



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

**RE: FINAL PERMIT TO INSTALL
KNOX COUNTY
Application No: 01-08811**

CERTIFIED MAIL

	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

DATE: 5/27/2004

United Precast Inc
Tad Johns
Post Office Box 991 227 Roundhouse Ln
Mt Vernon, OH 43050

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

cc: USEPA

CDO



**Permit To Install
Terms and Conditions**

**Issue Date: 5/27/2004
Effective Date: 5/27/2004**

FINAL PERMIT TO INSTALL 01-08811

Application Number: 01-08811
APS Premise Number: 0142010081
Permit Fee: **\$2900**
Name of Facility: United Precast Inc
Person to Contact: Tad Johns
Address: Post Office Box 991 227 Roundhouse Ln
Mt Vernon, OH 43050

Location of proposed air contaminant source(s) [emissions unit(s)]:
**227 Roundhouse Ln
Mt Vernon, Ohio**

Description of proposed emissions unit(s):
Concrete batching plant consisting of aggregate and cement conveyance systems weigh hoppers and cement storage silos and roadways and parking areas.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. 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 31, April 30, July 31, and October 31 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.)

3. Records Retention 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 for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may

be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and

conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
Particulate emissions	103.4

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F001 - Paved roadways	OAC rule 3745-31-05(A)(3)	<p>Particulate emissions from paved roadways shall not exceed 1.1 TPY; see section A.2.a</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust from paved roadways; see sections A.2.c, and A.2.f through A.2.j</p> <p>There shall be no visible particulate emissions except for a period of 1 minute during any 60 minute observation period from a paved roadway.</p>
Unpaved roadways	OAC rule 3745-17-07(B)(4)	<p>Particulate emissions from unpaved roadways shall not exceed 31.2 TPY from unpaved roadways; see section A.2.b</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust from unpaved roadways; see sections A.2.d through A.2.i</p> <p>There shall be no visible particulate emissions except for a period of 3 minutes during any 60 minute observation period from any unpaved roadway.</p>
	OAC rules 3745-17-08(B), (B)(8), (B)(9)	<p>See A.2.k. below.</p> <p>See A.2.l. below</p>

2. Additional Terms and Conditions

- 2.a** The paved roadways and parking areas that are covered by this permit and subject to the above-mentioned requirements are listed below:

paved roadways:

All paved roadways and work areas

- 2.b** The unpaved roadways and parking areas that are covered by this permit and subject to the above-mentioned requirements are listed below:

unpaved roadways:

All unpaved plant roadways and work areas

- 2.c** The permittee shall employ best available control measures on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the paved roadways and parking areas by watering at sufficient treatment frequencies to ensure compliance, speed reduction. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.d** The permittee shall employ best available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved roadways and parking areas with water at sufficient treatment frequencies to ensure compliance and placement of additional aggregate to roadways and work areas when needed. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.e** The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved or unpaved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.

- 2.f** Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled with the control measure(s) specified above for paved surfaces. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas.

Any unpaved roadway or parking area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas.

- 2.g The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
- 2.h Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
- 2.i Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05.
- 2.j The use of used oil as a dust suppressant is prohibited per OAC rule 3745-279-82.
- 2.k Pursuant to paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) do not apply to this emissions unit.
- 2.l Since this emissions unit is not located in an Appendix A area, pursuant to paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) do not apply to the fugitive emissions from this emissions unit.

B. Operational Restrictions

- 1. None

C. Monitoring and/or Recordkeeping Requirements

- 1. Except as otherwise provided in this section, the permittee shall perform inspections of the roadways and parking areas in accordance with the following frequencies:

<u>paved roadways and parking areas</u>	<u>minimum inspection frequency</u>
All paved roadways and work areas	daily
<u>unpaved roadways and parking areas</u>	<u>minimum inspection frequency</u>
All unpaved roadways and work areas	daily

- 2. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance

with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

3. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
4. 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 4.d. shall be kept separately for (i) the paved roadways and parking areas and (ii) the unpaved roadways and parking areas, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

D. Reporting Requirements

1. The permittee shall submit quarterly 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; and
 - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation-

Particulate emissions shall not exceed 32.29 tons per year from unpaved roadways.

Particulate emissions shall not exceed 1.1 tons per year from paved roadways.

Applicable Compliance Method-

Compliance shall be determined by calculation using AP-42 equations:

Unpaved Roads and Parking areas

Average emissions all vehicles (equation 1a) $E = K(s/12)^a (W/3)^b$

Assume $K = 4.9$ $a = .7$ $b = 0.45$ $s(\text{silt}) = 7.1$ $w(\text{weight}) = 52.5$ and $P = 140$ days

E = size specific emission factors; k , a , b , c , and d are empirical constants; s = silt content, W = vehicle weight, P = # of wet days (at least 01 inch of precipitation per year)

$$E = 4.9(7.1/12)^{0.7} (52.5/3)^{0.45}$$

$$4.9 * .69 * 3.63 = 12.27 \text{ lbs/VMT}$$

Emissions adjusted for normal rainfall (equation 2)

$$E = [(365 - P)/365] = E_{\text{ext}} \text{ lbs/VMT}$$

$$12.27[(365 - 140)/365]$$

$$12.27[0.62] = 7.61 \text{ lbs/VMT}$$

$$7.61 * 16380 \text{ VMT/yr} * 0.5 \text{ (50\% control efficiency watering) } / 2000 =$$

$$31.2 \text{ Tons per year/particulate emissions}$$

Paved roadways

$$E_{\text{ext}} = k(s/2)^{0.65} (W/3)^{1.5} (1 - P/4N) = \text{lbs/VMT}$$

k = particle size multiplier = 0.082 (PM-30 Table 13.2-1.1 AP-42 10/02)

s = surface material silt content = 5.5% (supplied by permittee)

W = average vehicle weight (tons) = 5.91

P = 140 number of wet days

N = number of days in year

$$E_{\text{ext}} = 0.082(5.5/2)^{0.65} (5.91/3)^{1.5} (1 - 140 / 4 * 365)$$

$$E_{\text{ext}} = 0.082(1.93) (2.77) (0.90) = 0.39/\text{VMT}$$

VMT = Vehicle Miles Traveled

Maximum miles traveled = 28,900 miles

$0.39 \text{ lb/VMT} * 28,900 \text{ miles/yr} * 1 \text{ ton}/2,000 \text{ lbs} = 5.63 \text{ TPY}$ (.2 control efficiency) = 1.1 tons PE per year from paved roadways. (Table 13.2-1.1 AP-42 10/02)

The above emission rates for paved roadways were calculated using AP-42 chapter 13.2.1 (10/2002) equation 1: $E = k (s/12)^a (W/3)^b$ and equation 2 $E_{ext} = E[(365-P)/365]$. Emissions for unpaved roadways were determined using AP-42 chapter 13.2.2 (10/2001). Control efficiencies determined by using RACM Manual (OEPA, DAPC 1980) Chapter 2.1.1.4

- b. Emission limitation-
There shall be no visible emissions except for a period not to exceed one minute during any 60 minute observation period from paved roadways.

Applicable Compliance Method-

Compliance with the emission limitation for the paved roadways and parking areas 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-
There shall be no visible emissions except for a period not to exceed three minutes during any 60 minute observation period from unpaved roadways.

Applicable Compliance Method-

Compliance with the emission limitation for the unpaved roadways and parking areas 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.

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

- The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P001 - 74 TPH Truck Mix Concrete Batch Plant	OAC rule 3745-31-05(A)(3)	Particulate emissions shall not exceed 18.10 pound per hour and 71.1 tons per year. See A.2.a., below.
Concrete Batch Plant: Transfer of Sand and Aggregate to Elevated Bins	OAC rule 3745-31-05(A)(3)	<p>There shall be no visible particulate emissions except for a period of 3 minutes during any 60 minute observation period</p> <p>The drop height of the front-end bucket shall be minimized to the extent possible in order to minimize or eliminate visible emissions of fugitive dust.</p> <p>The sand and aggregate loaded into the elevated bins shall have a moisture content sufficient to minimize or eliminate visible emissions of fugitive dust</p>
Concrete Batch Plant: Pneumatic transfer of Portland Cement to Elevated Silo w/Fabric Filter	OAC rule 3745-31-05(A)(3)	<p>The silos shall be adequately enclosed and vented to the fabric filter: the enclosure shall be sufficient to eliminate visible emissions of fugitive dust at the point of capture.</p> <p>The fabric filter shall achieve an outlet emission rate of not greater than 0.030 grain of particulate per dry standard cubic foot of exhaust gases or there shall be no visible emissions from the outlet, whichever is less stringent.</p>
Concrete Batch Plant: Weigh hopper loading of cement, sand and aggregate	OAC rule 3745-31-05(A)(3)	The weight hopper shall be adequately enclosed and vented to a fabric filter. The

Concrete Batch Plant: Truck loading (truck mix)	OAC rule 3745-31-05(A)(3)	fabric filter shall achieve an outlet emission rate of not greater than 0.030 grain of particulate per dry standard cubic foot of exhaust gases or there shall be no visible emissions from the outlet, whichever is less stringent.
		The hopper discharge area and central-mix drum opening shall be enclosed sufficiently to minimize or eliminate visible emissions of fugitive dust to the extent possible with good engineering design.
		The charging boot, water ring, and control system shall be used around the hopper discharge area and shall be adequately enclosed to eliminate visible emissions to the extent possible with good engineering design.
		There shall be no visible particulate emissions except for a period of 3 minutes during any 60 minute observation period
	OAC rule 3745-17-07(B)	See A.2.b.

2. Additional Terms and Conditions

- 2.a** The requirements established pursuant to OAC rule 3745-17-07(A) and OAC rule 3745-17-11(B) are less stringent than the requirements of OAC rule 3745-31-05(A)(3).
- 2.b** The permittee shall employ best available control measures for the above-identified material handling operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. These control measures are listed below.

Material Handling Operation
 Transfer of Sand and Aggregate Silos
 Weight Hopper Loading
 Truck Loading

Control Measures
 Wet suppression and front-end loader use
 Fabric Filter(s)
 Fabric Filter
 Charging Boot, Water Ring or Fabric Filter

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of 3745-31-05(A)(3).

B. Operational Restrictions

1. The maximum annual product rate for this facility is 648,240 tons of concrete per year or less.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain annual records of the cubic yards or tons of concrete produced and transported from the facility.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from each material handling operation (each fabric filter stack, each sand and/or aggregate transfer point, truck loading) serving this emissions unit. No inspection is required on days the material handling operations are not in operation. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. whether the emissions are representative of normal operations;
 - b. if the emissions are not representative of normal operations, the cause of the visible emissions;
 - c. the total duration of any visible emission incident; and
 - d. any corrective actions taken to eliminate the visible emissions.

The information in above shall be kept separately for each material handling operation identified in Section A.2.c.

D. Reporting Requirements

1. The permittee shall submit annual reports indicating the total cubic yards or total tons of concrete produced. The reports shall be submitted annually, shall cover the previous calendar year and shall be submitted to the appropriate Ohio EPA District Office or local air agency.
2. The permittee shall submit quarterly excursion (deviation) reports which (a) identify any days during which daily visible emission checks were not performed in accordance with C.2 above, (b) identify all days during which any visible emissions were not representative of normal operations, (c) identify the cause and duration of the non-representative visible emissions, (d) describe any actions taken to correct the non-representative visible particulate emissions. These reports shall be submitted by January 31 and July 31 of each year to the Central District Office.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):

Emission Limitation:

0.030 gr/dscf

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance by emission testing in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

a. Emission Limitation:

Combined particulate emissions shall not exceed 24.5 lbs/hr from the operations and equipment which constitute this emissions unit.

Concrete Batch Plant

Pound Per Hour Calculations

Sand emission factor - AP-42,11.12-2, (10/2001)

$E = 0.0021$ pound PE/ton sand transferred

$E = 0.0021 (27.38 \text{ TPH/Sand})(3 \text{ transfer points}) = 0.17 \text{ Lb PE /Hr.}$

Aggregate emission factor handled

$ER = 0.0069$ pound PE/ton aggregate transferred

$ER = 0.0069 * (31.82 \text{ TPH/Agg.})(3 \text{ transfer points}) = 0.65 \text{ pounds PE/hr}$

Pneumatic unloading of cement to silo * 2 Silos

AP-42 factor 0.72 lb/ton (Table 11.12-2)

$ER = 0.72 * 200 \text{ tons cement/hr (2-100 ton cap. silos)} * (1 - 0.99) = 1.44 \text{ lbs/PE/hr}$

Weigh Hopper Loading:

AP-42 factor 0.051 lb/ton (Table 11.12-2)

$ER = 0.0051 * 59.2 \text{ tons sand and agg/hr} * = 0.30 \text{ lb/PE/hr}$

Mixer Load-in (truck-mix):

AP-42 factor 0.21 lb/ton (Table 11.12-2, SCC 30501110)

$ER = 0.21 * 74 \text{ tons cement/hr} * = 15.54 \text{ lbs/PE/hr}$

b. Ton Per Year Calculations

Sand emission factor

$$E = 0.0021 (239849 \text{ TPY}) / 2000 = 0.3 \text{ TPY}$$

Aggregate emission factor handled

$$ER = 0.0069 * 278743 \text{ tons Agg/yr} / 2,000 \text{ lb} = 1.0 \text{ TPY/PE}$$

Pneumatic unloading of cement to silo * 2 Silos

$$ER = 0.72 * 110376 \text{ tons cement/yr} * (1 - 0.99) * 1 \text{ ton}/2,000 \text{ lb} = \text{tons PE/yr} = 0.4 \text{ TPY/PE}$$

(0.72 uncontrolled factor, control device 99% efficient as per application 12/4/03)

Weigh Hopper Loading:

$$ER = 0.0051 * 518592 \text{ tons sand and agg /yr} * 1 \text{ ton}/2,000 \text{ lb} = 1.3 \text{ TPY/PE}$$

Mixer Load-in (truck-mix):

$$ER = 0.21 * 648,240 \text{ tons /yr} * 1 \text{ ton}/2,000 \text{ lb} = 68.1 \text{ TPY/PE}$$

c. Emission limitation-

There shall be no visible particulate emissions from cement silo bag house during pneumatic loading

Applicable Compliance Method -

Compliance shall be demonstrated by visible emissions monitoring performed in accordance with OAC rule 3745-17-03(B)(7) using the methods and procedures specified in USEPA Method 22.

F. Miscellaneous Requirements

1. None