WITH LIMITATIONS**

The following list provides a description of the equipment at this installation that emits air pollutants and that are identified as having unit-specific emission limitations.

| Emission Unit # | Description of Emission Unit |
|---|---|
| EP03 | Incinerator #2 |
| EP04 | Incinerator #3 |
| EP05 | Incinerator #4 |
| EP06 | Incinerator #5 |
| EP09 | Wet Ash Conveying |
| EP10 | 1000 Gallon Underground Gasoline Storage Tank |
| EP14 | Sludge Building Boiler #1 |
| EP15 | Sludge Building Boiler #2 |
| EP16 | Sludge Building Boiler #3 |
| EP18 | Pump Station Boilers (2) |
| EP19 | Primary Control Building Boiler |
| EP20 | Two Administration Building Boilers (2) |
| EP22 | Trickling Filter Pump Station Boiler |
| EP23 | Biofilter |

**EMISSION UNITS WITHOUT SPECIFIC LIMITATIONS**

The following list provides a description of the equipment that does not have unit specific limitations at the time of permit issuance.

| Emission Unit # | Description of Emission Unit |
|---|---|
| EP01 | Wastewater Treatment includes: Influent Pump station, 6 Grit Removal Tanks, 7 Comminutors, 8 Primary Settling Tanks, 2 Sludge Holding Tanks, 2 Ash Settling Basins, 1Trickling Filter Pump Station, 6 Trickling Filters, 6 Aeration Tanks, 12 Final Clarifiers, Disinfection, Effluent Pump Station |
| EP11 | One 500-Gallon Underground Diesel Storage Tank |
| EP21 | Prep Buildings Space Heaters – 4 Direct Fired 3.4 MMBtu/hr (total heat input) Space Heaters, Natural Gas Fired |
| EP24 | Natural Gas Fired Water Heaters: Environmental Compliance (3), Primary Control Building (1), Pump Station Maintenance Building (1) |
| EP25 | Small Parts Spray Booth |
| EP26 | Parts Washer - (only aqueous cleaner used) |
| EP27 | Sand Blasters (2 units) |

# II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued. The plant wide conditions apply to all emission units at this installation. All emission units are listed in Section I under Emission Units with Limitations or Emission Units without Limitations.

None

# III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

| EP03 through EP06 – Incinerators | | |
|---|---|---|
| Emission Unit | Description | Manufacturer/ Model # |
| EP03 | Incinerator #2 – Multiple Hearth Sewage Sludge Incinerator (SSI) (constructed 1967)<br>Air Pollution Control – Venturi Scrubber (CD15) and Impingement Tray Scrubber (CD16) | Nichols Herreshoff |
| EP04 | Incinerator #3 – Multiple Hearth Sewage Sludge Incinerator (SSI) (constructed 1967)<br>Air Pollution Control – Venturi Scrubber (CD17) and Impingement Tray Scrubber (CD18) | Nichols Herreshoff |
| EP05 | Incinerator #4 – Multiple Hearth Sewage Sludge Incinerator (SSI) (constructed 1967)<br>Air Pollution Control – Venturi Scrubber (CD19) and Impingement Tray Scrubber (CD20) | Nichols Herreshoff |
| EP06 | Incinerator #5 – Multiple Hearth Sewage Sludge Incinerator (SSI) (constructed 1967)<br>Air Pollution Control – Venturi Scrubber (CD21) and Impingement Tray Scrubber (CD22) | Nichols Herreshoff |

## Permit Condition (EP03 through EP06) - 001

10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants
40 CFR Part 61 Subpart C National Emission Standard for Beryllium

***Emission Limitation:***

The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart C for any activities occurring at this installation which would be subject to the provisions of 40 CFR Part 61, Subpart C, National Emission Standard for Beryllium. Emissions to the atmosphere from the incinerators shall not exceed 10 grams of beryllium over a 24-hour period. [40 CFR 61.32(a)]

***Monitoring:***

MSD shall perform stack sampling and testing as specified in 40 CFR §61.33.

***Recordkeeping:***

1) The permittee shall retain copies of emission test results. Any other data needed to determine total emissions shall be retained as specified in 40 CFR §61.33(e). [40 CFR §61.33].
2) Recordkeeping shall be accomplished in accordance with the requirements of 10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements, as stated in Section V of this permit.

***Reporting:***
The permittee shall report to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, or AirComplianceReporting@dnr.mo.gov, no later than ten days after any exceedance of any of the terms imposed by this regulation. Any deviations from this permit condition shall also be reported in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

## Permit Condition (EP03 through EP06) - 002

10 CSR 10-6.060 Construction Permits Required
Construction Permit No. 95-05-068, Issued August 16, 1995

***Emission Limitation:***
The permittee shall not cause, permit or allow the emissions rate of total hydrocarbon (THC) to exceed one hundred parts per million by volume (100 ppmv) based on a monthly average and corrected for zero percent (0%) moisture and seven percent (7%) oxygen when using the instrument required by 40 CFR Part 503.45. [Permit #95-05-068, Section II F.]

***Monitoring:***
1) The permittee shall install, calibrate, operate, and maintain an instrument for each sewage sludge incinerator that measures and records the total hydrocarbons concentration in the sewage sludge incinerator stack exit gas continuously, as specified by the permitting authority. [40 CFR 503.45(a)(1)]
2) The total hydrocarbons instrument shall employ a flame ionization detector; shall have a heated sampling line maintained at a temperature of 150 degrees Celsius or higher at all times; and shall be calibrated at least once every 24-hour operating period using propane. [40 CFR 503.45(a)(2)]
3) The permittee shall install, calibrate, operate, and maintain an instrument for each sewage sludge incinerator that measures and records the oxygen concentration in the sewage sludge incinerator stack. [40 CFR 503.45(b)]
4) The permittee shall install, calibrate, operate, and maintain an instrument for each sewage sludge incinerator that measures and records information used to determine the moisture content in the sewage sludge incinerator stack exit gas continuously. [40 CFR 503.45(c)]

***Recordkeeping:***
The permittee shall keep records of:
1) The measured total hydrocarbon (THC) for stack exist gases. [Permit #95-05-068, Section VI A.9.]
2) The measured oxygen content of the exhaust gases from the incinerators. [Permit #95-05-068, Section VI A.2.]

***Reporting:***
The permittee shall report to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, or AirComplianceReporting@dnr.mo.gov, no later than ten days after any exceedance of any of the terms imposed by this regulation. Any deviations from this permit condition shall also be reported in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

## Permit Condition (EP03 through EP06) - 003

10 CSR 10-6.060 Construction Permits Required
Construction Permit No. 95-05-068, Issued August 16, 1995
New Source Review Permit Amendment - Permit Number: 95-05-068A, Issued December 29, 2014
Control Device Requirement – Scrubbers

***Operational Limitation/Equipment Specification:***

1) The permittee shall control emissions from the equipment listed in Table 1 below using venturi scrubbers and impingement tray scrubbers (CD-15 through CD-22) as specified in the permit application.

Table 1: Project Equipment

| Emission Unit | Emission Unit Description | Control Device |
|---|---|---|
| EP-03 | Sewage Sludge Incinerator #2 | Venturi Scrubber (CD15) and Impingement Tray Scrubber (CD16) |
| EP-04 | Sewage Sludge Incinerator #3 | Venturi Scrubber (CD17) and Impingement Tray Scrubber (CD18) |
| EP-05 | Sewage Sludge Incinerator #4 | Venturi Scrubber (CD19) and Impingement Tray Scrubber (CD20) |
| EP-06 | Sewage Sludge Incinerator #5 | Venturi Scrubber (CD21) and Impingement Tray Scrubber (CD22) |

2) The permittee shall charge no more than an average, on an annual basis, of 68.88 tons per day of dry solid sludge to each incinerator. However, no more than an average, on an annual basis, of 203.75 tons per day of combined dry sewage sludge may be charged into the four operational incinerators at the installation. Therefore, the total amount of combined sewage sludge that may be burned at this installation shall not exceed 74,369 tons per year.
3) The permittee shall operate and maintain the scrubbers in accordance with the manufacturer's specifications. Each scrubber shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. Each scrubber shall be equipped with a flow meter that indicates the liquid flow rate through the scrubber. These gauges or meters shall be located such that MoDNR's employees may easily observe them.

***Monitoring/Recordkeeping:***

1) The permittee shall maintain a copy of the scrubber manufacturer's performance warranty containing the design conditions on site.
2) The permittee shall monitor and record the liquid flow rate through each scrubber at least once every 24 hours while the scrubbers are in operation. The flow rate shall be maintained within the design conditions specified in the manufacturer's performance warranty.
3) The permittee shall maintain an operating and maintenance log for the scrubbers which shall include the following:
   a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
   b) Maintenance activities, including inspection schedules, repair actions, and replacements made.
4) The Permittee shall maintain records of the sewage sludge feed rate to the incinerators.

## Permit Condition (EP03 through EP06) - 004

10 CSR 10-6.191 Sewage Sludge Incinerators
10 CSR 10-6.191(3)(b) Operator Training and Qualifications — 40 CFR §§60.5130 through 60.5160

***Operator Training and Qualification Requirements:*** [40 CFR §60.5130]

1) The permittee shall not operate the SSI unit unless a fully trained and qualified SSI unit operator is accessible, either at the facility or can be at the facility within 1 hour. The 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. If all qualified SSI unit operators are temporarily not accessible, the permittee must follow the procedures in 40 CFR §60.5155. [40 CFR §60.5130(a)]
2) The permittee shall obtain operator training and qualification through a state-approved program or by completing the requirements included in 40 CFR §60.5130(c) (described in 3) below). [40 CFR §60.5130(b)]
3) Training must be obtained by completing an incinerator operator training course that includes, at a minimum, the three elements described in 40 CFR §60.5130(c)(1) through (c)(3) (listed below). [40 CFR §60.5130(c)]
   a) Training on the 10 subjects listed in 40 CFR §60.5130(c)(1)(i) through (c)(1)(x) (listed below). [40 CFR §60.5130(c)(1)]
      i) Environmental concerns, including types of emissions. [40 CFR §60.5130(c)(1)(i)]
      ii) Basic combustion principles, including products of combustion. [40 CFR §60.5130(c)(1)(ii)]
      iii) Operation of the specific type of incinerator to be used by the operator, including proper startup, sewage sludge feeding, and shutdown procedures. [40 CFR §60.5130(c) (1)(iii)]
      iv) Combustion controls and monitoring. [40 CFR §60.5130(c)(1)(iv)]
      v) Operation of air pollution control equipment and factors affecting performance (if applicable). [40 CFR §60.5130(c)(1)(v)]
      vi) Inspection and maintenance of the incinerator and air pollution control devices. [§60.5130(c)(1)(vi)]
      vii) Actions to prevent malfunctions or to prevent conditions that may lead to malfunctions. [40 CFR §60.5130(c) (1)(vii)]
      viii) Bottom and fly ash characteristics and handling procedures. [40 CFR §60.5130(c)(1)(viii)]
      ix) Applicable Federal, State, and local regulations, including Occupational Safety and Health Administration workplace standards. [40 CFR §60.5130(c)(1)(ix)]
      x) Pollution prevention. [40 CFR §60.5130(c)(1)(x)]
   b) An examination designed and administered by the state-approved program. [40 CFR §60.5130(c)(2)]
   c) Written material covering the training course topics that may serve as reference material following completion of the course. [40 CFR §60.5130(c)(3)]

***Operator Training Course:*** [40 CFR §60.5135]

The Permittee shall complete the operator training course as required by §60.5135.

***Operator Qualification:*** [40 CFR §§60.5140 through 5155]

1) The permittee must obtain operator qualification by completing a training course that satisfies the criteria under 40 CFR §60.5130(b). [40 CFR §60.5140(a)]
2) Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under 40 CFR §60.5130(c)(2). [40 CFR §60.5140(b)]

3) To maintain qualification, the permittee must complete an annual review or refresher course covering, at a minimum, the five topics described in 40 CFR §60.5145 (a) through (e). [40 CFR §60.5145]
   a) Update of regulations. [40 CFR §60.5145(a)]
   b) Incinerator operation, including startup and shutdown procedures, sewage sludge feeding, and ash handling. [40 CFR §60.5145(b)]
   c) Inspection and maintenance. [40 CFR §60.5145(c)]
   d) Prevention of malfunctions or conditions that may lead to malfunction. [40 CFR §60.5145(d)]
   e) Discussion of operating problems encountered by attendees. [40 CFR §60.5145(e)]
4) The permittee must renew a lapsed operator qualification before the permittee begins operation of a SSI unit by one of the two methods specified in 40 CFR §60.5150(a) and (b). [40 CFR §60.5150]
   a) For a lapse of less than 3 years, the permittee must complete a standard annual refresher course described in 40 CFR §60.5145. [40 CFR §60.5150(a)]
   b) For a lapse of 3 years or more, the permittee must repeat the initial qualification requirements in 40 CFR §60.5140(a). [40 CFR §60.5150(b)]
5) If a qualified operator is not at the facility and cannot be at the facility within 1 hour, the permittee must meet the criteria specified in either paragraphs (a) or (b) of 40 CFR §60.5155 (listed below), depending on the length of time that a qualified operator is not accessible. [40 CFR §60.5155]
   a) When 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. However, the permittee must record the period when a qualified operator was not accessible and include this deviation in the annual report as specified under 40 CFR §60.5235(d). [40 CFR §60.5155(a)]
   b) When a qualified operator is not accessible for 2 weeks or more, the permittee must take the two actions that are described in 40 CFR §60.5155 (b)(1) and (b)(2) (listed below). [40 CFR §60.5155(b)]
      i) The permittee shall notify the Director of this deviation in writing within 10 days. In the notice, state what caused this deviation, what the permittee is doing to ensure that a qualified operator is accessible, and when the permittee anticipates that a qualified operator will be accessible. [40 CFR §60.5155(b)(1)]
      ii) The permittee shall submit a status report to the Director every 4 weeks outlining what the permittee is doing to ensure that a qualified operator is accessible, stating when the permittee anticipates that a qualified operator will be accessible, and requesting approval from the Director to continue operation of the SSI unit. The permittee must submit the first status report 4 weeks after the permittee notifies the Director of the deviation under 40 CFR §60.5155(b)(1). [40 CFR §60.5155(b)(2)]
         (1) If the Director notifies the permittee that the permittee's request to continue operation of the SSI unit is disapproved, the SSI unit may continue operation for 30 days, and then must cease operation. [40 CFR §60.5155(b)(2)(i)]
         (2) Operation of the unit may resume if a qualified operator is accessible as required under 40 CFR §60.5130(a). The permittee must notify the Director within 5 days of having resumed operations and of having a qualified operator accessible. [40 CFR §60.5155(b)(2)(i)]

***Site Specific Documentation:*** [40 CFR §60.5160]

1) The permittee must maintain at the facility the documentation of the operator training procedures specified under 40 CFR §60.5230(c)(1) and make the documentation readily accessible to all SSI unit operators. [40 CFR §60.5160(a)]
2) The permittee must establish a program for reviewing the information listed in 40 CFR §60.5230(c)(1) with each qualified incinerator operator and other plant personnel who may operate the unit according to the

provisions of 40 CFR §60.5155(a), according to the following schedule:
[40 CFR §60.5160(b)]

a) The initial review of the information listed in 40 CFR §60.5230(c)(1) must be conducted within 6 months prior to an employee's assumption of responsibilities for operation of the SSI unit. [40 CFR §60.5160(b)(1)]
b) Subsequent annual reviews of the information listed in 40 CFR §60.5230(c)(1) must be conducted no later than 12 months following the previous review. [40 CFR §60.5160(b)(2)]

## Permit Condition (EP03 through EP06) - 005

10 CSR 10-6.191 Sewage Sludge Incinerators
10 CSR 10-6.191(3)(C) Emission Limits, Emission Standards, Operating Limits, and Requirements — 40 CFR §§60.5165 through 60.5181

***Emission Limitation and Standards:***

1) The permittee must meet the emission limits and standards specified in Table 3 to Subpart MMMM of 40 CFR Part 60 by the final compliance date under the approved state plan, Federal plan, or delegation, as applicable. The emission limits and standards apply at all times the unit(s) is operating 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 (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). [40 CFR §60.5165]

Table 3 to Subpart MMMM of 40 CFR Part 60 —Emission Limits and Standards for Existing Multiple Hearth Sewage Sludge Incineration Units

| For the air pollutant | The permittee must meet this emission limit[a] | Using these averaging methods and minimum sampling volumes or durations | And determine compliance using this method |
|---|---|---|---|
| Particulate matter | 80 milligrams per dry standard cubic meter | 3-run average (collect a minimum volume of 0.75 dry standard cubic meters per run) | Performance test (Method 5 at 40 CFR part 60, appendix A-3; Method 26A or Method 29 at 40 CFR Part 60, Appendix A-8). |
| Hydrogen chloride | 1.2 parts per million by dry volume | 3-run average (For Method 26, collect a minimum volume of 200 liters per run. For Method 26A, collect a minimum volume of 1 dry standard cubic meters per run) | Performance test (Method 26 or 26A at 40 CFR Part 60, Appendix A-8). |
| Carbon monoxide | 3,800 parts per million by dry volume | 3-run average (collect sample for a minimum duration of one hour per run) | Performance test (Method 10, 10A, or 10B at 40 CFR Part 60, Appendix A-4). |
| Dioxins/furans (total mass basis) | 5.0 nanograms per dry standard cubic meter; or | 3-run average (collect a minimum volume of 1 dry standard cubic meters per run) | Performance test (Method 23 at 40 CFR Part 60, Appendix A-7). |
| Dioxins/furans (toxic equivalency basis)[b] | 0.32 nanograms per dry standard cubic meter | | |
| Mercury | 0.28 milligrams per dry | 3-run average (For Method 29 and ASTM | Performance test (Method 29 at |

| For the air pollutant | The permittee must meet this emission limit[a] | Using these averaging methods and minimum sampling volumes or durations | And determine compliance using this method |
|---|---|---|---|
| | standard cubic meter | D6784-02 (Reapproved 2008),[c] collect a minimum volume of 1 dry standard cubic meters per run. For Method 30B, collect a minimum sample as specified in Method 30B at 40 CFR part 60, appendix A-8) | 40 CFR part 60, appendix A-8; Method 30B at 40 CFR Part 60, Appendix A-8; or ASTM D6784-02 (Reapproved 2008)).[c] |
| Oxides of nitrogen | 220 parts per million by dry volume | 3-run average (Collect sample for a minimum duration of one hour per run) | Performance test (Method 7 or 7E at 40 CFR Part 60, Appendix A-4). |
| Sulfur dioxide | 26 parts per million by dry volume | 3-run average (For Method 6, collect a minimum volume of 200 liters per run. For Method 6C, collect sample for a minimum duration of one hour per run) | Performance test (Method 6 or 6C at 40 CFR part 40, Appendix A-4; or ANSI/ASME PTC 19.10-1981).[c] |
| Cadmium | 0.095 milligrams per dry standard cubic meter | 3-run average (collect a minimum volume of 1 dry standard cubic meters per run) | Performance test (Method 29 at 40 CFR part 60, Appendix A-8). |
| Lead | 0.30 milligrams per dry standard cubic meter | 3-run average (collect a minimum volume of 1 dry standard cubic meters per run) | Performance test (Method 29 at 40 CFR Part 60, Appendix A-8). |

[a] All emission limits are measured at 7 percent oxygen, dry basis at standard conditions.
[b] The permittee has the option to comply with either the dioxin/furan emission limit on a total mass basis or the dioxin/furan emission limit on a toxic equivalency basis.
[c] Incorporated by reference, see 40 CFR §60.17.

2) The emission limits and standards apply at all times and during periods of malfunction. [40 CFR §60.5180]

***Operating Limits and Requirements:***

The permittee must meet the operating limits and requirements specified in 40 CFR §60.5170(a), (b), (e),(f) and (g) (listed below), according to the schedule specified in 40 CFR §60.5170 (e). The operating parameters for which the permittee will establish operating limits for a wet scrubber, are listed in Table 4 to Subpart MMMM of 40 CFR Part 60. The permittee must comply with the operating requirements in 40 CFR §60.5170 (f) and the requirements in 40 CFR §60.5170 (g) for meeting any new operating limits, re-established in 40 CFR §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). [40 CFR §60.5170]

**Table 4 to Subpart MMMM of 40 CFR Part 60—Operating Parameters for Existing Sewage Sludge Incineration Units[a]**

| For these operating parameters | The permittee must establish these operating limits | And monitor using these minimum frequencies | | |
|---|---|---|---|---|
| | | Data measurement | Data recording[b] | Data averaging period for compliance |
| Combustion chamber operating temperature (not required if afterburner temperature is monitored) | Minimum combustion chamber or afterburner operating temperature | Continuous | Every 15 minutes | 12-hour block. |
| Pressure drop across each wet scrubber | Minimum pressure drop | Continuous | Every 15 minutes | 12-hour block. |
| Scrubber liquid flow rate | Minimum flow rate | Continuous | Every 15 minutes | 12-hour block. |
| Scrubber liquid pH | Minimum pH | Continuous | Every 15 minutes | 3-hour block. |

[a] As specified in 40 CFR §60.5190, the permit may use a continuous emissions monitoring system or continuous automated sampling system in lieu of establishing certain operating limits.

[b] This 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, the permittee must calculate hourly arithmetic averages. For all parameters, the permittee uses hourly averages to calculate the 12-hour or 3-hour block average specified in this table for demonstrating compliance. The permittee maintains records of 1-hour averages.

1) The permittee must meet the site-specific minimum combustion chamber operating temperature or afterburner operating temperature established in 40 CFR §60.5190. The minimum combustion chamber operating temperature or afterburner operating temperature shall be equal to the lowest 4-hour average combustion chamber operating temperature or afterburner operating temperature measured during the most recent performance test demonstrating compliance with all applicable emission limits. [40 CFR §60.5170(a) and 40 CFR §60.5190(e)]
2) The permittee must meet the site specific operating limits for the wet scrubbers established according to 40 CFR §60.5190 (described below). [40 CFR §60.5170(b)]
   a) The minimum pressure drop across each wet scrubber used to meet the particulate matter, lead, and cadmium emission limits in Table 3 to Subpart MMMM of 40 CFR Part 60, shall be 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. [40 CFR §60.5190(b)]
   b) Minimum scrubber liquid flow rate (measured at the inlet to each wet scrubber), shall be equal to the lowest 4-hour average liquid flow rate measured during the most recent performance test demonstrating compliance with all applicable emission limits. [40 CFR §60.5190(c)]
   c) The minimum scrubber liquid pH for each wet scrubber used to meet the sulfur dioxide or hydrogen chloride emission limits in Table 3 to Subpart MMMM of 40 CFR Part 60, equal to the lowest 1-hour average scrubber liquid pH measured during the most recent performance test demonstrating compliance with the sulfur dioxide and hydrogen chloride emission limits. [40 CFR §60.5190(d)]
3) The permittee must meet the operating limits specified in 40 CFR §60.5170(a) and (b) by the final compliance date. [40 CFR §60.5170(e)]

4) The permittee must monitor the feed rate and moisture content of the sewage sludge fed to the sewage sludge incinerator, as specified in 40 CFR §60.5170 (f)(1) and (f)(2). [40 CFR §60.5170(f)]
   a) The permittee must 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 40 CFR §60.5230(f)(3)(ii) (described in Permit Condition (EP03 through EP06) – 008). [40 CFR §60.5170(f)(1)]
   b) The permittee must take at least one grab sample per day of the sewage sludge fed to the sewage sludge incinerator. If the permittee takes more than one grab sample 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). [40 CFR §60.5170(f)(2)]
5) For the operating limits and requirements specified in 40 CFR §60.5170(a), (b), and (d), the permittee must meet any new operating limits and requirements, re-established according to 40 CFR §60.5210(d). [40 CFR §60.5170(g)]

## Permit Condition (EP03 through EP06) - 006

10 CSR 10-6.191 Sewage Sludge Incinerators
10 CSR 10-6.191(3)(D) Initial Compliance Requirements — 40 CFR §§60.5185 through 60.5200
10 CSR 10-6.191(3)(D) Continuous Compliance Requirements — 40 CFR §§60.5205 through 60.5215

***Initial Compliance Requirements:***

1) To demonstrate initial compliance with the emission limits and standards in Table 3 to Subpart MMMM of 40 CFR Part 60 (Permit Condition (EP-03 through EP-06) – 005), the permittee shall use the procedures specified in 40 CFR §60.5185(a). The permittee must meet the requirements of 40 CFR §60.5185(a) and (e), according to the performance testing, monitoring, and calibration requirements in 40 CFR §60.5220(a). [40 CFR §60.5185]
   a) The permittee shall demonstrate initial compliance using the performance test required in 40 CFR §60.8. The permittee must demonstrate that the SSI unit meets the emission limits and standards specified in Table 3 to Subpart MMMM of 40 CFR Part 60 for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, lead, and fugitive emissions from ash handling using the performance test. The initial performance test must be conducted using the test methods, averaging methods, and minimum sampling volumes or durations specified in Table 3 to this subpart (Permit Condition (EP-03 through EP-06) – 005) and according to the testing, monitoring, and calibration requirements specified in 40 CFR §60.5220(a). [40 CFR 40 CFR §60.5185(a)]
      i) Except as provided in 40 CFR §60.5185(e), the permittee must demonstrate that the SSI unit meets the emission limits and standards specified in Table 3 to Subpart MMMM of 40 CFR Part 60 by the permittee's final compliance date (see Table 1 to this Subpart MMMM of 40 CFR Part 60 ). [40 CFR §60.5185(a)(1)]
      ii) The permittee may use the results from a performance test conducted within the 2 previous years that was conducted under the same conditions and demonstrated compliance with the emission limits and standards in Table 3 to this subpart (Permit Condition (EP-03 through EP-06) – 005), provided no process changes have been made since the permittee conducted that performance test. However, the permittee must continue to meet the operating limits established during the most recent performance test that demonstrated compliance with the emission limits and standards in Table 3 to Subpart MMMM of 40 CFR Part 60 (Permit Condition (EP-03 through EP-06) – 005). The performance test must have used the test methods specified in Table 3 to Subpart MMMM of 40 CFR Part 60. [40 CFR §60.5185(a)(2)]

b) If a force majeure is about to occur, occurs, or has occurred for which the permittee intend to assert a claim of force majeure, the permittee must notify the Director in writing as specified in 40 CFR §60.5235(g). The permittee must conduct the initial performance test as soon as practicable after the force majeure occurs. The Director will determine whether or not to grant the extension to the initial performance test deadline, and will notify the permittee in writing of approval or disapproval of the request for an extension as soon as practicable. Until an extension of the performance test deadline has been approved by the Director, the permittee remains strictly subject to the requirements of this subpart. [40 CFR §60.5185(e)]

2) Air Pollution Control Device Inspection: [40 CFR §60.5195]
   a) The permittee must conduct an air pollution control device inspection according to 40 CFR §60.5220(c) by the final compliance date under the approved state plan, Federal plan, or delegation, as applicable. For air pollution control devices installed after the final compliance date, the permittee must conduct the air pollution control device inspection within 60 days after installation of the control device. [40 CFR §60.5195(a)]
   b) Within 10 operating days following the air pollution control device inspection under 40 CFR §60.5195(a), all necessary repairs must be completed unless the permittee obtains written approval from the Director establishing a date whereby all necessary repairs of the SSI unit must be completed. [40 CFR §60.5195(b)]
3) The permittee shall develop, submit and update a site specific monitoring plan for each continuous parametric monitoring and ash handling system and shall conduct an initial performance evaluation of the continuous parametric monitoring systems as specified in 40 CFR §60.5200. [40 CFR §60.5200]

***Continuous Compliance Requirements:***

1) Continuous compliance with the emission limits and standards:
   To demonstrate continuous compliance with the emission limits and standards specified in Table 3 to Subpart MMMM of 40 CFR Part 60 (Permit Condition (EP-03 through EP-06) – 005), the permittee must use the procedures specified in 40 CFR §60.5205(a). The permittee must meet the requirements of 40 CFR §60.5205(a) and (e), according to the performance testing, monitoring, and calibration requirements in 40 CFR §60.5220(a) and (b). The permittee may also petition the Director for alternative monitoring parameters as specified in 40 CFR §60.5205. [40 CFR §60.5205]
   a) The permittee shall demonstrate continuous compliance using a performance test. Except as provided in 40 CFR §60.5205(a)(3) and (e), following the date that the initial performance test for each pollutant in Table 3 to Subpart MMMM of 40 CFR Part 60 is completed, the permittee must conduct a performance test for each such pollutant on an annual basis (between 11 and 13 calendar months following the previous performance test). The performance test must be conducted using the test methods, averaging methods, and minimum sampling volumes or durations specified in Table 3 to Subpart MMMM of 40 CFR Part 60 and according to the testing, monitoring, and calibration requirements specified in 40 CFR §60.5220(a).
      [40 CFR §60.5205(a)]
      i) The permittee may conduct a repeat performance test at any time to establish new values for the operating limits to apply from that point forward. The Director may request a repeat performance test at any time. [40 CFR §60.5205(a)(1)]
      ii) The permittee must repeat the performance test within 60 days of a process change, as defined in 40 CFR §60.5250. [40 CFR §60.5205(a)(2)]
      iii) Except as specified in 40 CFR §60.5205 (a)(1) and (2), the permittee can conduct performance tests less often for a given pollutant, as specified in 40 CFR §60.5205 (a)(3)(i) through (iii). [40 CFR §60.5205(a)(3)]

(1) The permittee can conduct performance tests less often if the permittee's performance tests for the pollutant for at least 2 consecutive years show that the emissions are at or below 75 percent of the emission limit specified in Table 3 to Subpart MMMM of 40 CFR Part 60 (Permit Condition (EP-03 through EP-06) – 005), and there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions. In this case, the permittee does not have to conduct a performance test for that pollutant for the next 2 years. The permittee must conduct a performance test during the third year and no more than 37 months after the previous performance test. [40 CFR §60.5205(a)(3)(i)]

(2) If the permittee's SSI unit continues to meet the emission limit for the pollutant, the permittee may choose to conduct performance tests for the pollutant every third year if the emissions are at or below 75 percent of the emission limit, and if there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions, but each such performance test must be conducted no more than 37 months after the previous performance test. [40 CFR §60.5205(a)(3)(ii)]

(3) If a performance test shows emissions exceeded 75 percent of the emission limit for a pollutant, the permittee must conduct annual performance tests for that pollutant until all performance tests over 2 consecutive years show compliance. [40 CFR §60.5205(a)(3)(iii)]

b) The permittee must submit an annual compliance report as specified in 40 CFR §60.5235(c). [40 CFR §60.5205(d)]

c) If a force majeure is about to occur, occurs, or has occurred for which the permittee intends to assert a claim of force majeure, the permittee must notify the Director in writing as specified in 40 CFR §60.5235(g). The permittee must conduct the performance test as soon as practicable after the force majeure occurs. The Director will determine whether or not to grant the extension to the performance test deadline, and will notify the permittee in writing of approval or disapproval of the request for an extension as soon as practicable. Until an extension of the performance test deadline has been approved by the Director, the permittee remains strictly subject to the requirements of Subpart MMMM of 40 CFR Part 60. [40 CFR §60.5205(e)]

d) After any initial requests in 40 CFR §60.5200 for alternative monitoring requirements for initial compliance, the permittee may subsequently petition the Director for alternative monitoring parameters as specified in 40 CFR §§60.13(i) and 60.5200(e). [40 CFR §60.5205(f)]

2) Continuous compliance with operating limits:
The permittee must continuously monitor the operating parameters as specified in 40 CFR §60.5210(a) and meet the requirements of 40 CFR §60.5210(b) and (c), according to the monitoring and calibration requirements in 40 CFR §60.5225. The permittee must confirm and re-establish the permittee's operating limits as specified in 40 CFR §60.5210(d). [40 CFR §60.5210]

a) The permittee must continuously monitor the operating parameters specified in 40 CFR §60.5210 (a)(1) using the continuous monitoring equipment and according to the procedures specified in 40 CFR §60.5225 or established in 40 CFR §60.5175. To determine compliance, the permittee must use the data averaging period specified in Table 4 to Subpart MMMM of 40 CFR Part 60 unless a different averaging period is established under 40 CFR §60.5175. [40 CFR §60.5210(a)]

i) The permittee must demonstrate that the SSI unit meets the operating limits established according to 40 CFR §§60.5175 and 60.5190 and 40 CFR §60.5210(d) for each applicable operating parameter. [40 CFR §60.5210(a)(1)]

b) Operation above the established maximum, below the established minimum, or outside the allowable range of the operating limits specified in 40 CFR §60.5210(a) constitutes a deviation from the permittee's 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. The permittee must submit the deviation report specified in 40 CFR §60.5235(d) for each instance that the

permittee did not meet one of the permittee's operating limits established under this subpart. [40 CFR §60.5210(b)]

c) The permittee must submit the annual compliance report specified in 40 CFR §60.5235(c) to demonstrate continuous compliance. . [40 CFR §60.5210(c)]

3) The permittee must confirm the permittee's operating limits according to 40 CFR §60.5210(d)(1) or re-establish operating limits according to 40 CFR §60.5210(d)(2). The permittee's operating limits must be established so as to assure ongoing compliance with the emission limits. These requirements also apply to the permittee's operating requirements in the permittee's fugitive emissions monitoring plan specified in 40 CFR §60.5170(d). [40 CFR §60.5210(d)]
   a) The permittee's operating limits must be based on operating data recorded during any performance test required in 40 CFR §60.5205(a). [40 CFR §60.5210(d)(1)]
   b) The permittee may conduct a repeat performance test at any time to establish new values for the operating limits to apply from that point forward. [40 CFR §60.5210(d)(2)]
4) Annual air pollution control device inspections and necessary repairs: [40 CFR §60.5215]
   a) The permittee must conduct an annual inspection of each air pollution control device used to comply with the emission limits, according to 40 CFR §60.5220(c), no later than 12 months following the previous annual air pollution control device inspection. [40 CFR §60.5215(a)]
   b) Within 10 operating days following an air pollution control device inspection, all necessary repairs must be completed unless the permittee obtains written approval from the Director establishing a date whereby all necessary repairs of the affected SSI unit must be completed. [40 CFR §60.5215(b)]

## Permit Condition (EP03 through EP06) - 007

10 CSR 10-6.191 Sewage Sludge Incinerators
10 CSR 10-6.191(3)(F) Performance Testing, Monitoring, and Calibration Requirements — 40 CFR §§60.5220 through 60.5225

***Performance Testing Requirements:***

1) All performance tests must consist of a minimum of three test runs conducted under conditions representative of normal operations, as specified in 40 CFR §60.8(c). Emissions in excess of the emission limits or standards during periods of startup, shutdown, and malfunction are considered deviations from the applicable emission limits or standards. [40 CFR §60.5220(a)(1)]
2) The permittee must document that the dry sludge burned during the performance test is representative of the sludge burned under normal operating conditions by: [40 CFR §60.5220(a)(2)]
   a) Maintaining a log of the quantity of sewage sludge burned during the performance test by continuously monitoring and recording the average hourly rate that sewage sludge is fed to the incinerator. [40 CFR §60.5220(a)(2)(i)]
   b) Maintaining a log of the moisture content of the sewage sludge burned during the performance test by taking grab samples of the sewage sludge fed to the incinerator for each 8 hour period that testing is conducted. [40 CFR §60.5220(a)(2)(ii)]
3) All performance tests must be conducted using the test methods, minimum sampling volume, observation period, and averaging method specified in Table 3 to this subpart. [40 CFR §60.5220(a)(3)]
4) Method 1 at 40 CFR Part 60, Appendix A must be used to select the sampling location and number of traverse points. [40 CFR §60.5220(a)(4)]
5) Method 3A or 3B at 40 CFR Part 60, Appendix A-2 must be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B at 40 CFR Part 60, Appendix A-2 must be used simultaneously with each method. [40 CFR §60.5220(a)(5)]

6) All pollutant concentrations must be adjusted to 7 percent oxygen using the following equation (Equation 1 of 40 CFR §60.5220): [40 CFR §60.5220(a)(6)]

$$C_{adj} = C_{meas}\left[\frac{(20.9 - 7)}{(20.9 - \%O_2)}\right] \qquad \text{(Equation 1)}$$

Where:

$C_{adj}$ = Pollutant concentration adjusted to 7 percent oxygen.
$C_{meas}$ = Pollutant concentration measured on a dry basis.
(20.9 − 7) = 20.9 percent oxygen − 7 percent oxygen (defined oxygen correction basis).
20.9 = Oxygen concentration in air, percent.
%O2 = Oxygen concentration measured on a dry basis, percent.

7) Performance tests must be conducted and data reduced in accordance with the test methods and procedures contained in Subpart MMMM of 40 CFR Part 60 unless the Director does one of the following: [40 CFR §60.5220(a)(7)]
   a) Specifies or approves, in specific cases, the use of a method with minor changes in methodology. [40 CFR §60.5220(a)(7)(i)]
   b) Approves the use of an equivalent method. [40 CFR §60.5220(a)(7)(ii)]
   c) Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance. [40 CFR §60.5220(a)(7)(iii)]
   d) Waives the requirement for performance tests because the permittee has demonstrated by other means to the Director's satisfaction that the affected SSI unit is in compliance with the standard. [40 CFR §60.5220(a)(7)(iv)]
   e) Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph is construed to abrogate the Director's authority to require testing under section 114 of the Clean Air Act. [40 CFR §60.5220(a)(7)(v)]
8) The permittee must provide the Director at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Director the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, *etc.*) in conducting the scheduled performance test, the permittee must notify the Director as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Director by mutual agreement. [40 CFR §60.5220(a)(8)]
9) The permittee must provide, or cause to be provided, performance testing facilities as follows: [40 CFR §60.5220(a)(9)]
   a) Sampling ports adequate for the test methods applicable to the SSI unit, as follows: [40 CFR §60.5220(a)(9)(i)]
      i) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures. [40 CFR §60.5220(a)(9)(i)(A)]
      ii) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures. [40 CFR §60.5220(a)(9)(i)(B)]
   b) Safe sampling platform(s). [40 CFR §60.5220(a)(9)(ii)]
   c) Safe access to sampling platform(s). [40 CFR §60.5220(a)(9)(iii)]
   d) Utilities for sampling and testing equipment. [40 CFR §60.5220(a)(9)(iv)]
10) Unless otherwise specified in this subpart, each performance test must consist of three separate runs using the applicable test method. Each run must be conducted for the time and under the conditions specified in the applicable standard. Compliance with each emission limit must be determined by calculating the arithmetic mean of the three runs. In the event that a sample is accidentally lost or conditions occur in which

one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the permittee's control, compliance may, upon the Director's approval, be determined using the arithmetic mean of the results of the two other runs. [40 CFR §60.5220(a)(10)]

11) In lieu of the operating requirements of 40 CFR §60.5220(a)(11), the permittee may use the metrics defined in Attachment A to serve as a platform for evaluating operating conditions of each incinerator during each test run specified in 40 CFR §60.5220(a)(1). The metrics should be meaningful and proportionate, and modified as necessary to achieve its purpose. Therefore, when data is considered, the Program and Installation should consider its meaning and how it relates to the objective. If metrics data indicate a condition of deviation, the permittee shall provide an account of the conditions surrounding the performance test event and submit it with the performance test report for that test event.
12) Bypass stack. Use of the bypass stack at any time that sewage sludge is being charged to the SSI unit is an emissions standards deviation for all pollutants listed in Table 3 to Subpart MMMM of 40 CFR Part 60. The use of the bypass stack during a performance test invalidates the performance test.
[40 CFR §60.5220(d)]

***Air Pollution Control Device Inspections:***

The permittee must conduct air pollution control device inspections that include, at a minimum, the following: [40 CFR §60.5220(c)]

1) Inspect air pollution control device(s) for proper operation. [40 CFR §60.5220(c)(1)]
2) Generally observe that the equipment is maintained in good operating condition. [40 CFR §60.5220(c)(2)]
3) Develop a site-specific monitoring plan according to the requirements in 40 CFR §60.5200. This requirement also applies to the permittee if the permittee petitions the EPA Administrator for alternative monitoring parameters under 40 CFR §60.13(i). [40 CFR §60.5220(c)(3)]

***Monitoring and Calibration Requirements for Compliance with Operating Limits:***

1) The permittee must install, operate, calibrate, and maintain the continuous parameter monitoring systems according to the requirements in 40 CFR §60.5225 (a)(1) and (2). [40 CFR §60.5225(a)]
   a) The permittee must meet the following general requirements for flow, pressure, pH, and operating temperature measurement devices: [40 CFR §60.5225(a)(1)]
      i) The permittee must collect data using the continuous monitoring system at all times the affected SSI unit is operating and at the intervals specified in 40 CFR §60.5225(a)(1)(ii), except for periods of monitoring system malfunctions that occur during periods specifically defined in 40 CFR §60.5200(a)(7)(i), repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments). Any such periods that the permittee does not collect data using the continuous monitoring system constitute a deviation from the monitoring requirements and must be reported in a deviation report. [40 CFR §60.5225(a)(1)(i)]
      ii) The permittee must collect continuous parameter monitoring system data in accordance with 40 CFR §60.13(e)(2). [40 CFR §60.5225(a)(1)(ii)]
      iii) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities must not be included in calculations used to report emissions or operating levels. Any such periods must be reported in the permittee's annual deviation report. [§60.5225(a)(1)(iii)]
      iv) Any data collected during periods when the monitoring system is out of control as specified in 40 CFR §60.5200(a)(7)(i) must not be included in calculations used to report emissions or operating levels. Any such periods that do not coincide with a monitoring system malfunction, as defined in 40 CFR §60.5250, constitute a deviation from the monitoring requirements and must be reported in a deviation report. [40 CFR §60.5225 (a)(1)(iv)]

v) The permittee must use all the data collected during all periods except those periods specified in paragraphs 40 CFR §60.5225(a)(1)(iii) and (a)(1)(iv) in assessing the operation of the control device and associated control system. [40 CFR §60.5225 (a)(1)(v)]
vi) Record the results of each inspection, calibration, and validation check. [40 CFR §60.5225(a)(1)(vi)]

b) The permittee must operate and maintain the continuous monitoring system according to the monitoring plan required under 40 CFR §60.4880. [40 CFR §60.5225(a)(2)]

2) The permittee must operate and maintain the continuous parameter monitoring systems specified in 40 CFR §60.5225(a) and (b) in continuous operation according to the permittee's monitoring plan required under 40 CFR §60.4880. [40 CFR §60.5225(c)]
3) If the permittee's SSI unit has a bypass stack, the permittee must install, calibrate (to manufacturers' specifications), maintain, and operate a device or method for measuring the use of the bypass stack including date, time, and duration. [40 CFR §60.5225(d)]

## Permit Condition (EP03 through EP06) - 008

10 CSR 10-6.191 Sewage Sludge Incinerators
10 CSR 10-6.191(4) Reporting and Record Keeping — 40 CFR §§60.5230 through 60.5235

***Recordkeeping:***

The permittee must maintain the items (as applicable) specified 40 CFR §60.5230(a) through (n) (listed below) for a period of at least 5 years. All records must be available on site in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by the Director. [40 CFR §60.5230]

1) Date. Calendar date of each record. [40 CFR §60.5230(a)]
2) *Increments of progress*. Copies of the final control plan and any additional notifications, reported under 40 CFR §60.5235. [40 CFR §60.5230(b)]
3) *Operator Training*. Documentation of the operator training procedures and records specified in 40 CFR §60.5230(c)(1) through (c)(4). The permittee must make available and readily accessible at the facility at all times for all SSI unit operators the following documentation specified in 40 CFR §60.5230(c)(1). [40 CFR §60.5230(c)]
   a) Documentation of the following operator training procedures and information: [40 CFR §60.5230(c)(1)]
      i) Summary of the applicable standards under Subpart MMMM of 40 CFR Part 60. [40 CFR §60.5230(c)(1)(i)]
      ii) Procedures for receiving, handling, and feeding sewage sludge. [40 CFR §60.5230(c)(1)(ii)]
      iii) Incinerator startup, shutdown, and malfunction preventative and corrective procedures. [§60.5230(c)(1)(iii)]
      iv) Procedures for maintaining proper combustion air supply levels. [40 CFR §60.5230(c)(1)(iv)]
      v) Procedures for operating the incinerator and associated air pollution control systems within the standards established under this subpart. [40 CFR §60.5230(c)(1)(v)]
      vi) Monitoring procedures for demonstrating compliance with the incinerator operating limits. [40 CFR §60.5230(c)(1)(vi)]
      vii) Reporting and recordkeeping procedures. [40 CFR §60.5230(c)(1)(vii)]
      viii) Procedures for handling ash. [40 CFR §60.5230(c)(1)(viii)]
      ix) A list of the materials burned during the performance test, if any in addition to sewage sludge. [40 CFR §60.5230(c)(1)(ix)]

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. [40 CFR §60.5230(c)(1)(x)]

b) Records showing the names of SSI unit operators and other plant personnel who may operate the unit according to the provisions of 40 CFR 40 CFR §60.5155(a), as follows: [40 CFR §60.5230(c)(2)]
   i) Records showing the names of SSI unit operators and other plant personnel who have completed review of the information in 40 CFR §60.5230(c)(1) as required by 40 CFR §60.5160(b), including the date of the initial review and all subsequent annual reviews. [40 CFR §60.5230(c)(2)(i)]
   ii) Records showing the names of the SSI operators who have completed the operator training requirements under 40 CFR 40 CFR §60.5130, met the criteria for qualification under §60.5140, and maintained or renewed their qualification under 40 CFR §60.5145 or §60.5150. Records must include documentation of training, including the dates of their initial qualification and all subsequent renewals of such qualifications. [40 CFR §60.5230(c)(2)(ii)]

c) Records showing the periods when no qualified operators were accessible for more than 8 hours, but less than 2 weeks, as required in 40 CFR §60.5155(a). [40 CFR §60.5230(c)(2)]

d) Records showing the periods when no qualified operators were accessible for 2 weeks or more along with copies of reports submitted as required in 40 CFR §60.5155(b). [40 CFR §60.5230(c)(3)]

4) *Air pollution control device inspections*. 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 timeframe established by the Director. [40 CFR §60.5230(d)]

5) *Performance test reports*. [40 CFR §60.5230(e)]
   a) The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and standards and/or to establish operating limits, as applicable. [40 CFR §60.5230(e)(1)]
   b) Retain a copy of the complete performance test report, including calculations. [40 CFR §60.5230(e)(2)]
   c) Keep a record of the hourly dry sludge feed rate measured during performance test runs as specified in 40 CFR §60.5220(a)(2)(i). [40 CFR §60.5230(e)(3)]
   d) Keep any necessary records to demonstrate that the performance test was conducted under conditions representative of normal operations, including a record of the moisture content measured as required in 40 CFR §60.5220(a)(2)(ii) for each grab sample taken of the sewage sludge burned during the performance test. [40 CFR §60.5230(e)(4)]

6) *Continuous monitoring data*. Records of the following data, as applicable: [40 CFR §60.5230(f)]
   a) For continuous parameter monitoring systems: [40 CFR §60.5230(f)(3)]
      i) All 1-hour average values recorded for the following operating parameters, as applicable: [40 CFR §60.5230(f)(3)(i)]
         (1) Combustion chamber operating temperature. [40 CFR §60.5230(f)(3)(i)(A)]
         (2) Pressure drop across each wet scrubber system and liquid flow rate to each wet scrubber used to comply with the emission limit in Table 3 to Subpart MMMM of 40 CFR Part 60 for particulate matter, cadmium, or lead, and scrubber liquid flow rate and scrubber liquid pH for each wet scrubber used to comply with an emission limit in Table 3 to this subpart for sulfur dioxide or hydrogen chloride. [40 CFR §60.5230(f)(3)(i)(B)]
      ii) All daily average values recorded for the feed rate and moisture content of the sewage sludge fed to the sewage sludge incinerator, monitored and calculated as specified in 40 CFR §60.5170(f). [40 CFR §60.5230(f)(3)(ii)]

7) *Deviation Reports*. Records of any deviation reports submitted under 40 CFR §60.5235(e) and (f): [40 CFR §60.5230(h)]
8) *Equipment specifications and operation and maintenance requirements*. Equipment specifications and related operation and maintenance requirements received from vendors for the incinerator, emission controls, and monitoring equipment. [40 CFR §60.5230(i)]
9) *Inspections, calibrations, and validation checks of monitoring devices*. Records of inspections, calibration, and validation checks of any monitoring devices as required under 40 CFR §§60.5220 and 60.5225. [40 CFR §60.5230(j)]
10) *Monitoring plan and performance evaluations for continuous monitoring systems*. Records of the monitoring plans required under 40 CFR §60.5200. [40 CFR §60.5230(k)]
11) *Less frequent testing*. If, consistent with 40 CFR §5205(a)(3), the permittee elects to conduct performance tests less frequently than annually, the permittee must keep annual records that document that the permittee's emissions in the two previous consecutive years were at or below 75 percent of the applicable emission limit in Table 1 or 2 to Subpart MMMM of 40 CFR Part 60, 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. [40 CFR §60.5230(l)]
12) *Use of bypass stack*. Records indicating use of the bypass stack, including dates, times, and durations as required under 40 CFR §60.5225(d). [40 CFR §60.5230(m)]
13) If a malfunction occurs, the permittee must keep a record of the information submitted in the permittee's annual report in 40 CFR §60.5235(c)(16). [40 CFR §60.5230(n)]

***Reporting:***

The permittee must submit the reports specified in 40 CFR §60.5235 (a) through (i). See Table 6 to Subpart MMMM of 40 CFR Part 60 for a summary of these reports.

1) *Increments of progress report*. If the permittee plans to achieve compliance more than 1 year following the effective date of state plan approval, the permittee must submit the following reports, as applicable: [40 CFR §60.5235(a)]
   a) A final control plan as specified in §§60.5085(a) and 60.5110. [40 CFR §60.5235(a)(1)]
   b) The permittee must submit the permittee's notification of achievement of increments of progress no later than 10 business days after the compliance date for the increment as specified in §§60.5095 and 60.5100. [40 CFR §60.5235(a)(2)]
   c) If the permittee fails to meet an increment of progress, the permittee must submit a notification to the Director postmarked within 10 business days after the date for that increment, as specified in 40 CFR §60.5105. [§60.5235(a)(3)]
   d) If the permittee plans to close the permittee's SSI unit rather than comply with the state plan, the permittee must submit a closure notification as specified in 40 CFR §60.5125. [40 CFR §60.5235(a)(4)]
2) *Initial compliance report*. The permittee must submit the following information no later than 60 days following the initial performance test. [40 CFR §60.5235(b)]
   a) Company name, physical address, and mailing address. [40 CFR §60.5235(b)(1)]
   b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. [40 CFR §60.5235(b)(2)]
   c) Date of report. [40 CFR §60.5235(b)(3)]
   d) The complete test report for the initial performance test results obtained by using the test methods specified in Table 3 to Subpart MMMM of 40 CFR Part 60. [40 CFR §60.5235(b)(4)]
   e) If an initial performance evaluation of a continuous monitoring system was conducted, the results of that initial performance evaluation. [40 CFR §60.5235(b)(5)]
   f) 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. [40 CFR §60.5235(b)(6)]

g) The results of the initial air pollution control device inspection required in40 CFR §60.5195, including a description of repairs. [40 CFR §60.5235(b)(8)]
h) The site-specific monitoring plan required under §60.5200, at least 60 days before the permittee's initial performance evaluation of the continuous monitoring system. [40 CFR §60.5235(b)(9)]
i) The site-specific monitoring plan for the ash handling system required under §60.5200, at least 60 days before the initial performance test to demonstrate compliance with the fugitive ash emission limit. [40 CFR §60.5235(b)(10)]

3) *Annual compliance report*. The permittee must submit an annual compliance report that includes the items listed in 40 CFR §60.5235(c)(1) through (c)(16) (listed below) for the reporting period specified in 40 CFR §60.5235(c)(3). The permittee must submit the first annual compliance report no later than 12 months following the submission of the initial compliance report in 40 CFR §60.5235(b). The permittee must submit subsequent annual compliance reports no more than 12 months following the previous annual compliance report. (The permittee may be required to submit these reports (or additional compliance information) more frequently by the title V operating permit required in 40 CFR §60.5240.) [40 CFR §60.5235(c)]
   a) Company name, physical address, and mailing address. [40 CFR §60.5235(c)(1)]
   b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. [40 CFR §60.5235(c)(2)]
   c) Date of report and beginning and ending dates of the reporting period. [40 CFR §60.5235(c)(3)]
   d) If a performance test was conducted during the reporting period, the results of that performance test. [40 CFR §60.5235(c)(4)]
      i) If operating limits were established during the performance test, include the value for each operating limit and, as applicable, the method used to establish each operating limit, including calculations. [40 CFR §60.5235(c)(4)(i)]
      ii) If activated carbon is used during the performance test, include the type of activated carbon used. [40 CFR §60.5235(c)(4)(ii)]
   e) For each pollutant and operating parameter recorded using a continuous monitoring system, the highest average value and lowest average value recorded during the reporting period, as follows: [40 CFR §60.5235(c)(5)]
      i) For continuous parameter monitoring systems, report the following values: [40 CFR §60.5235(c)(5)(ii)]
         (1) For all operating parameters except scrubber liquid pH, the highest and lowest 12-hour average values. [40 CFR §60.5235(c)(5)(ii)(A)]
         (2) For scrubber liquid pH, the highest and lowest 3-hour average values. [40 CFR §60.5235(c)(5)(ii)(B)]
   f) If there are no deviations during the reporting period from any emission limit, emission standard, or operating limit that applies to the permittee, a statement that there were no deviations from the emission limits, emission standard, or operating limits. [40 CFR §60.5235(c)(6)]
   g) If a performance evaluation of a continuous monitoring system was conducted, the results of that performance evaluation. If new operating limits were established during the performance evaluation, include the permittee's calculations for establishing those operating limits. [40 CFR §60.5235(c)(8)]
   h) If the permittee elects to conduct performance tests less frequently as allowed in 40 CFR §60.5205(a)(3) and did not conduct a performance test during the reporting period, the permittee must include the dates of the last two performance tests, a comparison of the emission level the permittee achieved in the last two performance tests to the 75 percent emission limit threshold specified in 40 CFR §60.5205(a)(3), and a statement as to whether there have been any process changes and whether the process change resulted in an increase in emissions. [40 CFR §60.5235(c)(9)]

i) Documentation of periods when all qualified sewage sludge incineration unit operators were unavailable for more than 8 hours, but less than 2 weeks. [40 CFR §60.5235(c)(10)]
j) Results of annual air pollution control device inspections recorded under 40 CFR §60.5230(d) for the reporting period, including a description of repairs. [40 CFR §60.5235(c)(11)]
k) If there were no periods during the reporting period when the permittee's continuous monitoring systems had a malfunction, a statement that there were no periods during which the permittee's continuous monitoring systems had a malfunction. [40 CFR §60.5235(c)(12)]
l) If there were no periods during the reporting period when a continuous monitoring system was out of control, a statement that there were no periods during which the permittee's continuous monitoring systems were out of control. [40 CFR §60.5235(c)(13)]
m) If there were no operator training deviations, a statement that there were no such deviations during the reporting period. [40 CFR §60.5235(c)(14)]
n) If the permittee did not make revisions to the permittee's site-specific monitoring plan during the reporting period, a statement that the permittee did not make any revisions to the permittee's site-specific monitoring plan during the reporting period. If the permittee made revisions to the permittee's site-specific monitoring plan during the reporting period, a copy of the revised plan. [40 CFR §60.5235(c)(15)]
o) If the permittee had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction that occurred during the reporting period and that caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with §60.11(d), including actions taken to correct a malfunction. [40 CFR §60.5235(c)(16)]

4) *Deviation reports*. [40 CFR §60.5235(d)]
a) The permittee must submit a deviation report if: [40 CFR §60.5235(d)(1)]
i) Any recorded operating parameter level, based on the averaging time specified in Table 4 to Subpart MMMM of 40 CFR Part 60, is above the maximum operating limit or below the minimum operating limit established under this subpart. [40 CFR §60.5235(d)(1)(i)]
ii) There are visible emissions of combustion ash from an ash conveying system for more than 5 percent of the hourly observation period. [40 CFR §60.5235(d)(1)(iv)]
iii) A performance test was conducted that deviated from any emission limit in Table 3 to Subpart MMMM of 40 CFR Part 60. [40 CFR §60.5235(d)(1)(v)]
iv) The permittee had a malfunction that caused or may have caused any applicable emission limit to be exceeded. [40 CFR §60.5235(d)(1)(vii)]
b) 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 the permittee collected during the second half of the calendar year (July 1 to December 31). [40 CFR §60.5235(d)(2)]
c) For each deviation where the permittee is using a continuous monitoring system to comply with the operating limit, report the items described in 40 CFR §60.5235 (d)(3)(i) through (d)(3)(viii) (listed below). [40 CFR §60.5235(d)(3)]
i) Company name, physical address, and mailing address. [40 CFR §60.5235(d)(3)(i)]
ii) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. [40 CFR §60.5235(d)(3)(ii)]
iii) The calendar dates and times the permittee's unit deviated from the emission limits, emission standards, or operating limits requirements. [40 CFR §60.5235(d)(3)(iii)]
iv) The averaged and recorded data for those dates. [40 CFR §60.5235(d)(3)(iv)]
v) Duration and cause of each deviation from the following: [40 CFR §60.5235(d)(3)(v)]

(1) Emission limits, emission standards, operating limits, and the permittee's corrective actions. [40 CFR §60.5235(d)(3)(v)(A)]
(2) Bypass events and the permittee's corrective actions. [40 CFR §60.5235(d)(3)(v)(B)]

vi) Dates, times, and causes for monitor downtime incidents. [40 CFR §60.5235(d)(3)(vi)]
vii) A copy of the operating parameter monitoring data during each deviation and any test report that documents the emission levels. [40 CFR §60.5235(d)(3)(vii)]
viii) If there were periods during which the continuous monitoring system malfunctioned or was out of control, the permittee must include the following information for each deviation from an emission limit or operating limit: [40 CFR §60.5235(d)(3)(viii)]
(1) The date and time that each malfunction started and stopped. [40 CFR §60.5235(d)(3)(viii)(A)]
(2) The date, time, and duration that each continuous monitoring system was inoperative, except for zero (low-level) and high-level checks. [40 CFR §60.5235(d)(3)(viii)(B)]
(3) The date, time, and duration that each continuous monitoring system was out of control, including start and end dates and hours and descriptions of corrective actions taken. [40 CFR §60.5235(d)(3)(viii)(C)]
(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction, during a period when the system as out of control, or during another period. [40 CFR §60.5235(d)(3)(viii)(D)]
(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period. [40 CFR §60.5235(d)(3)(viii)(E)]
(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes. [40 CFR §60.5235(d)(3)(viii)(F)]
(7) A summary of the total duration of continuous monitoring system downtime during the reporting period, and the total duration of continuous monitoring system downtime as a percent of the total operating time of the SSI unit at which the continuous monitoring system downtime occurred during that reporting period. [40 CFR §60.5235(d)(3)(viii)(G)]
(8) An identification of each parameter and pollutant that was monitored at the SSI unit. [§60.5235(d)(3)(viii)(H)]
(9) A brief description of the SSI unit. [40 CFR §60.5235(d)(3)(viii)(I)]
(10) A brief description of the continuous monitoring system. [40 CFR §60.5235(d)(3)(viii)(J)]
(11) The date of the latest continuous monitoring system certification or audit. [40 CFR §60.5235(d)(3)(viii)(K)]
(12) A description of any changes in continuous monitoring system, processes, or controls since the last reporting period. [40 CFR §60.5235(d)(3)(viii)(L)]

d) For each deviation where the permittee is not using a continuous monitoring system to comply with the associated emission limit or operating limit, report the following items: [40 CFR §60.5235(d)(4)]
i) Company name, physical address, and mailing address. [40 CFR §60.5235(d)(4)(i)]
ii) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. [40 CFR §60.5235(d)(4)(ii]
iii) The total operating time of each affected source during the reporting period. [40 CFR §60.5235(d)(4)(iii)]
iv) The calendar dates and times the permittee's unit deviated from the emission limits, emission standards, or operating limits requirements. [40 CFR §60.5235(d)(4)(iv)]
v) The averaged and recorded data for those dates. [40 CFR §60.5235(d)(4(v))]
vi) Duration and cause of each deviation from the following: [40 CFR §60.5235(d)(4)(vi)]

(1) Emission limits, emission standards, operating limits, and the permittee's corrective actions. [40 CFR §60.5235(d)(4)(vi)(A)]
(2) Bypass events and the permittee's corrective actions. [40 CFR §60.5235(d)(4)(vi)(B)]

vii) A copy of any performance test report that showed a deviation from the emission limits or standards. [40 CFR §60.5235(d)(4)(vii)]

viii) A brief description of any malfunction reported in §60.5235(d)(1)(vii), including a description of actions taken during the malfunction to minimize emissions in accordance with §60.11(d) and to correct the malfunction. [40 CFR §60.5235(d)(4)(viii)]

5) *Qualified operator deviation*. [40 CFR §60.5235(e)]
   a) If all qualified operators are not accessible for 2 weeks or more, the permittee must take the two actions in 40 CFR §60.5235(e)(1)(i) and (e)(1)(ii) (listed below). [40 CFR §60.5235(e)(1)]
      i) Submit a notification of the deviation within 10 days that includes the three items in 40 CFR §60.5235 (e)(1)(i)(A) through (e)(1)(i)(C) (listed below). [40 CFR §60.5235(e)(1)(i)]
         (1) A statement of what caused the deviation. [40 CFR §60.5235(e)(1)(i)(A)]
         (2) A description of actions taken to ensure that a qualified operator is accessible. [40 CFR §60.5235(e)(1)(i)(B)]
         (3) The date when the permittee anticipates that a qualified operator will be available. [40 CFR §60.5235(e)(1)(i)(C)]
      ii) Submit a status report to the Director every 4 weeks that includes the three items in 40 CFR §60.5235 (e)(1)(ii)(A) through (e)(1)(ii)(C) (listed below). [40 CFR §60.5235(e)(1)(ii)]
         (1) A description of actions taken to ensure that a qualified operator is accessible. [40 CFR §60.5235(e)(1)(ii)(A)]
         (2) The date when the permittee anticipates that a qualified operator will be accessible. [40 CFR §60.5235(e)(1)(ii)(B)]
         (3) Request for approval from the Director to continue operation of the SSI unit. [40 CFR §60.5235(e)(1)(ii)(C)]
   b) If the permittee's unit was shut down by the Director, under the provisions of 40 CFR §60.5155(b)(2)(i), due to a failure to provide an accessible qualified operator, the permittee must notify the Director within five days of meeting 40 CFR §60.5155(b)(2)(ii) that the permittee is resuming operation. [40 CFR §60.5235(e)(2)]
6) *Notification of a force majeure*. If a force majeure is about to occur, occurs, or has occurred for which the permittee intends to assert a claim of force majeure: [40 CFR §60.5235(f)]
   a) The permittee must notify the Director, in writing as soon as practicable following the date the permittee first knew, or through due diligence, should have known that the event may cause or caused a delay in conducting a performance test beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification must occur as soon as practicable. [40 CFR §60.5235(f)(1)]
   b) The permittee must provide to the Director a written description of the force majeure event and a rationale for attributing the delay in conducting the performance test beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the permittee proposes to conduct the performance test. [40 CFR §60.5235(f)(2)]
7) *Other notifications and reports required*. The permittee must submit other notifications as provided by 40 CFR §60.7 and as follows: [40 CFR §60.5235(g)]
   a) The permittee must notify the Director 1 month before starting or stopping use of a continuous monitoring system for determining compliance with any emission limit. [40 CFR §60.5235(g)(1)]
   b) The permittee must notify the Director at least 30 days prior to any performance test conducted to comply with the provisions of this subpart, to afford the Director the opportunity to have an observer present. [40 CFR §60.5235(g)(2)]

c) As specified in 40 CFR §60.5220(a)(8), the permittee must notify the Director at least 7 days prior to the date of a rescheduled performance test for which notification was previously made in 40 CFR §60.5235(g)(2). [40 CFR §60.5235(g)(3)]

8) *Report submission form*. [40 CFR §60.5235(h)]
   a) The permittee must submit initial, annual, and deviation reports electronically or in paper format, postmarked on or before the submittal due dates. [40 CFR §60.5235(h)(1)]
   b) As of January 1, 2012 and within 60 days after the date of completing each performance test, as defined in 40 CFR §63.2, conducted to demonstrate compliance with Subpart MMMM of 40 CFR Part 60, the permittee must submit relative accuracy test audit (i.e., reference method) data and performance test (i.e., compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (see http://www.epa.gov/ttn/chief/ert/ert_tool.html/) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database. [40 CFR §60.5235(h)(2)]
9) *Changing report dates*. If the Director agrees, the permittee may change the semiannual or annual reporting dates. See 40 CFR §60.19(c) for procedures to seek approval to change the permittee's reporting date. [40 CFR §60.5235(i)]

| **EP09 - Ash Handling System** | | |
|---|---|---|
| Emission Unit | Description | Manufacturer/ Model # |
| EP09 | Wet Ash Conveying (constructed 1967)<br>Air Pollution Control – Venturi Scrubber and Mist Eliminator (CD29 and CD30) | United Conveyor |

## Permit Condition (EP09) - 001

10 CSR 10-6.191 Sewage Sludge Incinerators
40 CFR Part 60 Subpart MMMM Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units.

***Emission Limitation and Standards:***

Pursuant to 40 CFR §60.5165, the permittee must meet the emission limits and standards specified in Table 3 to 40 CFR Part 60, Subpart MMMM for ash handling system by the final compliance date under the approved state plan, Federal plan, or delegation, as applicable. The emission limits and standards apply at all times the ash handling system is operating and during periods of malfunction. [40 CFR §60.5170]

Table 3 to Subpart MMMM of Part 60 —Emission Limits and Standards

| For the air pollutant | The permittee must meet this emission limit | Using these averaging methods and minimum sampling volumes or durations | And determine compliance using this method |
|---|---|---|---|
| Fugitive emissions from ash handling | Visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) for no more than 5 percent of the hourly observation period | Three 1-hour observation periods | Visible emission test (Method 22 of Appendix A-7 of 40 CFR Part 60). |

***Operating Limits and Requirements:***

The permittee must meet the operating limits and requirements specified in 40 CFR §60.5170 (d) (listed below), according to the schedule specified in 40 CFR §60.5170 (e). The permittee must comply with the requirements in 40 CFR §60.5170 (g) for meeting any new operating limits, re-established in 40 CFR §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). [40 CFR §60.5170]

**Table 4 to Subpart MMMM of Part 60—Operating Parameters for Existing Sewage Sludge Incineration Units[a]**

| For these operating parameters | The permittee must establish these operating limits | And monitor using these minimum frequencies | | |
|---|---|---|---|---|
| | | Data measurement | Data recording | Data averaging period for compliance |
| Fugitive emissions from ash handling | Site-specific operating requirements | Not applicable | Not applicable | Not applicable. |

1) The permittee must meet the operating requirements in the permittee's site-specific fugitive emission monitoring plan, submitted as specified in 40 CFR §60.5200(d) to ensure that the ash handling system will meet the emission standard for fugitive emissions from ash handling. [40 CFR §60.5170(d)]
2) The permittee must meet the operating limits and requirements specified in 40 CFR §60.5170(d) by the final compliance date under the approved state plan, Federal plan, or delegation, as applicable. [40 CFR §60.5170(e)]
3) For the operating limits and requirements specified in 40 CFR §60.5170 (d), the permittee must meet any new operating limits and requirements, re-established according to 40 CFR §60.5210(d). [40 CFR §60.5170(g)]

## Permit Condition (EP09) - 002

10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes
40 CFR Part 64 Compliance Assurance Monitoring (CAM)

***Emission Limitation:***

1) The permittee shall not emit particulate matter in excess of 25.2 lbs/hr from EP09.
2) The permittee shall not cause, allow or permit the emission of particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.

***Monitoring:***

1) The permittee is subject to the CAM plan contained in Attachment E.
2) *CAM Compliance Indicators*: The following CAM Indicators shall be used to monitor the control device (Venturi Scrubber with Mist Eliminator):
   a) Visible Emissions
      i) Visible emissions from the scrubber stack exhaust shall be monitored using EPA Reference Method 22-like procedures on a daily basis to ensure no visible emissions during the operation of this unit. The permittee is only required to take readings when the emission unit is operating and when the weather conditions allow.

b) Pressure Drop
   i) The permittee shall check and document the Venturi scrubber/Mist Eliminator pressure drop daily. The pressure drop across the Venturi scrubber/Mist Eliminator shall be maintained within the range of 1.0 to 10.0 inches of water ($H_2O$).

3) *CAM Compliance Indicator Range*: An excursion is defined as either the presence of visible emissions or as a pressure drop less than 1.0 inch $H_2O$ or a pressure drop greater than 10.0 inches $H_2O$. An excursion of either indicator constitutes an excursion. If visible emissions are present when the pressure drop is within its specified indicator range and no Venturi Scrubber/Mist Eliminator problems are identified as the cause, the pressure drop indicator range shall be re-evaluated by MSD. Excursions trigger an inspection, corrective action, and need to be reported in the next Semiannual Monitoring Report; if an excursion results in excess emissions exceeding one hour, MSD may elect to file a startup, shutdown, and malfunction assertion under 10 CSR 10-6.050 if appropriate to the situation.
4) *Continued operation*: Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities, the permittee shall collect data at all required intervals when the emission unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of 40 CFR Part 64. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [40 CFR §64.7(c)]
5) *Response to exceedances*: [40 CFR §64.7(d)]
   a) Upon detecting an exceedance, the permittee shall restore operation of the emission unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. [40 CFR §64.7(d)(1)]
   b) Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process. [40 CFR §64.7(d)(2)]

***Recordkeeping:***

1) *General Recordkeeping Requirements*:
   a) The permittee shall comply with the recordkeeping requirements specified in 40 CFR §70.6(a)(3)(ii). The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). [40 CFR §64.9(b)(1)]
   b) Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR §64.9(b)(2)]
2) All records shall be maintained for five years.

3) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon their verbal request and presentation of identification.

***Reporting:***

1) *General Reporting Requirements*: The permittee shall submit semi-annual monitoring certified by a responsible official using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III). The report shall include, at a minimum, the following information, as applicable: [§64.9(a)(1) & (2)]
   a) All instances of deviations from permit requirements must be clearly identified;
   b) Prompt reporting of deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken;
   c) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken; [§64.9(a)(2)(i)]
   d) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and [40 CFR §64.9(a)(2)(ii)]
   e) A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring. [40 CFR §64.9(a)(2)(iii)].
2) *Documentation of need for improved monitoring*: If the permittee identifies a failure to achieve compliance with this permit condition for which the approved monitoring did not provide an indication of an exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Air Pollution Control Program and, if necessary, submit a proposed modification to the part 70 permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. [40 CFR §64.7(e)]
3) The permittee shall report to the Air Pollution Control Program, Compliance and Enforcement Section, P. O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any deviations/exceedance of the Emission Limitation.

| EP10 – Underground Gasoline Storage Tank | |
|---|---|
| Emission Unit | Description |
| EP-10 | 1,000 Gallon Underground Gasoline Storage Tank |

## Permit Condition (EP10) - 001

10 CSR 10-5.220 Control of Petroleum Liquid Storage, Loading and Transfer.

***Operational Limitation/Equipment Specifications:***

The permittee shall not cause or permit the transfer of gasoline from a delivery vessel into a gasoline storage tank with a capacity greater than five-hundred (500) gallons and less than or equal to one thousand (1,000) gallons unless — [10 CSR 10-5.220(3)(C)1.]

1) The gasoline storage tank is equipped with a submerged fill pipe extending unrestricted to within six inches (6") of the bottom of the tank, and not touching the bottom of the tank, or the storage tank is equipped with a system that allows a bottom fill condition; [10 CSR 10-5.220(3)(C)1.A.]
2) All storage tank caps and fittings are vapor-tight when gasoline transfer is not taking place; and [10 CSR 10-5.220(3)(C)1.B.]
3) The storage tank is vented via a conduit that is — [10 CSR 10-5.220(3)(C)1.C.]
   a) At least two inches (2") inside diameter; [10 CSR 10-5.220(3)(C)1.C.(I)]
   b) At least twelve feet (12') in height above grade; and [10 CSR 10-5.220(3)(C)1.C.(II)]
   c) Equipped with a pressure/vacuum valve that is CARB certified at three inches water column pressure/eight inches water column vacuum (3"wcp/8"wcv) except when the permittee provides documentation that the vapor recovery is CARB certified for a different valve and will not function properly with a 3"wcp/8"wcv valve. [10 CSR 10-5.220(3)(C)1.C.(III)]

***Reporting:***

The permittee shall report to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedance of any of the terms imposed by this regulation. Any deviations from this permit condition shall also be reported in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

## Permit Condition (EP10) - 002

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart CCCCCC National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

***Emission Limitation:***

40 CFR §63.11116 Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline.

1) The permittee must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following: [40 CFR §63.11116(a)]
   a) Minimize gasoline spills; [40 CFR §63.11116(a)(1)]
   b) Clean up spills as expeditiously as practicable; [40 CFR §63.11116(a)(2)]
   c) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use; [40 CFR §63.11116(a)(3)]

d) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators. [40 CFR §63.11116(a)(4)]

2) The permittee is not required to submit notifications or reports as specified in 40 CFR §63.11125, §63.11126, or Subpart A of 40 CFR Part 63, but the permittee must have records available within 24 hours of a request by the Administrator to document the permittee's gasoline throughput. [40 CFR §63.11116(b)]
3) Portable gasoline containers that meet the requirements of 40 CFR Part 59, Subpart F, *Control of Evaporative Emissions From New and In-Use Portable Fuel Containers*, are considered acceptable for compliance with 40 CFR §63.11116(a)(3). [40 CFR §63.11116(d)]

| **EP14 through EP16 – Sludge Building Boilers** | | |
|---|---|---|
| Emission Unit | Description | Manufacturer/ Model # |
| EP14 | Sludge Building Boiler #1 – 14.65 MMBtu/hr natural gas-fired boiler. (Installed – 1990) | Cleaver Brooks, CB-350 |
| EP15 | Sludge Building Boiler #2 – 14.65 MMBtu/hr natural gas-fired boiler. (Installed – 1990) | |
| EP16 | Sludge Building Boiler #3 – 14.65 MMBtu/hr natural gas-fired boiler. (Installed – 1990) | |

## Permit Condition (EP14 through EP16) - 001

10 CSR 10-6.060 Construction Permits Required
Construction Permit No. 95-05-029A, Issued November 4, 1997

***Emission Limitation:***

1) The permittee must limit the natural gas usage in these boilers (EP14, EP15 and EP16) to less than or equal to 33 million cubic feet in any consecutive 12-month period.
2) The permittee shall operate and maintain all equipment according to the manufacturer's instruction.
3) Personnel shall be qualified to operate and maintain these equipment.

***Monitoring/Record keeping:***

The permittee shall maintain an accurate record of the natural gas usage in the boilers. The permittee shall record monthly and running 12-month totals of natural gas usage. The permittee shall also keep records of equipment maintenance.

***Reporting:***

The permittee shall report to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedance of any of the terms imposed by this regulation. Any deviations from this permit condition shall also be reported in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

## Permit Condition (EP14 through EP16) - 002

10 CSR 10-6.070 New Source Performance Regulations
40 CFR Part 60 Subpart Dc
Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

***Emission Limitation:***
Not applicable

***MonitoringRecord keeping/Reporting:***
The permittee shall record and maintain records of the amounts of fuel combusted during each calendar month. [40 CFR §60.48c(g)(2)]

**EP18 – Pump Station Boilers**
**EP19 – Primary Control Building Boiler**
**EP20 – Administrative Building Boilers**
**EP22 – Trickling Filter Pump Station Boilers**

| Emission Unit | Description | Manufacturer/ Model # |
|---|---|---|
| EP18 | Pump Station Boilers (2) – 7.32 MMBtu/hr (each) natural gas-fired boilers. | Cleaver Brooks |
| EP19 | Primary Control Building Boiler – 0.15 MMBtu/hr natural gas-fired boiler. | Hydrotherm/ AM150 |
| EP20 | Administration Building Boilers (2) – 1.35 MMBtu/hr (each) natural gas-fired boilers. | Wcil McLain/ BG 688WF |
| EP22 | Trickling Filter Pump Station Boiler – 1.3 MMBtu/hr natural gas-fired boiler. | Burnham/ 4FW-127-40-G-6P |

## Permit Condition (EP18 through EP20) - 001 and Permit Condition (EP22) - 001

10 CSR 10-6.060 Construction Permits Required
Construction Permit No. 95-05-029A, Issued November 4, 1997

***Emission Limitation:***
1) Natural gas usage in these boilers (EP18, EP19, EP20 and EP22) shall not exceed 60 million cubic feet in any consecutive 12-month period.
2) The permittee shall operate and maintain all equipment according to the manufacturer's instruction.
3) Personnel shall be qualified to operate and maintain the equipment.

***Monitoring/Record keeping:***
The permittee shall maintain an accurate record of the natural gas usage in the boilers. The permittee shall record monthly and running 12-month totals of natural gas usage. The permittee shall also keep records of equipment maintenance.

***Reporting:***
The permittee shall report to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedance of any of the terms imposed by this regulation. Any deviations from this permit condition shall also be reported in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

| EP23 – Biofilter | |
|---|---|
| Emission Unit | Description |
| EP23 | Biofilter to control hydrogen sulfide ($H_2S$) emissions from the wastewater treatment plant. Installed: 1996 |

## Permit Condition (EP23) - 001

10 CSR 10-6.060 Construction Permits Required
Construction Permit No. 95-05-069, Issued March 1, 19967

***Emission Limitation:***

1) The permittee must limit hydrogen sulfide ($H_2S$) emissions from the biofilter system to less than or ten (10) tons in any 12-month period.
2) The permittee shall operate and maintain all equipment according to the manufacturer's instructions.

***Monitoring:***

The permittee shall measure the concentration of hydrogen sulfide as frequently as necessary to characterize the efficiency of the biofilter system and the amount of the $H_2S$ emitted in to the ambient air. The concentration of $H_2S$ shall be determined using a Hydrogen Sulfide Analyzing instrument calibrated using National Institute of Standards and Technology (NIST) traceable $H_2S$ gas.

***Recordkeeping:***

The permittee shall keep accurate, easily understood, up to date records of $H_2S$ concentrations and any other parameters necessary to determine:

1) The quantity of $H_2S$ gas released into the ambient air.
2) The efficiency of the biofilter system in removing $H_2S$ from the clarifiers. These records shall be kept as a month to month moving average indicating hydrogen sulfide emissions during the previous 12 months.

***Reporting:***

The permittee shall report to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedance of any of the terms imposed by this regulation. Any deviations from this permit condition shall also be reported in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

# IV. Core Permit Requirements

The installation shall comply with each of the following regulations or codes. Consult the appropriate sections in the Code of Federal Regulations (CFR), the Code of State Regulations (CSR), and local ordinances for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued. The following are only excerpts from the regulation or code, and are provided for summary purposes only.

**City of St. Louis Ordinance 68657, §16 Open Burning Restrictions**

1) No person shall cause, suffer, allow or permit the open burning of refuse.
2) No person shall conduct, cause or permit the conduct of a salvage operation by open burning.
3) No person shall conduct, cause or permit the disposal of trade waste by open burning.
4) No person shall cause or permit the open burning of leaves, trees or the byproducts therefrom, grass, or other vegetation.
5) It shall be prima-facie evidence that the person who owns or controls property on which open burning occurs, has caused or permitted said open burning.

**10 CSR 10-6.050 Start-up, Shutdown and Malfunction Conditions**

1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days, in writing, the following information: [10 CSR 10-6.050(3)(A)]
   a) Name and location of installation;
   b) Name and telephone number of person responsible for the installation;
   c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
   d) Identity of the equipment causing the excess emissions;
   e) Time and duration of the period of excess emissions;
   f) Cause of the excess emissions;
   g) Air pollutants involved;
   h) Estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
   i) Measures taken to mitigate the extent and duration of the excess emissions; and
   j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
2) The permittee shall submit the paragraph 1 information to the director in writing at least ten days prior to any maintenance, start-up or shutdown activity which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, notice shall be given as soon as practicable prior to the activity. [10 CSR 10-6.050(3)(B)]
3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo. [10 CSR 10-6.050(3)(C)]

4) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule. [10 CSR 10-6.050(3)(D)]
5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported. [10 CSR 10-6.050(3)(E)]

**10 CSR 10-6.060 Construction Permits Required**
The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, begin operation after that construction, modification, or major modification, or begin operation of any installation which has been shut down longer than five years without first obtaining a permit from the permitting authority. [10 CSR 10-6.060(1)(C)]

**10 CSR 10-6.065 Operating Permits**
The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months. The permittee shall retain the most current operating permit issued to this installation on-site. The permittee shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request. [10 CSR 10-6.065(6)(C)3.B]

**10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants and 40 CFR Part 61 Subpart M National Emission Standard for Asbestos**
The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.

**10 CSR 10-6.100 Alternate Emission Limits**
Proposals for alternate emission limitations shall be submitted on Alternate Emission Limits Permit forms provided by the department. [10 CSR 10-6.100(3)(A)1]. An installation owner or operator must obtain an Alternate Emission Limits Permit in accordance with 10 CSR 10-6.100 before alternate emission limits may become effective. [10 CSR 10-6.100(3)(A)2]

**10 CSR 10-6.110 Reporting of Emission Data, Emission Fees and Process Information**
1) 1) The permittee shall submit a Full Emissions Report either electronically via MoEIS, which requires Form 1.0 signed by an authorized company representative, or on Emission Inventory Questionnaire (EIQ) paper forms on the frequency specified in Table 4 of 10 CSR 10-6.100 and in accordance with the requirements of 10 CSR 10-6.110. Alternate methods of reporting the emissions, such as spreadsheet file, can be submitted for approval by the director.
[10 CSR 10-6.110(4)(B) and (C)]
2) Public Availability of Emission Data and Process Information. Any information obtained pursuant to the rule(s) of the Missouri Air Conservation Commission that would not be entitled to confidential treatment under 10 CSR 10-6.210 shall be made available to any member of the public upon request.
[10 CSR 10-6.110(3)(D)]
3) The permittee shall pay an annual emission fee per ton of applicable pollutant emissions identified in Table 2 of 10 CSR 10-6.110. [10 CSR 10-6.110(3)(A)]

**10 CSR 10-6.130 Controlling Emissions During Episodes of High Air Pollution Potential**
This rule specifies the conditions that establish an air pollution alert (yellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee

shall submit an appropriate emergency plan if required by the Director.
[10 CSR 10-6.130(4)]

**10 CSR 10-6.150 Circumvention**

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

**10 CSR 10-6.165 Restriction of Emission of Odors**

**This requirement is a State Only permit requirement.**

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour. This odor evaluation shall be taken at a location outside of the installation's property boundary.

**10 CSR 10-6.170**
**Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin**

1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line of origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director. [10 CSR 10-6.170(1)(A)]
2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin. [10 CSR 10-6.170(1)(B)]
3) Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following: [10 CSR 10-6.170(2)]
    a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions; [10 CSR 10-6.170(2)(A)]
    b) Paving or frequent cleaning of roads, driveways and parking lots; [10 CSR 10-6.170(2)(B)]
    c) Application of dust-free surfaces; [10 CSR 10-6.170(2)(C)]
    d) Application of water; and [10 CSR 10-6.170(2)(D)]
    e) Planting and maintenance of vegetative ground cover. [10 CSR 10-6.170(2)(E)]

**10 CSR 10-6.180 Measurement of Emissions of Air Contaminants**

1) The director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The director may specify testing methods to be used in accordance with good professional practice. The director may observe the testing. All tests shall be performed by qualified personnel. [10 CSR 10-6.180(1)]
2) The director may conduct tests of emissions of air contaminants from any source. Upon request of the director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants. [10 CSR 10-6.180(2)]

3) The director shall be given a copy of the test results in writing and signed by the person responsible for the tests. [10 CSR 10-6.180(1)]

**10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants**

***Emission Limitation:***

1) The permittee shall not cause or permit to be discharged into the atmosphere from any source, not exempted under 10 CSR 10-6.220, any visible emissions with an opacity greater than 20%. [10 CSR 10-6.220(3)(A)]
2) Exception: The permittee may discharge into the atmosphere visible emissions of up to 40% for a period not aggregating more than one (1) six (6) minutes period in any 60 minutes. [10 CSR 10-6.220(3)(B)]

***Monitoring:***

1) The permittee shall conduct opacity readings on each emission unit using the procedures contained in USEPA Test Method 22 (unless another method or procedure is specified in this permit). The permittee is only required to take readings when the emission unit is operating and when the weather conditions allow. If the permittee observes no visible or other significant emissions using these procedures, then no further observations are required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, a source representative would then conduct a Method 9 observation.
2) The permittee must maintain the following monitoring schedule:
   a) Observations must be made once per month. If a violation is noted, then
   b) Weekly observations shall be conducted for a minimum of eight (8) consecutive weeks. Should no violation of this regulation be observed during this period then monitoring reverts to monthly monitoring.

***Recordkeeping:***

1) The permittee shall maintain records of all observation results using Attachment B (or its equivalent), noting:
   a) Whether any air emissions (except for water vapor) were visible from the emission units;
   b) All emission units from which visible emissions occurred;
   c) Whether the visible emissions were normal for the process;
   d) The permittee shall maintain records of any equipment malfunctions, which may contribute to visible emissions; and,
2) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (See Attachment C).

**10 CSR 10-6.250 Asbestos Abatement Projects – Certification, Accreditation, and Business Exemption Requirements**

**This requirement is a State Only permit requirement.**

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250.

1) This rule requires individuals who work in asbestos abatement projects to be certified by the Missouri Department of Natural Resources Air Pollution Control Program. [10 CSR 10-6.250(3)(A)].
2) This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Missouri Department of Natural Resources Air Pollution Control Program. [10 CSR 10-6.250(3)(D)]
3) This rule requires persons who hold exemption status from certain requirements of this rule to allow the department to monitor training provided to employees. [10 CSR 10-6.250(3)(E)]

**10 CSR 10-6.280 Compliance Monitoring Usage**

1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates: [10 CSR 10-6.280(3)(A)]
   a) Monitoring methods outlined in 40 CFR Part 64; [10 CSR 10-6.280(3)(A)1.]
   b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and [10 CSR 10-6.280(3)(A)2.]
   c) Any other monitoring methods approved by the director. [10 CSR 10-6.280(3)(A)3.]
2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at an installation: [10 CSR 10-6.280(3)(B)]
   a) Monitoring methods outlined in 40 CFR Part 64; [10 CSR 10-6.280(3)(B)1.]
   b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and [10 CSR 10-6.280(3)(B)2.]
   c) Compliance test methods specified in the rule cited as the authority for the emission limitations. [10 CSR 10-6.280(3)(B)3.]
3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods: [10 CSR 10-6.280(5)]
   a) Applicable monitoring or testing methods, cited in: [10 CSR 10-6.280(5)(A)]
      i) 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
      ii) 10 CSR 10-6.040, "Reference Methods";
      iii) 10 CSR 10-6.070, "New Source Performance Standards";
      iv) 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
   b) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above. [10 CSR 10-6.280(5)(B)]

**10 CSR 10-5.040 Use of Fuel in Hand-Fired Equipment Prohibited**

No owner or operator shall operate applicable hand-fired, fuel-burning equipment unless the owner or operator meets the conditions set forth in 10 CSR 10-5.040(3). This regulation shall apply to all hand-fired fuel-burning equipment at commercial facilities including, but not limited to, furnaces, heating and cooking stoves and hot water furnaces. It shall not apply to wood-burning fireplaces and wood-burning stoves in dwellings, nor to fires used for recreational purpose, nor to fires used solely for the preparation of food by barbecuing or to other equipment exempted under 10 CSR 10-5.104(1). Hand-fired fuel-burning equipment is any stove, furnace, or other fuel-burning device in which fuel is manually introduced directly into the combustion chamber. [10 CSR 10-5.040(2)(B) and 10 CSR 10-6.020(2)(H)(3)]

**10 CSR 10-5.060 Refuse Not to be Burned in Fuel Burning Installations**
**(Rescinded on February 11, 1979, Contained in State Implementation Plan)**

No person shall burn or cause or permit the burning of refuse in any installation which is designed for the primary purpose of burning fuel.

**40 CFR Part 82 Protection of Stratospheric Ozone (Title VI)**

The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

   a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required

warning statement if it is being introduced into interstate commerce pursuant to 40 CFR §82.106. [40 CFR §82.106(a) and 40 CFR §82.102].

b) The placement of the required warning statement must comply with the requirements of 40 CFR §82.108.
c) The form of the label bearing the required warning statement must comply with the requirements of 40 CFR §82.110.
d) No person may modify, remove, or interfere with the required warning statement except as described in 40 CFR §82.112.

2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B of 40 CFR Part 82:
   a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices described in 40 CFR §82.156.
   b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment described in 40 CFR §82.158.
   c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR §82.161.
   d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with the record keeping requirements of 40 CFR §82.166. ("MVAC-like" appliance as defined at 40 CFR §82.152).
   e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant of 40 CFR §82.156.
   f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR §82.166.
3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements contained in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.
5) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR part 82*

# V. General Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued,

**10 CSR 10-6.065(6)(C)1.B Permit Duration**
**10 CSR 10-6.065(6)(E)3.C Extension of Expired Permits**

This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed. If a timely and complete application for a permit renewal is submitted, but the Air Pollution Control Program fails to take final action to issue or deny the renewal permit before the end of the term of this permit, this permit shall not expire until the renewal permit is issued or denied.

**10 CSR 10-6.065(6)(C)1.C General Record Keeping and Reporting Requirements**

1) Record Keeping
   a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application. [10 CSR 10-6.065(6)(C)(1)(C)(II)(b)]
   b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.
2) Reporting
   a) All reports shall be submitted to the Air Pollution Control Program, Compliance and Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
   b) The permittee shall submit a report of all required monitoring by: [10 CSR 10-6.065(6)(C)(1)(C)(III)]
      i) October 1st for monitoring which covers the January through June time period, and
      ii) April 1st for monitoring which covers the July through December time period.
   c) Each report shall identify any deviations from emission limitations, monitoring, record keeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances. [10 CSR 10-6.065(6)(C)(1)(C)(III)(b)]
   d) Submit supplemental reports as required or as needed. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken. [10 CSR 10-6.065(6)(C)(1)(C)(III)(c)]
      i) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7.A of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken. [10 CSR 10-6.065(6)(C)(1)(C)(III)(c)(I)]
      ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable. [10 CSR 10-6.065(6)(C)(1)(C)(III)(c)(II)]

iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semiannual report shall be reported on the schedule specified in this permit. [10 CSR 10-6.065(6)(C)(1)(C)(III)(c)(III)]

e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation. [10 CSR 10-6.065(6)(C)(1)(C)(III)(d)]

f) The permittee may request confidential treatment of information submitted in any report of deviation. [10 CSR 10-6.065(6)(C)(1)(C)(III)(e)]

**10 CSR 10-6.065(6)(C)1.D Risk Management Plan Under Section 112(r)**

If the installation is required to develop and register a risk management plan pursuant to Section 112(R) of the Act, the permittee will verify that it has complied with the requirement to register the plan.

**10 CSR 10-6.065(6)(C)1.F Severability Clause**

In the event of a successful challenge to any part of this permit, all uncontested permit conditions shall continue to be in force. All terms and conditions of this permit remain in effect pending any administrative or judicial challenge to any portion of the permit. If any provision of this permit is invalidated, the permittee shall comply with all other provisions of the permit.

**10 CSR 10-6.065(6)(C)1.G General Requirements**

1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application. [10 CSR 10-6.065(6)(C)(1)(G)(I)]
2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [10 CSR 10-6.065(6)(C)(1)(G)(II)]
3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
[10 CSR 10-6.065(6)(C)(1)(G)(III)]
4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
[10 CSR 10-6.065(6)(C)(1)(G)(IV)]
5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 10 CSR 10-6.065(6)(C)1. [10 CSR 10-6.065(6)(C)(1)(G)(V)]

**10 CSR 10-6.065(6)(C)1.H Incentive Programs Not Requiring Permit Revisions**

No permit revision will be required for any installation changes made under any approved economic incentive, marketable permit, emissions trading, or other similar programs or processes provided for in this permit.

**10 CSR 10-6.065(6)(C)1.I Reasonably Anticipated Operating Scenarios**
None.

**10 CSR 10-6.065(6)(C)3 Compliance Requirements**
1) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official. [10 CSR 10-6.065(6)(C)(3)(A)]
2) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
   [10 CSR 10-6.065(6)(C)(3)(B)]
   a) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
   b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
   c) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
   d) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
3) All progress reports required under an applicable schedule of compliance shall be submitted semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following: [10 CSR 10-6.065(6)(C)(3)(D)]
   a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
   b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, as well as the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following: [10 CSR 10-6.065(6)(C)(3)(E)]
   a) The identification of each term or condition of the permit that is the basis of the certification;
   b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;
   c) Whether compliance was continuous or intermittent;
   d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and
   e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

**10 CSR 10-6.065(6)(C)6 Permit Shield**
1) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date that this permit is issued, provided that: [10 CSR 10-6.065(6)(C)(6)(A)]

a) The applicable requirements are included and specifically identified in this permit, or
b) The permitting authority, in acting on the permit revision or permit application, determines in writing that other requirements, as specifically identified in the permit, are not applicable to the installation, and this permit expressly includes that determination or a concise summary of it.

2) Be aware that there are exceptions to this permit protection. The permit shield does not affect the following: [10 CSR 10-6.065(6)(C)(6)(B)]
   a) The provisions of section 303 of the Act or section 643.090, RSMo concerning emergency orders,
   b) Liability for any violation of an applicable requirement which occurred prior to, or was existing at, the time of permit issuance,
   c) The applicable requirements of the acid rain program,
   d) The authority of the Environmental Protection Agency and the Air Pollution Control Program of the Missouri Department of Natural Resources to obtain information, or
   e) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

**10 CSR 10-6.065(6)(C)7 Emergency Provisions**

1) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
   a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
   b) That the installation was being operated properly,
   c) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
   d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
2) Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

**10 CSR 10-6.065(6)(C)8 Operational Flexibility**

An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a permit revision in order to make any of the changes to the permitted installation described below (and in subparagraph (6)(C)(8)(A) of 10 CSR 10-6.065) if the changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable under the permit, and the changes do not result in the emission of any air contaminant not previously emitted. The permittee shall notify the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

1) Section 502(b)(10) changes. Changes that, under section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), record keeping, reporting or compliance requirements of the permit.

a) Before making a change under this provision, The permittee shall provide advance written notice to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and the APCP shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the APCP as above at least seven days before the change is to be made. If less than seven days notice is provided because of a need to respond more quickly to these unanticipated conditions, the permittee shall provide notice to the EPA and the APCP as soon as possible after learning of the need to make the change.
b) The permit shield shall not apply to these changes.

**10 CSR 10-6.065(6)(C)9 Off-Permit Changes**

1) Except as noted below, the permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the permit, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
   a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
   b) The permittee must provide contemporaneous written notice of the change to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.
   c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
   d) The permit shield shall not apply to these changes.

**10 CSR 10-6.065(6)(E)6 Reopening-Permit for Cause**

This permit shall be reopened for cause if:

1) The Missouri Department of Natural Resources (MoDNR) receives notice from the Environmental Protection Agency (EPA) that a petition for disapproval of a permit pursuant to 40 CFR § 70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,
2) MoDNR or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
3) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
   a) The permit has a remaining term of less than three years;
   b) The effective date of the requirement is later than the date on which the permit is due to expire; or
   c) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
4) The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit; or

5) MoDNR or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

**10 CSR 10-6.065(6)(E)1.C Statement of Basis**
This permit is accompanied by a statement setting forth the legal and factual basis for the permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

**10 CSR 10-6.020(2)(R)34 Responsible Official**
The application utilized in the preparation of this permit was signed by Ed Cope, Operations Division Manager. On May 14, 2015, the Air Pollution Control Program was informed that Rebecca Coyle, Operations Division Manager is now the responsible official. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

# VI. Attachments

Attachments follow.

## Attachment A - Representative Operating Conditions Metrics

Since the 40 CFR Part 60, Subpart MMMM 85% maximum permitted capacity requirement does not define metrics relevant to the Installation's unique operating conditions, the Program and Installation concur that the criteria in the Table below should be used to evaluate compliance with 40 CFR Part 60, Subpart A. The Program requests the Installation document the metrics in a table and compare it to historical reduction data and operating parameters documented during all prior performance tests for incinerators 2 through 5, but not earlier than those tests conducted after the combination impingement tray scrubbers and venturi scrubbers were installed. The table should be submitted with the performance test report for each performance test completed.

| Parameter | Units |
|---|---|
| Biosolids Feed Rate | wet tons/hour, for each test run |
| Biosolids Cake Solids | percent, for each test run |
| Minimum Biosolids Feed Rate | dry tons/hour, minimum of all test runs |
| Maximum Biosolids Feed Rate | dry tons/hour, maximum of all test runs |
| Average Biosolids Feed Rate | dry tons/hour, of all test runs |
| 5-Year Biosolids Feed Rate | average dry tons/hour (for last 5 years of operation, beginning 3/16/16) |
| 30-day Biosolids Feed Rate | average daily dry tons/hour (for the previous 30 days prior to test event) |
| Monthly Biosolids Feed Rate | average dry tons/hour (for days incinerator is in operation over previous 12 months prior to test event) |
| Quarterly Biosolids Feed Rate | highest day/quarter – average dry tons/hour (Q1 = Dec–Feb, Q2 = Mar–May, Q3 = Jun–Aug, Q4 = Sep-Nov for same Q tested) |
| Average Biosolids Feed Rate Percentile | Percentile (determined from daily feed rate data for last 5 years of operation, beginning 3/16/16) |
| Mississippi River Stage at St. Louis | feet (mean on test day, from stream gauge) |
| Mississippi River Stage at St. Louis | feet (range from highest to lowest for previous 12 months prior to test event) |
| Average Daily Flow Into Plant on Test Day | millions gallons per day |
| Volatile Solids | percent, for each test run |
| Filterable Particulate Matter | mg/dscm, average of 3 runs |
| Sulfur Dioxide | ppmvd,average of 3 runs |
| Oxides of Nitrogen | ppmvd, average of 3 runs |
| Carbon Monoxide | ppmvd, average of 3 runs |
| Hydrochloric Acid | ppmvd, average of 3 runs |
| Cadmium | mg/dscm, average of 3 runs |
| Lead | mg/dscm, average of 3 runs |
| Mercury | mg/dscm, average of 3 runs |
| Beryllium | gr/24-hr period, average of 3 runs |
| Polychlorinated Dibenzo-p-dioxins/Polychlorinated Dibenzofurans. | ng/dscm TEF, average of 3 runs |
| Fugitive Emission[1] | percent |
| Afterburner Exit Temp. | degrees Fahrenheit, for each test run |
| Total Scrubber Water Flow | gallon/minute, for each test run |
| Total Scrubber Pressure Drop | inches w.c., for each test run |
| Scrubber Water Outlet | pH, for each test run |

1. Fugitive emissions from the ash handling area shall be determined in accordance with EPA Method 22, and includes observing the process area(s) during normal operations for a 60 minute observation period.

Attachment B - Fugitive Emission Observations

| Date | Time | Visible Emissions | | Abnormal Emissions | | Initial |
|---|---|---|---|---|---|---|
| | | Beyond Boundary | | Cause | Corrective Action | |
| | | No | Yes | | | |
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Attachment C - Opacity Emission Observations

| Date | Time | Emission Source | Visible Emissions | | Excess Emissions | | |
|---|---|---|---|---|---|---|---|
| | | | No | Yes[1] | Cause | Corrective Action | Initial |
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[1]If there are visible emissions, the permittee shall complete the excess emissions columns.

Attachment D - Method 9 Opacity Emissions Observations

| Method 9 Opacity Emissions Observations | |
|---|---|
| Company | Observer |
| Location | Observer Certification Date |
| Date | Emission Unit |
| Time | Control Device |

| Hour | Minute | Seconds | | | | Steam Plume (check if applicable) | | Comments |
|---|---|---|---|---|---|---|---|---|
| | | 0 | 15 | 30 | 45 | Attached | Detached | |
| | 0 | | | | | | | |
| | 1 | | | | | | | |
| | 2 | | | | | | | |
| | 3 | | | | | | | |
| | 4 | | | | | | | |
| | 5 | | | | | | | |
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| | 15 | | | | | | | |
| | 16 | | | | | | | |
| | 17 | | | | | | | |
| | 18 | | | | | | | |

**SUMMARY OF AVERAGE OPACITY**

| Set Number | Time | | Opacity | |
|---|---|---|---|---|
| | Start | End | Sum | Average |
| | | | | |
| | | | | |
| | | | | |

Readings ranged from _____ to _____ % opacity.

Was the emission unit in compliance at the time of evaluation? _____ _____ _____
YES NO Signature of Observer

Attachment E: Compliance Assurance Monitoring Plan (CAM)

| **MSD – Bissell Point Wastewater Treatment Plant (APCP Id. No. 510-0053)<br>CAM Monitoring Approach for Particulate Matter Emissions<br>Controlled by Venturi Scrubber/Mist Eliminator System<br>From Emission Point EP-09 – Wet Ash Conveying System** | | |
|---|---|---|
| | **Indicator #1** | **Indicator #2** |
| **Indicator** | Visible Emissions | Pressure Drop |
| **Measurement Approach** | Visible emissions from Venturi Scrubber/Mist Eliminator exhaust shall be monitored using EPA Reference Method 22-like procedures. | Pressure drop across Venturi Scrubber/Mist Eliminator shall be continuously monitored using a Supervisory Control and Data Acquisition (SCADA) system. |
| **Indicator Range** | The indicator range is defined as no visible emissions. An excursion is defined as the presence of visible emissions. | The indicator range is defined as a pressure drop between 1 and 10 inches of water column (in $H_2O$). An excursion is defined as a pressure drop that is less than 1 in $H_2O$ and/or greater than 10 inches $H_2O$. |
| | An excursion of either indicator constitutes an excursion. If visible emissions are present when the pressure drop is within its specified indicator range, the pressure drop indicator range shall be re-evaluated by the permittee. Excursions trigger an inspection, corrective action, and need to be reported in the next Semiannual Monitoring Report. Excursions shall be corrected immediately upon detection; if an excursion results in excess emissions exceeding 1 hour, the permittee may elect to file a startup, shutdown, and malfunction assertion under 10 CSR 10-6.050 if appropriate to the situation. | |
| **QIP Threshold** | The QIP threshold for any individual emission unit is 9 excursions in a 6-month reporting period. If an emission unit reaches the QIP threshold, the permittee shall submit a QIP for that unit along with the Semiannual Monitoring Report for that reporting period. | |
| Performance Criteria | | |
| **Data Representativeness** | Measurements shall be made at the emission point (i.e., Venturi Scrubber/Mist Eliminator exhaust). | Pressure drop taps are located at the inlet and outlet of Venturi Scrubber/Mist Eliminator. The differential pressure gauges have a minimum accuracy of 0.25 in $H_2O$. |
| **Verification of Operational Status** | NA | Pressure drop taps are checked for plugging quarterly or upon reasonable suspicion of gauge malfunction. |
| **QA/QC Practices and Criteria** | The visible emissions observer shall be familiar with EPA Reference Method 22 and follow Method 22-like procedures. | The differential pressure gauges shall be calibrated no less frequently than semiannually in accordance with the manufacturer's specifications. |
| **Monitoring Frequency** | A 6-minute Method 22-like observation shall be performed daily. | Continuously. |
| **Data Collection Procedure** | The VE observation is manually recorded (i.e., documented) daily by the observer. | An instantaneous measurement shall be manually recorded daily. |
| **Averaging Period** | NA | None |
| **Reporting** | Summary information on the number, duration, and cause for any excursions and differential pressure gauge downtime shall be reported semiannually as part of MSD's Part 70 Semiannual Monitoring Report. | |

Attachment F - Inspection/Maintenance/Repair/Malfunction Log

Emission Unit # _____

| Date/Time | Inspection/ Maintenance Activities | Malfunction Activities | | | | | |
|---|---|---|---|---|---|---|---|
| | | Malfunction | Impact | Duration | Cause | Action | Initials |
| | | | | | | | |
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# STATEMENT OF BASIS

## INSTALLATION DESCRIPTION

The Metropolitan St. Louis Sewer District (MSD) - Bissell Point Plant is one of the largest wastewater treatment facilities in Missouri. The Bissell Point Watershed consists of an 81.4 square mile area served by 1,300 miles of combined and separate sanitary sewers. The system serves the St. Louis downtown business district, the northern industrial area, and the residential areas in the northern part of the city and county, and it discharges into the Mississippi River.

Six (6) multiple hearth incinerators, namely Incinerator Nos. 1 through 6, are present at the facility. Incinerator #1 and Incinerator #6 will be taken out of service on or before the compliance date of 40 CFR Part 60 Subpart MMMM, Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units. MSD currently operates the remaining four (4) incinerators.

The incinerators are equipped with multiple hearths. Sludge is dewatered with belt filter presses and conveyed to the multiple hearth furnaces with belt conveyors. The sludge conveyors are equipped with weigh scales for continuous monitoring of the amount of sludge being incinerated. The dewatered sludge is introduced at hearth 2 and rabbled down through successive hearths in a spiral path. The moisture in the sludge is evaporated in the upper hearths as hot combustion gases traveling counter concurrently from the middle hearths where combustion takes place. The furnace is equipped with auxiliary natural gas burners at seven (7) of the eleven (11) hearths. The firing rate of the burners is modulated by a central control system to sustain the desired hearth temperatures.

The air pollution control system of the incinerators is comprised of quench section, Venturi-Pak (venturi throat sections and mist eliminator) and impingement tray scrubber system. Exhaust gases pass through this system via induced draft fan then to the atmosphere.

The Bissell Point Plant is located in an ozone non-attainment area and is a major source for nitrogen oxides and carbon monoxide.

**Updated Potential to Emit (PTE) for the Installation and Reported Air Pollutant Emissions, tons per year**

| Pollutants | Potential to Emit[1] | Reported Actual Emissions | | | | |
|---|---|---|---|---|---|---|
| | | 2016 | 2015 | 2014 | 2013 | 2012 |
| Particulate Matter ≤ Ten Microns ($PM_{10}$) | 10.60 | 22.30 | 29.81 | 23.65 | 20.98 | 22.81 |
| Particulate Matter ≤ 2.5 Microns ($PM_{2.5}$) | 9.15 | 15.10 | 19.03 | 15.54 | 12.80 | 2.77 |
| Sulfur Oxides (SOx) | 7.40 | 6.29 | 10.27 | 5.81 | 12.54 | 37.85 |
| Nitrogen Oxides (NOx) | 181.46 | 74.92 | 59.47 | 45.93 | 57.82 | 69.24 |
| Volatile Organic Compounds (VOC) | 39.31 | 26.37 | 33.44 | 24.96 | 33.17 | 36.07 |

| Pollutants | Potential to Emit[1] | Reported Actual Emissions | | | | |
|---|---|---|---|---|---|---|
| | | 2016 | 2015 | 2014 | 2013 | 2012 |
| Carbon Monoxide (CO) | 981.68 | 482.03 | 674.97 | 600.21 | 485.40 | 517.04 |
| Lead (Pb) | 0.24 | 0.01 | 0.22 | 0.18 | 0.15 | 0.15 |
| Hazardous Air Pollutants (HAP's) | 17.53 | 1.19 | 1.40 | 1.24 | 1.07 | 0.86 |
| Ammonia ($NH_3$) | 520.19 | 407.89 | 453.66 | 414.19 | 415.96 | 369.00 |
| Hydrogen Sulfide ($H_2S$) | <10 | — | — | — | — | — |

Note: [1]Each emission unit was evaluated at 8,760 hours of uncontrolled annual operation unless otherwise noted.

- Potential emissions of the four incinerators were based on the federally enforceable limitations found in the issued construction permit No. 95-05-068A.
- Potential emissions of the sludge building boilers were based on the federally enforceable limitations found in the issued construction permit No. 95-05-029A.
- Potential emissions of the pump station boilers, primary control building boiler, administrative building boilers and trickling filter pump station boilers were based on the federally enforceable limitations found in the issued construction permit No. 95-05-029A.
- $PM_{10}$, $PM_{2.5}$ and $SO_X$ PTE are less than the reported emissions due to:
  (a) Shut down of two (2) incinerators (Incinerator #1 and #6) and
  (b) Scrubber upgrades –MSD replaced impingement tray scrubbers and single venturi scrubbers for incinerators #2 through #5 (EP-3 through EP-6) with combination of impingement tray scrubbers and multiple fixed venturi scrubbers in order to comply with 40 CFR Part 60 Subpart MMMM, *Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units*. the new scrubbers improved control efficiency.

**Permit Reference Documents**

These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

1) Part 70 Operating Permit Application, received June 25, 2007; revised November 2, 2009;
2) P70 Operating Permit Administrative Amendment, Project #2010-01-063, received December 2, 2010;
3) P70 Operating Permit Administrative Amendment, Project #2012-01-036, received January 12, 2012;
4) Modified Renewal Application, received May 14, 2015;
5) 2016 Emissions Inventory Questionnaire, received April 27, 2017 ;
6) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition;
7) St. Louis City Construction Permit #94-05-029A;
8) St. Louis City Construction Permit #95-05-068;
9) St. Louis City Construction Permit #95-05-069; and

10) New Source Review Permit Amendment - Permit Number: 95-05-068A, Project Number: 2014-08-028

**Applicable Requirements Included in the Operating Permit but Not in the Application or Previous Operating Permits**

In the operating permit application, the installation indicated they were not subject to the following regulation(s). However, in the review of the application, the agency has determined that the installation is subject to the following regulation(s) for the reasons stated.

None

**Other Air Regulations Determined Not to Apply to the Operating Permit**

The Air Pollution Control Program (APCP) has determined the following requirements do not apply to this installation at this time for the reasons stated.

1) St. Louis City Ordinances Nos. 64749, 65108, 65488, 65442 and 65645
These ordinances were reviewed and considered at the time the application for this permit was submitted. Since that time, these ordinances have been repealed and replaced with St. Louis City Ordinance No. 68657. The only section of Ordinance 65645 that corresponds to a rescinded ordinance included in the State SIP and therefore federally enforceable is Section 16 - Open Burning Restrictions. This section of the new ordinance is the only section included in the operating permit at this time.

2) 10 CSR 10-5.450, *Control of VOC Emissions from Traffic Coatings*
This regulation was determined to not apply to this plant since the plant controls the ingress and egress of traffic at the plant, thus the plant is not public property.

3) 10 CSR 10-6.261, *Control of Sulfur Dioxide Emissions*
This rule does not apply to the installation because the combustion equipment at this installation is fueled exclusively with natural gas and according to paragraph (1)(A) of this rule, combustion equipment that uses exclusively pipeline grade natural gas as defined by American Society for Testing and Materials (ASTM) is exempt.

4) 10 CSR 10-6.405, *Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating*.
This regulation does not apply to the boilers because they burn only natural gas and are exempt according to 10 CSR 10-6.405(1)(C).

**Construction Permit History**

The following revisions were made to construction permits for this installation:

1) St. Louis City Construction Permit #95-05-068
Section V of construction permit #95-05-068 deals with the initial performance test requirements for #1 through #5 incinerators. Since the installation has already completed the performance testing requirements for construction permit number #95-05-068, the conditions are not included in the operating permit.

Section VII construction permit #95-05-068 deals with inspections and the authority to inspect.

Since inspection and the authority to inspect are requirements of the P70 permit and included in the general requirements section of this permit, the provisions of Section VII of construction permit #95-05-068 are not included in the operating permit.

**New Source Performance Standards (NSPS) Applicability**

10 CSR 10-6.070, *New Source Performance Regulations*

1) 40 CFR Part 60 Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*
   This rule is applicable to Sludge Building Boilers #1 - #3 (EP14 – EP16) due to the installation date and the size of the boiler. However, since this facility only uses natural gas and propane for fuel, there are no specific limitations for sulfur dioxide and particulate matter from this rule except the record keeping requirement of 40 CFR §60.48c.

2) 40 CFR Part 60 Subpart O, *Standards of Performance for Sewage Treatment Plants*
   The provisions of this subpart apply to incinerators that combust wastes containing more than 10 percent sewage sludge (dry basis) produced by municipal sewage treatment plants, or each incinerator that charges more than 1000 kg (2205 lb) per day municipal sewage sludge (dry basis) and that commences construction or modification after June 11, 1973. Since incinerators #2 through #5 (EP03 – EP06) were constructed in 1967, and incinerator #1 (EP02) and #6 (EP07) have been decommissioned or out of service, the requirements of this subpart would not apply.

3) 40 CFR Part 60 Subpart MMMM, *Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units*.
   This subpart applies to incinerators #2 through #5 (EP03 – EP06) and the ash handling system (EP09). Incinerator #1 (EP02) and #6 (EP07) are not in operation.

**Maximum Achievable Control Technology (MACT) Applicability**

10 CSR 10-6.075, *Maximum Achievable Control Technology Regulations*

1) 40 CFR Part 63 Subpart VVV, *National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works*
   The plant is considered an existing non-industrial source under this rule. As an existing non-industrial source, the plant does not have additional control requirements and is not required to submit a notification of compliance status under this subpart.

2) 40 CFR Part 63, Subpart T, *National Emission Standards for Halogenated Solvent Cleaning*
   The provisions of this subpart apply to each individual batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent. Wipe cleaning activities, such as using a rag containing halogenated solvent are not covered under the provisions of this subpart.

   The permittee has a Parts Washer (EP26) which does not use halogenated solvents as defined in 40 CFR 63.460, therefore the unit is not subject to the MACT standards for halogenated solvent cleaning.

1) 40 CFR Part 63 Subpart DDDDD, *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters*
This Subpart applies to a facility that owns or operates a industrial boilers, institutional boilers, commercial boilers, and process heaters that is a major source, or is located at a major source, or is part of a major source of HAP emissions. A process heater is defined as a unit in which the combustion gases do not directly come into contact with process material or gases in the combustion chamber (e.g., indirect fired). A boiler is defined as an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water.

This regulation does not apply the boilers and heaters at this facility because the installation is an area source of hazardous air pollutants (HAPS).

3) 40 CFR Part 63 Subpart JJJJJJ, *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*
This regulation does not apply the boilers and process heaters at this facility because they are gas-fired.

**National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**
10 CSR 10-6.080, *Emission Standards for Hazardous Air Pollutants*
1) 40 CFR Part 61, Subpart C, *National Emission Standard for Beryllium*
The provisions of this subpart apply to extraction plants, ceramic plants, foundries, incinerators, and propellant plants which process beryllium ore, beryllium, beryllium oxide, beryllium alloys, or beryllium-containing waste; and machine shops which process beryllium, beryllium oxides, or any alloy when such alloy contains more than 5 percent beryllium by weight. The permittee has six incinerators which burn beryllium containing sewage sludge, therefore the incinerators are subject to the NESHAP standard for beryllium.

2) 40 CFR Part 61, Subpart E, *National Emission Standard for Mercury*
The provisions of this subpart are applicable to those stationary sources which process mercury ore to recover mercury, use mercury chlor-alkali cells to produce chlorine gas and alkali metal hydroxide, and incinerate or dry wastewater treatment plant sludge. The permittee operates four incinerators which burn dry wastewater treatment plant sludge, therefore the incinerators are subject to the NESHAP standard for mercury.

While this Subpart is applicable to the facility, because the requirements of 40 CFR Part 60, Subpart MMMM contain a more stringent limit for mercury, the limitations imposed by Subpart MMMM are the operative limits. Therefore, the requirements of 40 CFR Part 61, Subpart E are not included in this permit.

1) 40 CFR Part 61 Subpart M – *National Emission Standard for Asbestos*
40 CFR Part 61 Subpart M – *National Emission Standard for Asbestos*.
The installation is not subject to any NESHAP standard with the exception of Subpart M - National Emission Standard for Asbestos. The installation is potentially subject to Subpart M. If the installation conducts any demolition or renovation projects to a building(s) containing asbestos, they must determine applicability with the following NESHAP regulations:
- Demolition and Renovation - 40 CFR 61.145

- Waste Disposal for Manufacturing, Fabricating, Demolition, Renovation, and Spraying - 40 CFR 61.150

**Compliance Assurance Monitoring (CAM) Applicability**

40 CFR Part 64, *Compliance Assurance Monitoring (CAM)*

The CAM rule applies to each pollutant specific emission unit that:

- Is subject to an emission limitation or standard, and
- Uses a control device to achieve compliance, and
- Has pre-control emissions that exceed or are equivalent to the major source threshold.

The Wet Ash Conveying System (Unit ID EP09) is potentially subject to CAM. The Wet Ash Conveying System is equipped with venturi scrubber/mist eliminator and has the potential to emit prior to control of greater than 100 tons per year of particulate matter (PM). PM is regulated under 10 CSR 10-6.400.

The Wet Ash Conveying System utilizes a control device to limit PM emissions from the process and has a potential to emit 2,102 tons of PM pre-control, which exceeds the major source threshold (applicability criteria #3). The Wet Ash Conveying System has a process weight limit of 25.16 pounds of PM per hour and uses venturi scrubber/mist eliminator to achieve this limit. Since the Wet Ash Conveying System triggers all three CAM criteria, MSD has submitted CAM Plan as required by the CAM rule. The CAM plan is incorporated into this permit.

**Greenhouse Gas Emissions**

Potential emissions of greenhouse gases ($CO_2e$) for this installation are calculated to be 7,314.07 tons, classifying the installation as a minor source of GHGs. There are no currently issued GHG regulations applicable to this installation. Missouri regulations do not require the installation to report $CO_2e$ emissions in their Missouri Emissions Inventory Questionnaire; therefore, the installation's $CO_2e$ emissions were not included within this permit.

**Other Regulatory Determinations**

1) 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter From Industrial Processes*
   a) The following are calculations of particulate emissions from EP08 and EP09 that show that the units do not exceed the emission limits for particulate matter:

   <u>EP09 – Wet Ash Conveying w/venturi scrubber and mist eliminator</u>
   Process Weight rate (P) = 15 ton/hr
   Exhaust Stack Temperature (T) = $90^0$F
   Exhaust Flow Rate = 15,000 ACFM

   $$SCFM = \frac{ACFM \times 528^0 R}{T^0 F + 460^0 R} = 14{,}400\ SCFM$$

   Emission Limit (lb/hr) = $4.1P^{0.67} = 4.1 \times 15^{0.67} = 25.16$ lb PM/hr
   Emission Factor (uncontrolled) = 32 lb PM/ton (Fire - SCC 30500717)

$$\text{PM Emission } \textit{Unc}\text{ontrolled (lb/hr)} = 32\frac{\text{lb}}{\text{ton}} \times 15\frac{\text{ton}}{\text{hr}} = 480\frac{\text{lb}}{\text{hr}}$$

$$\text{PM Emission Controlled (lb/hr)} = 32\frac{\text{lb}}{\text{ton}} \times 15\frac{\text{ton}}{\text{hr}} \times (1-0.99) \times (1-0.75) = 1.2\frac{\text{lb}}{\text{hr}}$$

At maximum design rate, the uncontrolled potential PM emission rates in lbs/hr for EP09 exceeds the 10 CSR 10-6.400 limit. However, the hourly controlled emission rate is far below the regulatory limit. Since the pre-control PM emissions rate in tons per year is above the major source threshold of 100 tons per year and the particulate emissions control is required to comply with the 10 CSR 10-6.400 limit, the unit is subject to CAM. CAM plan for this unit is incorporated in the operating permit.

b) Sand Blaster and Paint Spray Booth
The particulate matter potential emissions from the operation of the sand blaster and small parts spray paint operation are 0.001 lb/hr and 0.084 lb/hr, respectively. Since these units potentially emit less than one-half (0.5) pounds of particulate matter per hour they are exempt from the requirements of this rule. [10 CSR 10-6.400(1)(B)12.].

2) 10 CSR 10-5.330, *Control of Emissions from Industrial Surface Coating Operations*.
MSD does operate a small parts spray booth, but for this rule to apply, the installation's actual emissions of VOCs from surface coating operations covered under this rule must be greater than three (3) tons per twelve (12)-month rolling period, before the consideration of controls.

Annual paint usage = 40 gallons at 8.3 lbs of VOC per gallon of paint,
VOC Emission = (40 gal x 8.3 lbs/gal) x 0.0005 ton/lb = 0.166 ton/year

MSD's actual emissions are much lower than the applicability threshold of 3 tons per year, therefore this rule does not apply to small parts spray booth.

3) 10 CSR 10-5.080, *Incinerators*
This regulation was rescinded on December 9, 1991 but it remains in the State Implementation Plan. Though the installation is subject to the requirements of this rule, the requirements of 10 CSR 10-5.080 are not included in the operating permit because the particulate matter standard of 10 CSR 10-5.080 is less stringent than the installation's construction permit (Permit No. 95-05-068A) and the NSPS Subpart MMMM standards. Compliance with the construction permit and NSPS Subpart MMMM will ensure compliance with this rule.

4) St. Louis City Ordinance 68657 §17, *Incinerators*
Though the installation is subject to the requirements of this rule, the requirements of St. Louis City Ordinance 68657 § 17 are not included in the operating permit because the standards for incinerators in this ordinance are less stringent than the installation's construction permit (Permit No. 95-05-068A) and the NSPS Subpart MMMM standards. Compliance with the construction permit and the NSPS Subpart MMMM will ensure compliance with this ordinance.

5) 10 CSR 10-6.065(1)(B)(15), *Operating Permits*
The installation has reported combustion units of varying size listed in the table below as insignificant emission units. All of these combustion units emit only combustion products; produce less than one hundred fifty (150) pounds per day of any air contaminant and have a maximum rated capacity of less than ten (10) million British thermal units (BTUs) per hour heat input by using exclusively natural gas and/or propane. The APCP has determined that units such as these are not necessary to include in the operating permit.

| EP # | Description | Fuel Type* | Maximum Heat Input (MMBTU/hr) |
|---|---|---|---|
| 21 | Four Direct Fired Heaters | Natural Gas | 0.85 (each) |
| 24 | Four (4) Water Heaters | Natural Gas | 0.75 (total) |

* Propane will be used for emergency back-up fuel.

6) The following is the list of storage tanks which are identified as insignificant activities at the time of permit issuance. None of the storage tanks at this installation are large enough for 40 CFR 60 Subparts K, Ka and Kb regulations to apply.
EP11 Underground Diesel Tank, 550 gallons

**Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis**
Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons:
1. The specific pollutant regulated by that rule is not emitted by the installation;
2. The installation is not in the source category regulated by that rule;
3. The installation is not in the county or specific area that is regulated under the authority of that rule;
4. The installation does not contain the type of emission unit which is regulated by that rule; or
5. The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the APCP's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the APCP a schedule for achieving compliance for that regulation(s).