



State of Ohio Environmental Protection Agency

Street Address:

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Columbus, OH 43215

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

**RE: FINAL PERMIT TO INSTALL  
FRANKLIN COUNTY  
Application No: 01-08832**

**CERTIFIED MAIL**

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

**DATE: 6/22/2004**

Hi Way Paving Inc  
James Maher  
4343 Weaver Court North  
Hilliard, OH 43026

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: 6/22/2004  
Effective Date: 6/22/2004**

**FINAL PERMIT TO INSTALL 01-08832**

Application Number: 01-08832  
APS Premise Number: 0125973049  
Permit Fee: **\$3300**  
Name of Facility: Hi Way Paving Inc  
Person to Contact: James Maher  
Address: 4343 Weaver Court North  
Hilliard, OH 43026

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**4343 Weaver Court North  
Hilliard, Ohio**

Description of proposed emissions unit(s):  
**Portable concrete batch plant.**

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**

<b><u>Pollutant</u></b>	<b><u>Tons Per Year</u></b>
PE	30.6
CO	11.6
NOx	43.5
SO2	0.7
VOC	1.2

**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>
B001 - no .2 diesel fuel oil-fired, reciprocating electrical generator, 5.4 MMBtu/hr	OAC rule 3745-31-05(A)(3)	Carbon monoxide (CO) emissions from this emissions unit shall not exceed 4.59 lbs/hr and 11.6 tons/yr.
		Nitrogen oxide (NO <sub>x</sub> ) emissions from this emissions unit shall not exceed 17.3 lbs/hr and 43.5 tons/yr.
		Particulate emissions (PE) from this emissions unit shall not exceed 0.33 lb/hr and 0.8 ton/yr.
		Sulfur Dioxide (SO <sub>2</sub> ) emissions from this emissions unit shall not exceed 0.27 lb/hr and 0.7 ton/yr.
		Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 0.5 lb/hr and 1.2 ton/yr.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-07(A)(1)	See section A.2.a below.
	OAC rule 3745-17-11(B)(5)(b) OAC rule 3745-21-07(B) OAC rule 3745-23-06(B)	Visible particulate emissions from this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
		The emission limitations specified by these rules are less stringent than the emissions

limitations established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

- 2.a** The permittee shall burn only No. 2 diesel fuel containing less than 0.05% sulfur by weight in this emissions unit.
- 2.b** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-07(B) and OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

**B. Operational Restrictions**

- 1. The maximum annual operational hours for this emissions unit shall not exceed 5040 hours.

**C. Monitoring and/or Recordkeeping Requirements**

- 1. The permittee shall maintain records of the annual operational hours for this emission unit.
- 2. For each day during which the permittee burns a fuel other than diesel fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- 3. For each shipment of fuel oil received, the permittee shall maintain records of the permittee's or supplier's analysis for sulfur content.

**D. Reporting Requirements**

- 1. The permittee shall submit semiannual deviation (excursion) reports that identify each day which a fuel other than diesel fuel with a maximum sulfur content 0.05% by weight was burned in this emissions unit.
- 2. The permittee shall submit annual deviation (excursion) reports which identify all exceedances of the annual operating hour limitation for this emissions unit. These reports are due by the January 31 of each year.

**E. Testing Requirements**

- 1. Compliance with the emission limitations in Section A.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - a. **Emission Limitation:**  
CO emissions from this emissions unit shall not exceed 4.59 lbs/hr and 11.6 tons/yr.

**Applicable Compliance Method:**

Compliance with the short term limitation shall be demonstrated by multiplying the emission factor, 0.85 lb/MMBtu of actual heat input (AP-42, Table 3.4-1, 10/1996), by the maximum heat input, 5.4 MMBtu/hr. Compliance with the ton(s) per year limitation shall be demonstrated by multiplying the emission factor, 0.85 lb/MMBtu of actual heat input (AP-42, Table 3.4-1, 10/1996), by the maximum heat input, 5.4 MMBtu/hr, and the maximum hourly usage, 5040 hours per year (application, 02/19/04), and dividing by 2,000 pounds per ton.

$$\text{CO} - 0.85 \text{ lb/MMBtu} * 5.4 \text{ MMBtu/hr} = 4.59 \text{ lbs/hr}$$

$$\text{CO} - 0.85 \text{ lb/MMBtu} * 5.4 \text{ MMBtu/hr} * 5040 \text{ hrs/yr} / 2,000 \text{ lbs/ton} = 11.6 \text{ tons/yr}$$

**b. Emission Limitation:**

NO<sub>x</sub> emissions from this emissions unit shall not exceed 17.3 lbs/hr and 43.5 tons/yr.

**Applicable Compliance Method:**

Compliance with the short term limitation shall be demonstrated by multiplying the emission factor, 3.2 lbs/MMBtu of actual heat input (AP-42, Table 3.4-1, 10/1996), by the maximum heat input, 5.4 MMBtu/hr. Compliance with the ton(s) per year limitation shall be demonstrated by multiplying the emission factor, 3.2 lbs/MMBtu of actual heat input (AP-42, Table 3.4-1, 10/1996), by the maximum heat input, 5.4 MMBtu/hr, and the maximum hourly usage, 5040 hours per year (application, 02/19/04), and dividing by 2,000 pounds per ton.

$$\text{NO}_x - 3.2 \text{ lbs/MMBtu} * 5.4 \text{ MMBtu/hr} = 17.3 \text{ lbs/hr}$$

$$\text{NO}_x - 3.2 \text{ lbs/MMBtu} * 5.4 \text{ MMBtu/hr} * 5040 \text{ hrs/yr} / 2,000 \text{ lbs/ton} = 43.5 \text{ tons/yr}$$

**c. Emission Limitation:**

PE from this emissions unit shall not exceed 0.33 lb/hr and 0.8 ton/yr.

**Applicable Compliance Method:**

Compliance with the short term limitation shall be demonstrated by multiplying the emission factor, 0.062 lb/MMBtu of actual heat input (AP-42, Table 3.4-2, 10/1996), by the maximum heat input, 5.4 MMBtu/hr. Compliance with the ton(s) per year limitation shall be demonstrated by multiplying the emission factor, 0.062 lb/MMBtu of actual heat input (AP-42, Table 3.4-1, 10/1996), by the maximum heat input, 5.4 MMBtu/hr, and the maximum hourly usage, 5040 hours per year (application, 02/19/04), and dividing by 2,000 pounds per ton.

$$\text{PE} - 0.062 \text{ lb/MMBtu} * 5.4 \text{ MMBtu/hr} = 0.33 \text{ lb/hr}$$

$$\text{PE} - 0.062 \text{ lb/MMBtu} * 5.4 \text{ MMBtu/hr} * 5040 \text{ hrs/yr} / 2,000 \text{ lbs/ton} = 0.8 \text{ ton/yr}$$

- d. Emission Limitation:  
SO<sub>2</sub> emissions from this emissions unit shall not exceed 0.27 lb/hr and 0.7 ton/yr.

Applicable Compliance Method:

Compliance with the short term limitation shall be demonstrated by multiplying the emission factor, 1.01 lbs/MMBtu of actual heat input (AP-42, Table 3.4-1, 10/1996), by the sulfur content of the fuel in percent (0.05%, application, 05/02/5003) and the maximum heat input, 5.4 MMBtu/hr. Compliance with the ton(s) per year limitation shall be demonstrated by multiplying the emission factor, 1.01 lbs/MMBtu of actual heat input (AP-42, Table 3.4-1, 10/1996), by the sulfur content of the fuel in percent (0.05%, application, 05/02/5003), the maximum heat input, 5.4 MMBtu/hr, and the maximum hourly usage, 5040 hours per year (application, 02/19/04), and dividing by 2,000 pounds per ton.

$$\text{SO}_2 - 1.01 \text{ lbs/MMBtu} * 0.05 * 5.4 \text{ MMBtu/hr} = 0.27 \text{ lb/hr}$$

$$\text{SO}_2 - 1.01 \text{ lbs/MMBtu} * 0.05 * 5.4 \text{ MMBtu/hr} * 5040 \text{ hrs/yr} / 2,000 \text{ lbs/ton} = 0.7 \text{ ton/yr}$$

- e. Emission Limitation:  
VOC emissions from this emissions unit shall not exceed 0.5 lb/hr and 1.2 ton/yr.

Applicable Compliance Method:

Compliance with the short term limitation shall be demonstrated by multiplying the emission factor, 0.09 lb/MMBtu of actual heat input (AP-42, Table 3.4-1, 10/1996), by the maximum heat input, 5.4 MMBtu/hr. Compliance with the ton(s) per year limitation shall be demonstrated by multiplying the emission factor, 0.09 lb/MMBtu of actual heat input (AP-42, Table 3.4-1, 10/1996), by the maximum heat input, 5.4 MMBtu/hr, and the maximum hourly usage, 5040 hours per year (application, 02/19/04), and dividing by 2,000 pounds per ton.

$$\text{VOC} - 0.09 \text{ lbs/MMBtu} * 5.4 \text{ MMBtu/hr} = 0.5 \text{ lb/hr}$$

$$\text{VOC} - 0.09 \text{ lbs/MMBtu} * 5.4 \text{ MMBtu/hr} * 5040 \text{ hrs/yr} / 2,000 \text{ lbs/ton} = 1.2 \text{ ton/yr}$$

- f. Emission Limitation:  
Visible particulate emissions from this emissions unit shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the visible particulate limitation shall be demonstrated by the methods outlined in 40 CFR Part 60, Appendix A, Method 9.

**F. Miscellaneous Requirements**

None

**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>
<p>F001 - concrete batch plant storage piles</p> <p>load-in and load-out of storage piles (see Section A.2.a for identification of storage piles)</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>Particulate emissions (PE) from this emissions unit shall not exceed 2.1 tons per year.</p> <p>No visible emissions except for one minute in any hour.</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.b, A.2.c, and A.2.f).</p>
<p>wind erosion from storage piles (see Section A.2.a for identification of storage piles)</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>No visible emission except for one minute in any hour.</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.d through A.2.f).</p>
	<p>OAC rule 3745-17-07 (B)(6)  OAC rule 3745-17-08 (B), (B)(6)</p>	<p>The emission limitation specified by these rules are less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>

**2. Additional Terms and Conditions**

- 2.a The storage piles that are covered by this permit and subject to the above-mentioned requirements include all sand and aggregate storage piles.
- 2.b The permittee shall employ best available control measures on all load-in and load-out operations associated with the storage piles 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 water application to ensure compliance. Nothing

in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.c The above-mentioned control measure(s) shall be employed for each load-in and load-out operation of each storage pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during any such operation until further observation confirms that use of the measure(s) is unnecessary.
- 2.d The permittee shall employ best available control measures for wind erosion from the surfaces of all storage piles 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 water application to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.e The above-mentioned control measure(s) shall be employed for wind erosion from each pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measure(s) shall not 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 ensure compliance with the above-mentioned applicable requirements.
- 2.f 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 OAC rules 3745-17-08 and 3745-31-05.

**B. Operational Restrictions**

None

**C. Monitoring and/or Recordkeeping Requirements**

- 1. Except as otherwise provided in this section, the permittee shall perform inspections of each load-in operation at each storage pile in accordance with the following frequencies:

<u>storage pile identification</u>	<u>minimum load-in inspection frequency</u>
all storage piles	weekly

- 2. Except as otherwise provided in this section, the permittee shall perform inspections of each load-out operation at each storage pile in accordance with the following frequencies:

<u>storage pile identification</u>	<u>minimum load-out inspection frequency</u>
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1. The permittee shall submit semiannual 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.

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 visible emission limitations for the storage piles identified above 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)(c) of OAC rule 3745-17-03.
2. Emissions Limitation:  
PE emissions from this emissions unit shall not exceed 2.1 tons per year.

### Applicable Compliance Method:

Compliance with the annual emissions limitation shall be determined by the summation of emissions from the load in/load out of the storage piles and the emissions from wind erosion.

Sand/aggregate load-in/load-out emissions are determined based upon the following equation as found in (AP-42, Fifth edition, Section 13.2.4-1)(1/95)

$$E = k(0.0032)(U/5)^{1.3}/(M/2)^{1.4} \text{ lbs/ton}$$

E = emission factor for aggregate unloading

k = particle size multiplier = 0.74 for PE

U = mean wind speed (mph) = 8.1

M = material moisture content = 4% for all materials

$$E = 0.74(0.0032)(8.1/5)^{1.3}/(4/2)^{1.4} \text{ lbs/ton} = 0.002 \text{ lbs PE/ton for all materials}$$

The total emissions from the load-in/load-out of the storage piles is determined by use of the above emission factor and the annual process weight rate for each storage pile, as described below:

<u>Storage Pile</u>	<u>Annual PWR in Tons</u>	<u>Annual Emissions in Tons</u>
Coarse aggregate	861,840	0.9
Sand	589,680	0.6

Therefore, the total annual emissions from the load in/load-out activities equals 1.5 tons.

Based upon the following equation, which follows from Section 13.2.4.3 of AP-42, the emissions due to wind erosion are calculated as follows:

$$E = 1.7(s/1.5)((365-p)/235)(f/15)(365)(A/2000)$$

E = the emission factor in lbs/day/acre

s = the silt content of the stored materials = 2(Coarse aggregate) and 7(Fine aggregate)

p = the number of days w more than 0.1 inch of precipitation = 136.7 days

f = the percentage of time the wind speed exceeds 12 mph = 9.9

A = the totals surface area of the specific storage pile

$$E = 1.7(2/1.5)((365-136.7)/235)(9.9/15)(365)(0.5/2000) = \text{lbs/day/acre for coarse agg}$$

$$E = 1.7(7/1.5)((365-136.7)/235)(9.9/15)(365)(0.5/2000) = \text{lbs/day/acre for fine agg}$$

Based upon the surface area of each storage pile type, the contribution to the total particulate emissions from each storage pile type is as follows:

<u>Storage Pile</u>	<u>Acres</u>	<u>Annual Emissions in Tons</u>
Coarse aggregate	0.5	0.13
Sand	0.5	0.46

The total emissions from wind erosion are 0.59 tons per year. Summation of the emissions due to load in/load-out and wind erosion results in a total annual particulate emission rate of 2.1 tons.

**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 - 940 tons/hr Central Mix Concrete Batch Plant:	OAC rule 3745-31-05(A)(3)	Combined particulate emissions shall not exceed 12.09 lbs/hr and 27.7 tons/yr from the operations and equipment which constitute this emissions unit.
Transfer of Sand and Aggregate to Elevated Bins	OAC rule 3745-31-05(A)(3)	<p>The visible emissions of fugitive dust shall not exceed 20 percent opacity, as a 3-minute average.</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>
Portland Cement, Fly Ash and Slag Silos	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>
	OAC rule 3745-31-05(A)(3)	The weight hopper shall be adequately enclosed and vented to a fabric filter. The

Weight Hopper Loading of  
Cement, Fly Ash, Slag, Sand  
and Aggregate

OAC rule 3745-31-05(A)(3)

Central Mix Drum Loading

OAC rule 3745-31-05(A)(3)

Truck Loading

OAC rule 3745-17-08(B)  
OAC rule 3745-17-11(B)

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 Central Mix Drum shall be adequately enclosed and vented to a fabric filter. 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.

The visible emissions of fugitive dust shall not exceed 20 percent opacity, as a 3-minute average.

The truck loading area shall be adequately enclosed and vented to a fabric filter. 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.

The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

## 2. Additional Terms and Conditions

- 2.a** 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.

<u>Material Handling Operation</u>	<u>Control Measures</u>
Transfer of Sand and Aggregate Silos and Central Mix Drum	Wet suppression and front-end loader use
Weight Hopper Loading	Fabric Filter(s)
Truck Loading	Fabric Filter
	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 central mix concrete facility is 3,659,040 tons per year or less.

**C. Monitoring and/or Record-keeping Requirements**

1. The permittee shall maintain annual records of the 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 inspections are 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.a.

**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, (e) identify all periods during which the annual tons of concrete produced exceeded the limitation found in B.1.

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

- a. **Emission Limitation:**

Each 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.

**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), or if required, compliance with the visible emission limitation for the material handling operation(s) identified above shall be determined in accordance with Test Method 22 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, 1997.

- b. **Emission Limitation:**

Combined particulate emissions shall not exceed 12.09 lbs/hr from the operations and equipment which constitute this emissions unit.

**Applicable Compliance Method:**

Compliance may be established by summing the emissions from aggregate and sand transfer, weigh hopper loading, cement and cement supplement unloading to elevated silo, and central mixer loading. Emission factors and calculations are based on a mix design consisting of 44% Aggregate, 36% Sand, 7% Cement, 7% Cement Supplement(Slag/Fly Ash) and 6% Water.

**Aggregate & Sand Transfer Emission Calculations:**

Aggregate feed hopper loading=314 tons/hr max transfer rate

Aggregate feed hopper to conveyor =314 tons/hr max transfer rate

Aggregate conveyor to bin=314 tons/hr max transfer rate  
Sand feed hopper loading=215 tons/hr max transfer rate  
Sand feed hopper to conveyor=215 tons/hr max transfer rate  
Sand conveyor to bin =215 tons/hr max transfer rate  
Aggregate emission factor =0.0069 lb/ton (AP-42, 11.12, 10/01)  
Sand emission factor=0.0021 lb/ton (AP-42, 11.12, 10/01)

314 tons/hr x 0.0069 lb/ton = 2.1666 lbs PE/hr  
314 tons/hr x 0.0069 lb/ton = 2.1666 lbs PE/hr  
314 tons/hr x 0.0069 lb/ton = 2.1666 lbs PE/hr  
215 tons/hr x 0.0021 lb/ton = 0.4515 lb PE/hr  
215 tons/hr x 0.0021 lb/ton = 0.4515 lb PE/hr  
215 tons/hr x 0.0021 lb/ton = 0.4515 lb PE/hr

Aggregate & Sand Transfer Total= 7.85 lbs PE/hr

Weigh Hopper Loading Emission Calculations:  
Bins to weigh hopper=528 tons/hr max transfer rate  
Emission factor =0.0051 lb/ton (AP-42, 11.12, 10/01)

528 tons/hr x 0.0051 lb/ton = 2.69 lbs PE/hr

Weigh Hopper Loading Total = 2.69 lbs PE/hr

Cement & Cement Supplement Unloading Emission Calculations:  
Truck to silo =82 tons/hr max transfer rate  
Supplement emission factor=3.14 lbs/ton (AP-42, 11.12, 10/01)  
Filter control efficiency=99.8%

82 tons/hr x 3.14 lb/ton x (1-0.998) = 0.51 lb PE/hr

Cement & Cement Supplement Unloading Total = 0.51 lb PE/hr

Central Mixer Loading Emission Calculations:  
Weigh hopper to central mixer = 528 tons/hr max transfer rate  
Emission factor = 0.22 lb/ton (AP-42, 11.12, 10/01)  
Filter = 99.9% (AP-42, 11.12, 10/01)

528 tons/hr x 0.22 lb/ton x (1-0.999) = 1.05 lbs PE/hr

Central Mixer Loading Total = 1.05 lbs PE/hr

Total Emissions:  
Aggregate & Sand Transfer Total = 7.85 lbs PE/hr  
Weigh Hopper Loading Total =2.69 lbs PE/hr

$$\begin{aligned}
 \text{Cement \& Cement Supplement Unloading Total} &= 0.51 \text{ lb PE/hr} \\
 \text{Central Mixer Truck Loading Total} &= \quad \quad \quad + \frac{1.05 \text{ lbs PE/hr}}{12.09 \text{ lbs PE/hr}}
 \end{aligned}$$

- c. Emission Limitation:  
 Combined particulate emissions shall not exceed 27.7 tons per year from the operations and equipment which constitute this emissions unit.

Applicable Compliance Method:  
 Compliance may be established by summing the emissions from aggregate and sand transfer, weigh hopper loading, cement and cement supplement unloading to elevated silo, and central mixer loading. Emission factors and calculations are based on a mix design consisting of 44% Aggregate, 36% Sand, 7% Cement, 7% Cement Supplement(Slag/Fly Ash) and 6% Water.

Aggregate & Sand Transfer Emission Calculations:

Aggregate feed hopper loading	= 1,580,040 tons/yr max transfer rate
Aggregate feed hopper to conveyor	= 1,580,040 tons/yr max transfer rate
Aggregate conveyor to bin	= 1,580,040 tons/yr max transfer rate
Sand feed hopper loading	= 1,081,080 tons/yr max transfer rate
Sand feed hopper to conveyor	= 1,081,080 tons/yr max transfer rate
Sand conveyor to bin	= 1,081,080 tons/yr max transfer rate
Aggregate emission factor	= 0.0069 lb/ton (AP-42, 11.12, 10/01)
Sand emission factor	= 0.0021 lb/ton (AP-42, 11.12, 10/01)

$$\begin{aligned}
 1,580,040 \text{ tons/yr} \times 0.0069 \text{ lb/ton} \times \text{ton}/2000 \text{ lbs} &= 5.5 \text{ tons PE/yr} \\
 1,580,040 \text{ tons/yr} \times 0.0069 \text{ lb/ton} \times \text{ton}/2000 \text{ lbs} &= 5.5 \text{ tons PE/yr} \\
 1,580,040 \text{ tons/yr} \times 0.0069 \text{ lb/ton} \times \text{ton}/2000 \text{ lbs} &= 5.5 \text{ tons PE/yr} \\
 1,081,080 \text{ tons/yr} \times 0.0021 \text{ lb/ton} \times \text{ton}/2000 \text{ lbs} &= 1.14 \text{ tons PE/yr} \\
 1,081,080 \text{ tons/yr} \times 0.0021 \text{ lb/ton} \times \text{ton}/2000 \text{ lbs} &= 1.14 \text{ tons PE/yr} \\
 1,081,080 \text{ tons/yr} \times 0.0021 \text{ lb/ton} \times \text{ton}/2000 \text{ lbs} &= 1.14 \text{ tons PE/yr}
 \end{aligned}$$

Aggregate & Sand Transfer Total = 19.9 tons PE/yr

Weigh Hopper Loading Emission Calculations:

Bins to weigh hopper	= 2,661,648 tons/yr max transfer rate
Emission factor	= 0.0051 lb/ton (AP-42, 11.12, 10/01)

$$2,661,648 \text{ tons/yr} \times 0.0051 \text{ lb/ton} \times \text{ton}/2000 \text{ lbs} = 6.8 \text{ tons PE/yr}$$

Weigh Hopper Loading Total = 6.8 tons PE/yr

Cement & Cement Supplement Unloading Emission Calculations:

Truck to silo	= 416,631 tons/yr max transfer rate
Supplement emission factor	= 3.14 lbs/ton (AP-42, 11.12, 10/01)

Filter control efficiency = 99.9%

416,631 tons/yr x 3.14 lbs/ton x (1-0.999) x ton/2000 lbs= 0.7 ton PE/yr

Cement & Cement Supplement Unloading Total = 0.7 ton PE/yr

Central Mixer Loading Emission Calculations:

Weigh hopper to truck = 2,661,648 tons/yr max transfer rate

Emission factor = 0.22 lb/ton (AP-42, 11.12, 10/01)

Filter/boot control efficiency = 99.9% (AP-42, 11.12, 10/01)

2,661,648 tons/yr x 0.22 lb/ton x (1- 0.999) x ton/2000 lbs= 0.3 tons PE/yr

Truck Loading Total = 0.3 ton PE/yr

Total Emissions:

Aggregate & Sand Transfer Total = 19.9 tons PE/yr

Weigh Hopper Loading Total = 6.8 tons PE/yr

Cement & Cement Supplement Unloading Total = 0.7 ton PE/yr

Central Mixer Loading Total = + 0.3 tons PE/yr  
27.7 tons PE/yr

d. Emission Limitation:

The visible emissions of fugitive dust from Transfer of Sand and Aggregate to Elevated Bins and Truck loading shall not exceed 20 percent opacity, as a 3-minute average.

Applicable Compliance Method:

If required, compliance with the visible emission limitation for the material handling operation(s) identified above shall be determined in accordance with Test Method 9 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, 1997.

**F Miscellaneous Requirements**

1. For permittees who applied for a portable source as defined in OAC Rule 3745-31-01(LL), the permittee is subject to the following terms and conditions:

Notice to Relocate a Portable or Mobile Source

Pursuant to OAC rule 3745-31-03(A)(1)(p)(i), the permittee of a portable or mobile emissions unit may relocate within the State of Ohio without first obtaining a PTI providing the following criteria are met:

- a. The portable emissions unit is equipped with the best available control technology for such portable emissions unit (best available control technology as defined in the summary table found in section A.1 of this permit);
- b. The portable emissions unit is operating pursuant to a currently effective permit to operate (PTO);
- c. The applicant has provided proper notice of intent to relocate the portable emissions unit to the Director and the appropriate field office having jurisdiction over the new site within a minimum of thirty days prior to the scheduled relocation; and
- d. In the Director and the appropriate field office's judgement, the proposed site is acceptable under the rule 3745-15-07 of the Administrative Code.

In the alternative, pursuant to OAC rule 3745-31-03(A)(1)(p)(ii), the permittee of a portable or mobile emissions unit may relocate within the State of Ohio without first obtaining a PTI providing the criteria of OAC rule 3745-31-05(F) are met.

In order for the Director and the appropriate field office having jurisdiction over the new site to determine compliance with all of the above criteria, the owner or operator of the portable or mobile emissions unit must file a "Notice of Intent to Relocate", within the specified time frame prior to the relocation of the emissions unit with the Director and the appropriate field office having jurisdiction over the new site.

Upon receipt of the notice, the Director and/or appropriate field office having jurisdiction over the new site, will evaluate the request in accordance with the above criteria.

Failure to submit said notification and to receive the Ohio EPA's approval prior to relocation of the emissions unit may result in fines and civil penalties.