

Emissions unit description: portable concrete batch plant with associated bins, conveyors, material storage piles and unpaved roadways subject to OAC 3745-17-07, 3745-17-08 and 3745-17-11

Additional Special Terms and Conditions

A. Applicable Emissions Limitations and/or Control Requirements

1. Portable concrete batch plant, emissions unit P901:
 - a. Particulate matter emissions from the portable concrete batch plant shall be limited to 0.48 pounds/hour (stack emissions) and 19.71 tons/year (stack and fugitive emissions combined). This emission limitation is broken down as follows:
 - i. Sand and aggregate transfer:
 - aa. Fugitive particulate matter emissions shall be limited to 10.37 tons/year. The visible emissions shall not exceed 20 percent opacity as a 3-minute average.
 - bb. The drop height of the front end loader bucket shall be minimized to the extent possible in order to minimize or eliminate visible emissions of fugitive particulate matter from the conveyor loading area; and,
 - cc. The sand and aggregate loaded into the elevated bins shall have a moisture content sufficient to minimize or eliminate visible emissions of fugitive particulate matter from the conveyor and transfer point to bins.
 - ii. Cement unloading:
 - aa. Each silo shall be adequately enclosed and vented to a fabric filter. The

enclosure shall be sufficient to eliminate visible emissions of fugitive particulate matter at the point of capture; and,

bb. Each fabric filter shall achieve an outlet emission rate of not greater than 0.030 grain of particulate matter emissions per dry standard cubic foot of exhaust gases or visible emissions shall not exceed 0 percent opacity, as a six-minute average, from the outlet, whichever is less stringent. This equates to a particulate matter emission limitation from each baghouse outlet of 0.29 pounds/hour and 0.63 tons/year.

iii. Weigh hopper loading:

aa. The weigh hopper shall be adequately enclosed and vented to a fabric filter. The enclosure shall be sufficient to eliminate visible emissions of fugitive particulate matter at the point of capture; and,

bb. Each fabric filter shall achieve an outlet emission rate of not greater than 0.030 grain of particulate matter emissions per dry standard cubic foot of exhaust gases or visible emissions shall not exceed 0 percent opacity, as a six-minute average, from the outlet, whichever is less stringent. This equates to a particulate matter emission limitation from each baghouse outlet of 0.19 pounds/hour and 0.41 tons/year.

iv. Transit-Mix truck loading:

aa. Fugitive particulate matter emissions shall be limited to 8.3 tons/year. The visible emissions of fugitive particulate matter shall not exceed 20 percent opacity as a 3-minute average; and,

bb. A charging boot shall be used around the hopper choke-feed discharge area and

transit-mix truck opening. The charging boot shall have a collection efficiency sufficient to minimize or eliminate visible emissions of fugitive dust at the point of capture to the extent possible with good engineering design.

2. Roadways and Parking areas, emissions unit F001:

- a. Fugitive particulate matter emissions from the plant's roadways and parking areas shall be limited to 2.74 tons/year.
 - i. Unpaved roadways and parking areas;
 - aa. There shall be no visible fugitive particulate matter emissions from any unpaved roadway or parking area except for a period of time not to exceed 3 minutes during any 60 minute observation period;
 - bb. the permittee shall apply dust suppressants to the unpaved roadways and parking areas to minimize or eliminate, at all times, visible emissions of fugitive dust generated by vehicular traffic. Water shall be used as the dust suppressant, and the following equipment shall be used for the periodic applications: transit-mix truck and/or hose/sprinkler system. The dust suppressant shall be applied to the unpaved surfaces as necessary. This term and condition shall be waived during wet conditions when there is sufficient moisture to prevent visible emissions of fugitive dust;
 - cc. any material carried off of the permittee's property and deposited onto public streets by vehicular traffic or by erosion by water, etc., shall be promptly removed and disposed of properly to minimize or prevent resuspension;
 - dd. a maximum speed limit of 15 miles per hour shall be posted and enforced on the

property; and,

ee. open bodied vehicles transporting materials which are likely to become airborne shall be covered at all times.

3. Sand and aggregate storage piles, emissions unit F002:
 - a. fugitive particulate matter emissions from the plant's material storage piles shall be limited to 4.43 tons/year; and,
 - b. there shall be no visible emissions of fugitive particulate matter from any storage pile except for a period of time not to exceed 1 minute during any 60-minute observation period.

B. Operational Restrictions

1. The maximum annual operating hours for the portable concrete batch plant, emissions unit P901, shall not exceed 4368 hours.

C. Monitoring and/or Recordkeeping Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings, if a strip-chart recorder is employed, for continuous monitoring instrumentation, and copies of all reports required by the permit. Such records may be maintained in computerized form.

1. The permittee shall maintain monthly records of the operating hours for the portable concrete batch plant, emissions unit P901.
2. The permittee shall perform daily checks for any visible particulate matter emissions from the fabric filter control systems for the weigh hopper and cement silos, while the weigh hopper and cement silos are in operation. The presence or absence of any visible emissions from each fabric filter control system shall be noted in an operations log. If any visible

emissions are observed from either system, corrective actions shall be taken to eliminate the visible emissions and these actions shall also be noted in the operations log.

3. The permittee shall maintain records which include the following information for the unpaved roadways and parking areas:
 - a. the date dust suppressants were applied to the unpaved surfaces;
 - b. the portions of unpaved surfaces that were treated with dust suppressants;
 - c. the application rate of water and any chemical additives (gallons of each per square yard); and,
 - d. the name of the equipment operator responsible for the application of the dust suppressants.

D. Reporting Requirements

None

E. Testing Requirements

1. Compliance Methods Determination: Compliance with the emission limitation(s) in section A of the Additional Special Terms and Conditions of this permit shall be determined in accordance with the following method(s):

- a. Emission Limitation
0.48 pounds of stack particulate matter emissions per hour and 19.71 tons of stack and fugitive particulate matter emissions per year from emissions unit P901.

Applicable Compliance Method

Compliance shall be determined by calculating and summing the emissions from the following operations:

- i. sand and aggregate transfer: The AP-42 emission factors, Table 11.12-2 (revised 10/86) shall be employed to calculate the actual rate of fugitive emissions;

- ii. cement unloading: The AP-42 emission factors, Table 11.12-2 (revised 10/86) and the capture/control efficiencies of each fabric filter shall be employed to calculate the actual rate of stack emissions;
- iii. weigh hopper loading: The AP-42 emission factors, Table 11.12-2 (revised 10/86) and the capture/control efficiencies of the fabric filter shall be employed to calculate the actual rate of stack emissions; and,
- iv. transit mix-truck loading: The AP-42 emission factors, Table 11.12-2 (revised 10/86) shall be employed to calculate the actual rate of fugitive emissions.

b. Emission Limitation

0.030 grain of particulate matter emissions per dry standard cubic foot or visible emissions shall not exceed 0 percent opacity, as a six-minute average.

Applicable Compliance Method

If required, compliance with the mass emission limitation shall be based on stack testing per OAC rule 3745-17-03 (B) (7). If required, compliance with the visible emission limitation shall be determined by visible emissions evaluations performed in accordance with OAC rule 3745-17-03 (B) (5) using the methods and procedures specified in USEPA Method 9.

c. Emission Limitation

2.74 tons of fugitive particulate matter per year from the plant's roadways and parking areas, emissions unit F001.

Applicable Compliance Method

Compliance shall be determined by calculating and summing the emissions from the unpaved and paved segments:

- i. unpaved roadways and parking areas: The AP-42

emission factors, section 13.2.2 (revised 1/95) shall be employed to calculate the actual rate of fugitive emissions.

d. Emission Limitation

4.43 tons of fugitive particulate matter emissions per year from the plant's material storage piles, emissions unit F002.

Applicable Compliance Method

The AP-42 emission factors, section 13.2.4 (revised 1/95) shall be employed to calculate the actual rate of fugitive emissions.

e. Emission Limitation

20 percent opacity as a 3-minute average.

Applicable Compliance Method

Compliance shall be determined by visible emissions evaluations performed in accordance with OAC rule 3745-17-03 (B) (3) using the methods and procedures specified in USEPA Method 9.

F. Miscellaneous Requirements

None