

A. Applicable Emission Limitations and/or Control Requirements
(Also See Air Emission Summary)

1. The following is the Best Available Technology (BAT) determination for emissions unit F001:
 - a. the annual particulate emission shall not exceed 3.36 TPY; and,
 - b. there shall be no visible particulate emission except for a period of time not to exceed 1 minute during any sixty minute observation period.

2. The following is the Best Available Technology (BAT) determination for emissions unit P901:
 - a. the total hourly fabric filters particulate emission shall not exceed 0.31 lb/hr;
 - b. the total annual fabric filters particulate emission shall not exceed 1.36 TPY;
 - c. the annual fugitive particulate emission shall not exceed 2.1 TPY;
 - d. at no time shall fugitive visible particulate emission caused by aggregate bin loading and aggregate conveying and transferring exceed 20 percent opacity as a six-minute average;
 - e. visible particulate emission from the fabric filter exhausts shall not exceed 5 percent as a six-minute average;
 - f. the permittee shall maintain and employ the cement silo enclosure, weigh batcher enclosure and mixer enclosure such that there are no visible particulate emission; and,
 - g. annual and hourly particulate emission were estimated based on maximum hourly through put and 8760 hours of operation per year. Therefore no record keeping is required.

B. Additional Terms and Conditions

1. The bottom ash and sand storage piles that are covered by this permit and subject to the requirements of OAC rules 3745-31-05 and 3745-17-08 are listed below: one

each of bottom ash and sand piles.

- a. The permittee shall load into and from the storage piles only bottom ash and sand that possesses adequate moisture content sufficient to minimize or eliminate fugitive particulate emissions. Dry bottom ash and sand shall be adequately watered prior to loading into or out of the bottom ash and sand storage piles in order to minimize or eliminate visible emission of fugitive dust.
 - b. The permittee shall instruct and require all front end loader operators to reduce the drop height of bucket loads of bottom ash and sand to the maximum extent possible in order to minimize or eliminate visible emission of fugitive dust.
 - c. The permittee shall ensure that the bottom ash and sand storage piles possess adequate moisture content, or are of such size shape or surface condition to minimize or eliminate visible emission of fugitive dust caused by wind erosion.
2. The cement, bottom ash and sand transferring, conveying and bin loading activities that are covered by this permit and subject to the requirements of OAC rules 3745-31-05, 3745-17-08 are listed below: one feed hopper, and all conveyors, pneumatic tanker unloading and transfer points.
- a. The permittee shall employ partial and/or total enclosures for the bottom ash and sand conveyors and transfer point in order to minimize or eliminate visible emission of fugitive dust .
 - b. The permittee shall load, convey and transfer only bottom ash and sand that possesses adequate moisture content to minimize or eliminate visible emission of fugitive dust. Dry bottom ash and sand shall be adequately wetted prior to loading, conveying and transferring.
 - c. The permittee shall instruct and require front end loader operators to reduce to the maximum extent possible the drop height of the bottom ash and sand being dumped into the hopper.
 - d. The permittee shall maintain and employ total enclosures for the conveying and transferring of cement to storage silo, for the loading of the

cement sand and bottom ash into the weigh batcher, for the loading of cement, sand and bottom ash into the mixer and provide proper exhaust to fabric filters such that there are no visible particulate emission from the enclosures.

C. Operational Restrictions

1. The pressure drop across the fabric filter serving source P901 shall be continuously maintained within a range of not less than 5 inches of water and not more than 15 inches of water (or other values established during an approved compliance demonstration) at all times while the emissions unit is in operation.

D. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform inspections of the bottom ash and sand storage piles in accordance with the following frequencies:

Once per shift

The purpose of the inspections is to determine the need for implementing additional control measures specified. The inspections shall be performed during representative, normal conditions. No inspection shall be necessary for a storage pile that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to minimize or eliminate visible emissions of fugitive dust generated by storage pile activities and to ensure compliance with the above-mentioned visible emission limitations. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such events(s) has have ended, except if the next required inspection is within one day.

2. The permittee shall perform inspections of the cement, bottom ash and sand transferring, conveying and bin loading activities in accordance with the following frequencies:

Once per shift

The purpose of the inspections is to determine the need for implementing the additional control measures specified and verifying proper operation of the fabric filters. The inspections shall be performed during representative, normal operating conditions. No inspection shall be necessary for equipment covered

with snow and/or ice or if precipitation has occurred that is sufficient for that day to minimize or eliminate visible emissions of fugitive dust generated by bottom ash and sand transferring, conveying and bin loading activities and to ensure compliance with the above-mentioned visible emission limitations. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such events(s) s have ended, except if the next required inspection is within one day.

3. The permittee shall maintain records of the following information:
 - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
 - c. the dates the control measures were implemented; and,
 - d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in 2.d. shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

4. The permittee shall properly install, operate and maintain equipment to continuously monitor the pressure drop across the fabric filters while source P901 is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

- a. the pressure drop across the fabric filter, in inches of water, on a once/shift basis; and,
- b. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

E. REPORTING REQUIREMENTS

1. The permittee shall submit deviation reports that identify any of the following occurrences:
 - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation;
 - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented; and,
 - c. the permittee shall submit deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with allowable range specified above.
2. The deviation reports shall be submitted within 30 days of the end of the calendar quarter to the appropriate Ohio EPA, Southeast District office.
3. The permittee shall submit an annual deviation (excursion) report which identify exceedances of 12-month production rate limitation by February 15.
4. The permittee shall submit required reports in the following manner:
 - a. reports of any required monitoring and/or record keeping information shall be submitted to the Ohio EPA, Southeast District Office; and,
 - b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (1) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (2) the probable cause of such deviations, and (3) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA, Southeast District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which

states that no deviations occurred during that quarter. The reports shall be submitted quarterly i.e., by January 30, April 30, July 30, and October 30 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

F. Testing Requirements and Compliance Method Determination

1. Compliance with the emission limitations in the Air Emission Summary and in the Terms and Conditions for emission unit F001 shall be determined in accordance with the following methods:

- a. Emission Limitation

PM: Visible particulate emission not to exceed one minute during any sixty-minute observation period.

Applicable Compliance Method

Compliance with the emission limitations for the storage piles shall be determined in accordance with test method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 (Standards of Performance for New Stationary Sources," as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B) (4) (a) through (B) (4) (d) of OAC rule 3745-17-03.

- b. Emission Limitation

PM 3.36 tons PM/yr.

Applicable Compliance Method

Multiply the USEPA, AP42, Section 13, 5th edition published January 1995, emission factor of 0.0003 lb PM/ton for the load in and load out activities for the bottom ash storage pile obtained from the formula and 28 lbs PM/acre/day by the appropriate through puts and pile size. Divide this total by 2000 pounds per ton. The sand storage pile uses the same formulas and the emission factors are as follows: load in and load out activity factor is 0.001 lb PM/ton handled, and the wind erosion is

14.92 lbs PM/acre/day. Divide this total by 2000 pounds per ton. The sum of the bottom ash and sand storage pile particulate emission is multiplied by a control efficiency of (1-.75) and then the result is compared to the allowable.

2. Compliance with the emission limitations in the Air Emission Summary and in the Terms and Conditions for emission unit P901 shall be determined in accordance with the following methods:

- a. Emission Limitation

5 percent opacity as a six-minute average

Applicable Compliance Method

Visible particulate emission shall be determined in accordance with the procedures and methods provided in OAC rule 3745-17-03(B) (1) and 40 CFR Part 60 Appendix A Method 9.

- b. Emission Limitation

PM: No visible particulate emission at any time

Applicable Compliance Method

Compliance with the emission limitations for the cement, weigh batcher and mixer enclosure shall be determined in accordance with test method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 (Standards of Performance for New Stationary Sources," as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B) (4) (a) through (B) (4) (d) of OAC rule 3745-17-03.

- c. Emission Limitation

PM: 0.31 lb PM/hr from the fabric filters

Applicable Compliance Method

If required, USEPA, 40 CFR Part 60, Appendix A, Method 5. Otherwise multiply the USEPA, AP42, Section 11, 5th edition published January 1995, emission factors of 0.27 lb of PM per ton of cement stored, 0.02 lb PM per ton loaded into the

weigh batcher, 0.04 lb PM per ton loaded into mixer by the maximum report capacities as follows 75 tons cement to silo, 150 tons per hour materials to weigh batcher, and 200 tons per hour material to mixer. The total PM is multiplied by the fabric filter control efficiency of (1-.99) and compared to the allowable.

d. Emission Limitation

PM: 1.36 tons PM/yr from the fabric filters

Applicable Compliance Method

Multiply the hourly emissions rate of 0.31 by the following 8760 hours/yr and then divide by 2000 lbs/ton.

e. Emission limitation

2.10 TPY PM fugitive

Applicable Compliance Method

Multiply the USEPA, AP42, Section 11, 5th edition published January 1995, emission factor of 0.029 lb PM/ton of bottom ash and sand per year loaded into the bins. Multiply this result by a control efficiency of (1-.95) and divide by 2000 pounds per ton.

f. Emission Limitation

20 percent opacity as a three-minute average

Applicable Compliance Method

Visible particulate emission shall be determined in accordance with the procedures and methods provided in OAC rule 3745-17-03(B)(1) and 40 CFR Part 60 Appendix A Method 9.

G. Miscellaneous Requirements

1. None.