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
FRANKLIN COUNTY
Application No: 01-8044

CERTIFIED MAIL

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

DATE: September 29, 1999

Arrow Concrete Company
Douglas M Rexroad II
816 McKinley Avenue
Columbus, OH 43222

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
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

cc: USEPA
DAPC, CDO

FINAL PERMIT TO INSTALL 01-8044

Application Number:	01-8044
APS Premise Number:	0125042406
Permit Fee:	**$1400**
Name of Facility:	Arrow Concrete Company
Person to Contact:	Douglas M Rexroad II
Address:	816 McKinley Avenue Columbus, OH 43222

Location of proposed air contaminant source(s) [emissions unit(s)]:
816 McKinley Avenue
Columbus, **Ohio**

Description of proposed emissions unit(s):
PORTABLE CONCRETE BATCH PLANT WITH AGGREGATE BATCHER, CEMENT SILO, SAND, AGGREGATE, FLYASH STORAGE.

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 Related to Monitoring and Recordkeeping 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 are inadequate 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 prove to be inadequate 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 application must be made to the Director for the installation or modification of any other emissions unit(s).

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 thirty (30) 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

Pollutant	Tons Per Year
Particulate matter	22.81

PART II: SPECIAL TERMS AND CONDITIONS

A. Applicable Emissions Limitation s 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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Concrete Batch Plant (P002)	OAC rule 3745-31-05	Particulate matter emissions shall not exceed 2.88 lbs/hr and 5.8 TPY from the equipment identified below.
Transfer of sand and aggregate to elevated bins	OAC rule 3745-17-07(B)	The visible emissions of fugitive dust shall not exceed 20 percent opacity as a 3-minute average.
	OAC rule 3745-17-08(B)	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 from the conveyor loading area. The sand and aggregate loaded into the elevated bins shall have a moisture content sufficient to minimize or eliminate visible emissions of fugitive dust from the conveyor and transfer point to bins.
Pneumatic transfer of cement and flyash to cement and flyash silo	OAC rule 3745-31-05	The silo 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. The fabric filter shall achieve an outlet emission rate of not greater than 0.020 grain of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible emissions from the outlet, whichever is less stringent.

	OAC rule 3745-17-11	See A.2.2.b.
Weigh hopper loading of cement, sand and aggregate	OAC rule 3745-31-05	The weigh hopper shall be adequately enclosed and vented to the cement silo. The enclosure shall be sufficient to eliminate visible emission of fugitive dust at the point of capture.
	OAC 3745-17-11	See A.2.2.b.
Central-mix drum loading	OAC rule 3745-17-07(B)	The visible emissions of fugitive dust shall not exceed 20 percent opacity as a 3-minute average.
	OAC rule 3745-31-05	The hopper discharge area and central-mix drum opening shall be enclosed with a charging boot and vented to a fabric filter; the charging boot shall be sufficient to minimize or eliminate visible emissions of fugitive dust to the extent possible with good engineering design. The fabric filter shall achieve an outlet emission rate of not greater than 0.020 grain of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible emissions from the outlet, whichever is less stringent.
	OAC rule 3745-17-11	See A.2.2.b.

2. Additional Terms and Conditions

2.a The 2.88 lbs/hr limitation was established for PTI purposes to reflect the potential to emit for this emission unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.

2.b. The emission limitations established pursuant to OAC rule 3745-31-05 are more stringent than the emission limitations established by this rule.

B. Operational Restrictions

1. The maximum annual operating hours for P002 shall not exceed 4,000 hours.

2. Notice to Relocate a Portable or Mobile Source

Pursuant to Ohio Administrative Code (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;

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 Central District Office within a minimum of thirty days prior to the scheduled relocation; and,

d. in the Central District 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 source identified may relocate the source within the State of Ohio without first obtaining a PTI providing the following criteria of OAC rule 3745-31-05(F) are met:

a. The source owner or operator possesses a current Ohio EPA PTI, PTO or registration status.

b. The source is equipped with best available technology.

c. The source owner has identified the proposed site to Ohio EPA.

d. Ohio EPA has determined that the source, at the proposed site will have an acceptable environmental impact.

e. A public notice, consistent with Chapter 3745-47 of the Administrative Code, is published in the county where the proposed site is located.

f. The owner of the proposed site has provided the source owner with approval or equivalent declaration that it is acceptable to the site owner to move the source to this proposed site.

g. The source owner has provided Ohio EPA with fifteen days written notice of the relocation. Any site approvals issued by Ohio EPA shall be valid for no longer than three years and are subject to renewal.

In order for the Director to determine compliance with all of the above criteria, the owner or operator of the portable source must submit a request for permission to pre-approve the proposed site to the Central District Office or Local Air Agency prior to the relocation of the source. This submission must include the following documentation.

a. A copy of the permit application for all air contaminant emissions units that will be operated at the site and a list of proposed sites.

b. A copy of any current Ohio EPA permit(s) to install and operate.

c. A demonstration that the emissions units to be operated at the proposed site(s) are equipped with Best Available Technology.

d. A demonstration that the owner of the proposed site has provided the source owner with approval or equivalent declaration that it is acceptable to the site owner to move the source to this proposed site.

e. Documentation of proof of publication of the public notice for the new site.

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

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the hours of operation for P002.

2. The permittee shall perform daily checks for any visible particulate emissions from the fabric filter control systems for the weigh hopper and cement silo, while the weigh hopper and silo 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 perform daily checks for any visible particulate emissions from the aggregate transfer points (aggregate bin, weigh hopper, and conveyor belt) while the emissions unit is in operation. The presence or absence of any visible emissions from each transfer point 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.

D. Reporting Requirements

1. This permittee shall submit annual reports of the total operating hours for P002. These reports shall be submitted to the Central District Office by January 31 of each year.

2. The permittee shall submit, on a semi-annual basis, a report which (a) identifies all days during which any visible particulate emissions were observed from the fabric filter control systems and/or from the aggregate transfer points and (b) describes the corrective actions taken to eliminate the visible 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):

   a. Emission limitation:
   0.020 gr/dscf

   Applicable Compliance Method -
   If required, compliance with this mass emission limitation shall be based on stack testing per OAC rule 3745-17-03(B)(7).

   b. Emission Limitation -
   2.88 lbs/hr particulate matter

   Applicable Compliance Method -
   Compliance shall be determined by totaling the following products:

      i. Sand and aggregate transfer to elevated bin:

      The maximum hourly production rate of 240 tons/hr is multiplied by the Fifth Edition, January, 1995 AP-42 emission factor, 0.029 lb/ton (Table 11.12-2). The resulting uncontrolled emissions rate, 6.96 lbs/hr, is then multiplied by a moisture control factor of 70% (1-.70), resulting in a controlled emissions rate of 2.088 lbs/hr.

      ii. Cement unloading to elevated silo (pneumatic)

      The maximum hourly production rate of 240 tons/hr is multiplied by the Fifth Edition, January, 1995 AP-42 emission factor, 0.27 lb/ton (Table 11.12-2). The resulting uncontrolled emission rate, 64.8 lbs/hr, is then multiplied by a fabric filter control of 99% (1-0.99), resulting in a controlled emission rate of 0.648 lbs/hr.

      iii. Weigh Hopper Loading:

      The maximum hourly production rate of 240 tons/hr is multiplied by the Fifth Edition, January, 1995 AP-42 emission factor, 0.02 lb/ton (Table 11.12-2). The resulting uncontrolled emission rate, 4.8 lbs/hr, is then multiplied by a fabric filter control factor of 99% (1-0.99), resulting in a controlled emission rate of 0.048 lb/hr.

iv. Mixer Loading (central-mix):

The maximum hourly production rate of 240 tons/hr is multiplied by the Fifth Edition, January, 1995 emission factor, 0.04 lb/ton (Table 11.12-2). The resulting uncontrolled emissions rate of 4.8 lbs/hr, is then multiplied by a fabric filter control factor of 99% (1-0.99), resulting in a controlled emission rate of 0.096 lb/hr.

The lb/hr emission rate for each of the four areas are summed to determine compliance with the 2.88 lbs/hr emission limitation.

c. Emission limitation:
5.8 tons particulate matter per year

Applicable Compliance Method -
Compliance shall be determined by totaling the following products:

The 5.8 tons per year emissions limitation was developed by multiplying the 2.88 pounds per hour emissions limitation by a maximum annual operating schedule of 4,000 hours per year. Therefore, compliance shall be based upon the 12-month summation of the number of operating hours multiplied by the 2.88 pounds per hour emissions limitation, and divided by 2000 pounds per ton.

d. Emission Limitation -
20 percent opacity as a 3-minute average

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

e. Emission Limitation -
No visible emissions

Applicable Compliance Method -
Compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(4) using methods and procedures specified in USEPA Method 22.

F. Miscellaneous Requirements

1. The permittee shall comply with any applicable State and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the source(s).

2. The permittee 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.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Batch concrete plant-sand and aggregate material storage piles (F003). Operations are load-in and load-out of storage piles and wind erosion from storage piles.	OAC rule 3745-31-05	Particulate matter emissions shall not exceed 13.33 lbs per hour. Particulate matter emissions shall not exceed 1.71 tons per year. There shall be no visible particulate emissions except for a period of time not to exceed one minute during any sixty-minute observation period. Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. See A.2.a through A.2.e. below
	OAC rule 3745-17-07 (B)	The emission limitations established pursuant to OAC rule 3745-31-05 are more stringent than the emission limitations established by this rule. The control measure requirements established pursuant to OAC rule 3745-31-05 are more stringent than the control measure requirements established by this rule.

2. Additional Terms and Conditions

2.a. 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 treat the load-in and load-out material(s) with water and/or any other suitable dust suppression chemicals to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.b. 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.c. 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 treat the load-in and load-out material(s) with water and/or any other suitable dust suppression chemicals to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.d. 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.e. 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.

2.f. The 13.33 lb/hr emission limitation was established to reflect the potential to emit for F003. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.

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 on a daily basis.

2. Except as otherwise provided in this section, the permittee shall perform inspections of each load-out operation at each storage pile on a daily basis.

3. Except as otherwise provided in this section, the permittee shall perform inspections of the wind erosion from pile surfaces associated with each storage pile on a daily basis.

4. No inspection shall be necessary for wind erosion from the surface of a storage pile when the pile is covered with snow and/or ice and for any storage pile activity 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.

5. The purpose of the inspections is to determine the need for implementing the control measures specified in this permit for load-in and load-out of a storage pile, and wind erosion from the surface of a storage pile. The inspections shall be performed during representative, normal storage pile operating conditions.

6. The permittee may, upon receipt of written approval from the Ohio EPA Central District Office, 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.

7. 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, for wind erosion from pile surfaces, the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measure(s).

   The information required in 7.d. shall be kept separately for (i) the load-in operations, (ii) the load-out operations, and (iii) the pile surfaces (wind erosion), and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

8. The permittee shall maintain monthly records of the total tons of sand and aggregate loaded and unloaded from the storage piles.

D. 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; 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. Emission Limitation-

   13.33 lbs/hr

   Applicable Compliance Method-
   Compliance shall be determined by totaling the following products:

   ii. wind erosion from sand and aggregate storage piles

   The surface area of the sand storage pile (0.4 acre) is multiplied by the emission factor of 2.18 lbs/day/acre and divide by 8 hrs per day to obtain particulate matter emissions in lbs per hr from sand storage piles. The emission factor is obtained from the following equation from U.S. EPA's "Control of Open Fugitive Dust Sources", September, 1998.

   E= 1.7*(s/1.5)*[(365-p)/235]*(f/15) lb/day/acre

   where:
   E = emission factor
   s = silt content of the stored sand, weight percent (1%)
   p = number of days with greater than 0.01 inches of precipitation = 140
   f = percentage of time wind speed exceeds 12 mph = 30%

   The surface area of the aggregate storage pile (0.4 acre) is multiplied by the emission factor of 1.3 lbs/day/acre and divide by 8 hrs per day to obtain particulate matter emissions in lbs per hr from aggregate storage piles. The emission factor is obtained from the following equation from U.S. EPA's "Control of Open Fugitive Dust Sources", September, 1998.

   E= 1.7*(s/1.5)*[(365-p)/235]*(f/15) lb/day/acre

   where:

E = emission factor
s = silt content of the stored sand, weight percent (0.6%)
p = number of days with greater than 0.01 inches of precipitation = 140
f = percentage of time wind speed exceeds 12 mph = 30%

The particulate matter emissions from sand and aggregate storage piles are added to obtain the total emissions due to wind erosion from storage piles.

ii. Loading onto storage piles

The maximum quantity of sand loaded (522 tons/hour) is multiplied by an emission factor of 0.0109 lb/ton resulting in an emission rate of 5.69 lbs/hr. The emission factor is obtained from the following equation from AP-42, Fifth Edition, Section 13.2.4.

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

where:
E = emission factor
k = particle size multiplier = 0.74 for PM
U = mean wind speed (mph) =10.5
M = material moisture content = 3.0%

The maximum quantity of aggregate loaded (378 tons/hour) is multiplied by an emission factor of 0.00235 lb/ton resulting in an emission rate of 0.89 lb/hr. The emission factor is obtained from the following equation from AP-42, Fifth Edition, Section 13.2.4.

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

where:
E = emission factor
k = particle size multiplier = 0.74 for PM
U = mean wind speed (mph) =10.5
M = material moisture content = 1.0%

The particulate matter emissions from sand and aggregate storage piles are added to obtain the total emissions due to loading onto storage piles.

iii. Loadout from piles

The maximum quantity of sand unloaded (522 tons/hour) is multiplied by an emission factor of 0.0109 lb/ton resulting in an emission rate of 5.69 lbs/hr. The emission factor is obtained from the following equation from AP-42, Fifth Edition, Section 13.2.4.

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

where:

E = emission factor
k = particle size multiplier = 0.74 for PM
U = mean wind speed (mph) =10.5
M = material moisture content = 3.0%

The maximum quantity of aggregate unloaded (378 tons/hour) is multiplied by an emission factor of 0.00235 lb/ton resulting in an emission rate of 0.89 lb/hr. The emission factor is obtained from the following equation from AP-42, Fifth Edition, Section 13.2.4.

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

where:
E = emission factor
k = particle size multiplier = 0.74 for PM
U = mean wind speed (mph) =10.5
M = material moisture content = 1.0%

The particulate matter emissions from sand and aggregate storage piles are added to obtain the total emissions due to unloading of sand and aggregate.

2. Emission Limitation-

1.71 tons/yr

Applicable Compliance Method-
Compliance shall be determined by totaling the following products:

iii. wind erosion from sand and aggregate storage piles

The surface area of the sand storage pile (0.4 acre) is multiplied by the emission factor of 2.18 lbs/day/acre and with 365 days per year and divided by 2,000 pounds per ton to obtain particulate matter emissions in tons per year from sand storage piles. The emission factor is obtained from the following equation from U.S. EPA's "Control of Open Fugitive Dust Sources", September, 1998.

E= 1.7*(s/1.5)*[(365-p)/235]*(f/15) lb/day/acre

where:
E = emission factor
s = silt content of the stored material, weight percent (1%)
p = number of days with greater than 0.01 inches of precipitation = 140
f = percentage of time wind speed exceeds 12 mph = 30%

The surface area of the aggregate storage pile (0.4 acre) is multiplied by the emission factor of 1.3 lbs/day/acre and with 365 days per year and divided by 2,000 pounds per ton to obtain particulate matter emissions in tons per year from aggregate storage piles. The emission

factor is obtained from the following equation from U.S. EPA's "Control of Open Fugitive Dust Sources", September, 1998.

E= 1.7*(s/1.5)*[(365-p)/235]*(f/15) lb/day/acre

where:
E = emission factor
s = silt content of the stored material, weight percent (0.6%)
p = number of days with greater than 0.01 inches of precipitation = 140
f = percentage of time wind speed exceeds 12 mph = 30%

The particulate matter emissions from sand and aggregate storage piles are added to obtain the total emissions due to wind erosion from storage piles.

ii. Loading onto storage piles

Multiply the actual quantity of sand loaded (tons/year) by an emission factor of 0.0109 lbs/ton and divide by 2000 lbs per ton to obtain particulate matter emissions in tons per year. The emission factor is obtained from the following equation from AP-42, Fifth Edition, Section 13.2.4.

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

where:
E = emission factor
k = particle size multiplier = 0.74 for PM
U = mean wind speed (mph) =10.5
M = material moisture content = 3.0%

Multiply the actual quantity of aggregate loaded (tons/year) by an emission factor of 0.00235 lbs/ton and divide by 2000 lbs per ton to obtain particulate matter emissions in tons per year. The emission factor is obtained from the following equation from AP-42, Fifth Edition, Section 13.2.4.

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

where:
E = emission factor
k = particle size multiplier = 0.74 for PM
U = mean wind speed (mph) =10.5
M = material moisture content = 1.0%

The particulate matter emissions from sand and aggregate storage piles are added to obtain the total emissions due to loading of storage piles.

iii. Loadout from piles

Multiply the actual quantity of sand unloaded (tons/year) by an emission factor of 0.0109 lbs/ton and divide by 2000 lbs per ton to obtain particulate matter emissions in tons per year. The emission factor is obtained from the following equation from AP-42, Fifth Edition, Section 13.2.4.

$E = k(0.0032)((U/5)^{1.3}/(M/2)^{1.4})$ lbs/ton
where:
E = emission factor
k = particle size multiplier = 0.74 for PM
U = mean wind speed (mph) =10.5
M = material moisture content = 3.0%

Multiply the actual quantity of aggregate unloaded (tons/year) by an emission factor of 0.00235 lbs/ton and divide by 2000 lbs per ton to obtain particulate matter emissions in tons per year. The emission factor is obtained from the following equation from AP-42, Fifth Edition, Section 13.2.4.

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

where:
E = emission factor
k = particle size multiplier = 0.74 for PM
U = mean wind speed (mph) =10.5
M = material moisture content = 1.0%

The particulate matter emissions from sand and aggregate storage piles are added to obtain the total emissions due to unloading of sand and aggregate.

The ton per year emission limitation was developed by using maximum loading and unloading rates of 115,625 tons per year and 84,375 tons per year of sand and aggregate respectively as supplied by the permittee. The actual tons of sand and aggregate loaded and unloaded shall be determined by the 12-month summation of the monthly records of the total tons of sand and aggregate loaded and unloaded from the storage piles as required by Section C.8.

3. Emission limitation

There shall be no visible particulate emissions except for a period of time not to exceed one minute during any sixty-minute observation period

Applicable Compliance Method

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.

F. Miscellaneous Requirements

None

PART II: SPECIAL TERMS AND CONDI TIONS [Continued]

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
New and existing, paved roadways (with unpaved shoulders) and unpaved roadways and paved and unpaved parking areas (F004).	OAC rule 3745-31-05	Particulate matter emissions shall not exceed 15.3 tons per year. There shall be no visible particulate emissions except for a period of one minute during any 60 minute observation period from a paved roadway. There shall be no visible particulate emissions except for a period of three minutes during any 60 minute observation period from an unpaved roadway. See A.2. below
	OAC rule 3745-17-07 (B)	The emission limitations established pursuant to OAC rule 3745-31-05 are more stringent than the emission limitations established by this rule.
	OAC rule 3745-17-08(B)	The emission limitations established pursuant to OAC rule 3745-31-05 are more stringent than the emission limitations established by this rule.

2. Additional Terms and Conditions

2.a 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 applying water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance.

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

2.b. The permittee shall employ best available control measures on the unpaved shoulders of all paved roadways 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 shoulders of all paved roadways by applying water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.c. 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 by applying water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.d. 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.e. 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.f. 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.g. 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.h. 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 rule 3745-17-08.

2.i. The use of used oil as a dust suppressant is prohibited per OAC rule 3745-279-82.

B. Operational Restrictions

1. A maximum speed limit of 5 miles per hour for vehicular traffic shall be posted and enforced on the roadways and parking areas of this facility.

C. Monitoring and/or Recordkeeping Requirements

1. Except as otherwise provided in this section, the permittee shall perform inspections of all the roadways and parking 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 Ohio EPA Central District Office, 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 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. Emission Limitation-

15.3 tons particulate matter/year.

Applicable Compliance Method-
Multiply the maximum cubic yards of concrete produced per year (yd3/yr) with the AP-42 Emission Factor (Table 11.12-2) of 0.02 lbs/yd3 and divide by 2,000 lbs per ton to obtain particulate matter emissions from unpaved roadways and parking areas in tons per year.
Particulate matter emissions from paved roadways and parking areas are obtained by multiplying the total vehicle miles traveled per year with an emission factor of 7.06 lbs/VMT and dividing by 2,000 pounds per ton. The resulting uncontrolled emissions rate, 70 tons/yr, is then multiplied by a fugitive dust control factor of 80% (1-.80), resulting in a controlled emissions rate of 14 tons/yr. The emission factor is obtained from the following equation from AP-42, fifth edition, Section 13.2.1.

$E = k(sL/2)^{0.65} (W/3)^{1.5}$ lbs/VMT

where:
E = emission factor lbs/VMT
k = particle size multiplier = 0.082
sL = silt loading on road surface = 12g/m2 for concrete batching (Table 13.2.1-1, AP-42)
W = average vehicle weight (tons) =26.9

$E = 0.082(12/2)^{0.65} (26.9/3)^{1.5}$ lbs/VMT = 7.06 lbs/VMT

The particulate matter emissions from paved and unpaved roads and parking areas are added to obtain total emissions from vehicular traffic. The emission limitation was developed by using a total of 19,842 VMT/yr and 125,000 cubic yards of concrete produced per year as supplied by the permittee.

2. Emission limitation-
20 percent opacity as a one minute average.

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.

3. Emission limitation-
20 percent opacity as a three minute average.

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 3745-17-03.

F. Miscellaneous Requirements

None