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
DELAWARE COUNTY
Application No: 01-08037

DATE: 7/20/00

CERTIFIED MAIL

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

Oberfield's Inc. Plant 1
Dan Hodge
528 London Rd
Delaware, OH 43015-0362

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, Manager
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA **CDO**

FINAL PERMIT TO INSTALL 01-08037

Application Number: 01-08037

APS Premise Number: 0121019642

Permit Fee: **$3400**

Name of Facility: Oberfield's Inc. Plant 1

Person to Contact: Dan Hodge

Address: 528 London Rd
Delaware, OH 43015-0362

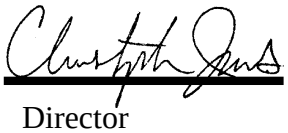
Location of proposed air contaminant source(s) [emissions unit(s)]:
528 London Rd
Delaware, **Ohio**

Description of proposed emissions unit(s):
Mixing of cement for sand and gravel and silo load for cement.

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
PM	**8.7**

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
F001 - Unpaved roadways and loading areas.	OAC rule 3745-31-05	Particulate emissions shall not exceed 5.1 ton per year. There shall be no visible particulate emissions except for a period of three minutes during any 60 minute observation period from an unpaved roadway.
	OAC rule 3745-17-07(B)	The visible particulate emission limitation 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)	See A.2.a. below

2. Additional Terms and Conditions

2.a The permittee shall employ best available control measures on the unpaved roadways and loading 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 loadings areas by application of 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 all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable

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

2.c 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.d 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.e 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.f 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.g 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.h 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 10 miles per hour for vehicular traffic shall be posted and enforced on the roadways and parking areas of this facility.

2. The permittee shall apply chemical dust suppressants to unpaved roadways and loading areas at a minimum of two times per year.

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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 for 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.

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2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

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

a. Emission Limitation-
5.1 ton particulate matter/year.

Applicable Compliance Method-
Compliance shall be determined by:

Unpaved roadways (Forklift) AP-42 emission factor section 13.2.2

$E = (k(s/12)^{0.8}(W/3)^{0.5})/(M/0.2)^{0.4}$ lb/VMT
k = particle size multiplier = 10 (PM-30 Table 13.2.2-2 AP-42)
s = surface material silt content = 12% (supplied by permittee)
W = average vehicle weight (tons) = 10 (forklift)
M = surface material moisture content = 5% (assumed based on content as delivered)

$E = 10(12/12)^{0.65}(10/3)^{0.5}/(5/0.2)^{0.4}$ * (365-120)/365) * (1-0.4) control efficiency-oiling
E = 10(1.8/3.6)* (0.67) * (0.6) = 2.0 lb/VMT (average)

Maximum miles traveled per year = 512 miles (forklift)

2.0 lb/VMT * 512 miles/yr * 1 ton/2,000 lbs = 0.5 ton PM for forklift

Unpaved roadways (Semi and block truck) AP-42 emission factor section 13.2.2

$E = ((k(s/12)^{0.8}(W/3)^{0.5})/(M/0.2)^{0.4})$ lbs/VMT
k = particle size multiplier = 10 (PM-30 Table 13.2.2-2 AP-42)
s = surface material silt content = 12% (supplied by permittee)
W = average vehicle weight (tons) = 35 (semi-truck) & 25 (block truck)
M = surface material moisture content = 5% (assumed based on content as delivered)

$E = 10(12/12)^{0.65}(30/3)^{0.5}/(5/0.2)^{0.4}$ * (365-120)/365) * (1-0.4) control efficiency-oiling
E = 10(3.2/3.6)* (0.67) * (0.6) = 5.2 lb/VMT (average)
Maximum miles traveled = 926 (semi-truck) +836 (block truck) =1,762 miles

5.2 lb/VMT * 1,762 miles/yr * 1 ton/2,000 lbs = 4.6 ton PM for semi and block truck

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Total PM emissions from roadways F001 = 5.1 ton PM/yr

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

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

F. Miscellaneous Requirements

None

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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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
F002 - Sand and gravel storage with material handling and wind erosion	OAC rule 3745-31-05	Particulate emissions shall not exceed 0.004 pound per hour and 0.17 ton 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.
	OAC rule 3745-17-08(B)	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 store the load-in and load-out material(s) in a wind-gard and maintain low storage pile height to ensure compliance. Nothing in this

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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 reduce height of the load-in and load-out material(s) and/or treat with 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 0.07 lb/hr emission limitation was established to reflect the potential to emit for F002. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.

B. Operational Restrictions

1. The permittee shall unload sand and aggregate into and store within a three-sided enclosed bin.

C. Monitoring and/or Recordkeeping Requirements

1. 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.

2. 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

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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 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.

4. 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.

5. 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 5.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.

6. 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

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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-
0.004 lb/hr

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

Sand and aggregate unloading

i. Sand unloading (3 tons/hr) with emission factor (AP-42, Section 13.2.4)

$E = k(0.0032)((U/5)^{1.3}/(M/2)^{1.4})$ lbs/ton
E = emission factor for sand unloading
k = particle size multiplier = 0.74 for PM
U = mean wind speed (mph) = 5
M = material moisture content = 5.0%

$E = 0.74(0.0032)((5/5)^{1.3}/(5.0/2)^{1.4})$ lbs/ton = 0.0007 lbs PM/ton sand
Particulate Emissions = (3)x(0.0007 lbs/ton) = 0.002 lb/hr

ii. Aggregate unloading (3 tons/hr) with emission factor (AP-42, Section 13.2.4)

$E = k(0.0032)((U/5)^{1.3}/(M/2)^{1.4})$ lbs/ton
E = emission factor for aggregate unloading
k = particle size multiplier = 0.74 for PM
U = mean wind speed (mph) = 5
M = material moisture content = 5.0% wind erosion from sand and aggregate storage piles

$E = 0.74(0.0032)((5/5)^{1.3}/(5.0/2)^{1.4})$ lbs/ton = 0.0.007 lbs PM/ton aggregate
Particulate Emissions = (3)x(0.0007 lbs/ton) = 0.002 lbs/hr

2. Emission Limitation-
0.17 ton/yr

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

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i. Maximum sand and gravel unloaded = 13,500 ton/year
0.007 lb/ton* 22,500 ton/yr * 1 ton/2,000 lb = 0.08 tpy

ii. Maximum sand and gravel transferred =13,500 ton/year
0.014 lb/ton * 22,500 ton/yr * 1 ton/2,000 lb = 0.16 tpy

iii. Storage piles-wind erosion (0.04 acres)

The Fifth Edition, January, 1995 AP-42 emission factor, 3.5 lb/acre/day (Table 11.12-2). is then multiplied by the average pile surface area of 0.04 acres times 365days/yr divided by 2000 lb/ton resulting in a emission rate of 0.03 ton/yr.

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

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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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P001 - Concrete block plant number 1 with cement silos, weigh hopper and central mix	OAC rule 3745-31-05(A)(3)	Particulate emissions shall not exceed 1 pound per hour and 3.4 ton per year. See A.2.a., below. Compliance with this rule also includes compliance with the requirements of OAC rules 3745-17-07(B) and 3745-17-08(B).
	OAC rule 3745-17-07(B)	The visible emissions of fugitive dust shall not exceed 20 percent opacity as a 3-minute average.
Delivery and transfer of sand and aggregate to elevated bins	OAC rule 3745-17-08(B)	The sand and aggregate shall be delivered to an enclosed hopper and conveyed within an enclosure to minimize or eliminate visible emissions of fugitive dust. See C.1., below
Pneumatic Transfer of Cement to Cement Silo.	OAC rule 3745-17-08(B)	The silo shall be adequately enclosed and vented to the fabric filter; pneumatic unloading shall be done at such a rate to eliminate visible particulate emissions from the silo and fabric filter. The fabric filter shall achieve an outlet emission rate of no greater than 0.030 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.

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		See C.1.,below..
Weigh Hopper Loading of Cement, Sand, and Gravel	OAC rule 3745-17-11	See A.2.b.
	OAC rule 3745-17-08(B)(3)	The weigh hopper shall be enclosed sufficiently to minimize or eliminate visible emissions of fugitive dust to the extent possible with good engineering design.
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 3745-17-08(B)(3)	The hopper discharge area and central-mix drum opening shall be enclosed sufficiently to minimize or eliminate visible emissions of fugitive dust to the extent possible with good engineering design.
	OAC rule 3745-17-07(B)	The visible emissions of fugitive dust shall not exceed 20 percent opacity as a 3-minute average.

2. Additional Terms and Conditions

2.a The 1 lb PM/hr limitation was established for PTI purposes to reflect the potential to emit for material unloading, transfer and mixing. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.

2.b The particulate emissions limitations established pursuant to OAC rule 3745-31-05 are more stringent than the particulate emissions limitations established by OAC rule 3745-17-11.

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks for any visible particulate emissions from the dust collector with fabric filter serving the cement silo while this emissions unit is in operation. The presence or absence of any visible emissions from the dust collector with fabric filter shall be noted in an operations log. If any visible emissions are observed from the system, corrective actions shall be taken to eliminate the visible emissions and these actions shall also be noted in the operations log.

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D. Reporting Requirements

1. 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 on the cement silos 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:
   The fabric filter on the cement silo bon vent shall achieve an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases.

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

   b. Emission Limitation:
   Particulate emissions from this emissions unit shall not exceed 1 pound per hour and 3.4 ton per year.

   Applicable Compliance Method:
   Compliance with the hourly particulate emissions limitation shall be determined from sum total of particulate emissions from the material handling and transfer points identified below (i - ix). Since the particulate emissions from each source represent the facilities maximum hourly potential to emit, no record keeping is required to show compliance with these limitations.

      i. Sand and Gravel Dump to Receiving Hopper

      Multiply the maximum hourly and annual process weight rates of 26 tons per hour and 128,500 tons per year by the AP-42, Predictive Emission Factor of 0.0027 lb/ton (Predictive Emissions Factor for Aggregate Drop, Section 13.2.4-6, 5th Edition). This results in particulate emissions rates of 0.07 pound per hour and 0.17 ton per year.

      ii. Sand and Gravel Drop from Receiving Hopper to Conveyor Belt

      Multiply the maximum hourly and annual process weight rates of 26 tons per hour and 128,500 tons per year by the AP-42, Predictive Emission Factor of 0.0027 lb/ton

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(Predictive Emissions Factor for Aggregate Drop, Section 13.2.4-6, 5th Edition). This results in particulate emissions rates of 0.07 pound per hour and 0.17 ton per year.

iii. Sand and Gravel transfer from Conveyor Belt to Sand and Gravel Hoppers

Multiply the maximum hourly and annual process weight rates of 26 tons per hour and 128,500 tons per year by the AP-42, Predictive Emission Factor of 0.0027 lb/ton (Predictive Emissions Factor for Aggregate Drop, Section 13.2.4-6, 5th Edition). This results in particulate emissions rates of 0.07 pound per hour and 0.17 ton per year.

iv. Sand and Gravel transfer from Sand and Gravel Hoppers to Conveyor Belt

Multiply the maximum hourly and annual process weight rates of 26 tons per hour and 128,500 tons per year by the AP-42, Predictive Emission Factor of 0.0027 lb/ton (Predictive Emissions Factor for Aggregate Drop, Section 13.2.4-6, 5th Edition). This results in particulate emissions rates of 0.07 pound per hour and 0.17 ton per year.

v. Sand and Gravel Transfer from Conveyor Belt to Weigh Hopper:

Multiply the maximum hourly and annual process weight rates of 26 tons per hour and 154,200 tons per year by the AP-42, Weigh Hopper Loading factor of 0.02 lb/ton (Table 11.12-2, Emission Factor for Concrete Batching, 5th Edition). Assume that the container lid has a control efficiency of 50%. This results in particulate emissions rates of 0.52 pound per hour and 1.54 ton per year.

vi. Pneumatic transfer of Cement to Cement Silo

Multiply the maximum hourly and annual process weight rates of 20 tons per hour and 16,000 tons per year by the AP-42, Cement Unloading factor of 0.27 lb/ton (Table 11.12-2, Emission Factors for Concrete Batching, 5th Edition). Assume that the control device (dust collector with fabric filter) has a capture efficiency of 99%, and a control efficiency of 99%. This results in particulate emissions rates of 0.054 pound per hour and 0.015 ton per year.

vii. Transfer from Cement Silo to Weigh Hopper

Multiply the maximum hourly and annual process weight rates of 2.5 tons per hour and 13,196 tons per year by the AP-42, Weigh Hopper Loading factor of 0.02 lb/ton (Table 11.12-2, Emission Factor for Concrete Batching, 5th Edition). Assume that the container lid has a control efficie efficiency of 50%. This results in particulate emissions rates of 0.025 pound per hour 0.066 ton per year.

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viii. Central Mix Drum Loading (Cement):

Multiply the maximum hourly and annual process weight rates of 2.50 tons per hour and 13,196 tons per year by the AP-42, Mixer Loading (central mix) factor of 0.04 lb/ton (Table 11.12-2, Emission Factor for Concrete Batching, 5th Edition). Assume that the drum enclosure provides a control efficiency of 50%. This results in particulate emissions rates of 0.05 pound per hour and 0.132 ton per year.

ix. Central Mix Drum Loading (Sand and Gravel):

Multiply the maximum hourly and annual process weight rates of 18.5 tons per hour and 97,505 tons per year by the AP-42, Mixer Loading (central mix) factor of 0.04 lb/ton (Table 11.12-2, Emission Factor for Concrete Batching, 5th Edition). Assume that the drum enclosure provides a control efficiency of 50%. This results in particulate emissions rates of 0.37 pound per hour 0.97 ton per year.

The pound per hour emission rate for each source are summed to determine compliance with the 1.3 lb/hr emission limitation.

The ton per year emission limitation for each source are summed to determine compliance with the 3.4 ton/year emission limitation.

c. Emission Limitation:
Visible particulate emissions from any fugitive emissions source shall not exceed 20 percent opacity as a 3-minute average, except as provided by rule.

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.

d. Emission Limitation:
There shall be no visible emissions from cement silo baghouse during pneumatic unloading.

Applicable Compliance Method:
Compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(7) using methods and procedures specified in USEPA Method 22.

F. Miscellaneous Requirements

None

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NEW SOURCE REVIEW FORM B

PTI Number: 01-08037 Facility ID: 0121019642

FACILITY NAME Oberfield's Inc. Plant 1

FACILITY DESCRIPTION Mixing of cement for sand and gravel and silo load for cement CITY/TWP Delaware

SIC CODE 3272 SCC CODE 3-05-011-99 EMISSIONS UNIT ID F001

EMISSIONS UNIT DESCRIPTION Unpaved roadways and loading areas.

DATE INSTALLED 1980

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment				5.1
PM_{10}					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES: Compliance with applicable rules and use of a dust suppressant.

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? YES NO

IDENTIFY THE AIR CONTAMINANTS:

NEW SOURCE REVIEW FORM B

PTI Number: 01-08037 Facility ID: 0121019642

FACILITY NAME Oberfield's Inc. Plant 1

FACILITY DESCRIPTION Mixing of cement for sand and gravel and silo load for cement CITY/TWP Delaware

SIC CODE 3272 SCC CODE 3-05-011-99 EMISSIONS UNIT ID F002

EMISSIONS UNIT DESCRIPTION Sand and gravel storage with material handling and wind erosion

DATE INSTALLED March 1996

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter				0.004	0.17
PM_{10}					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
Enter Determination Compliance with applicable rules and partial enclosure during transfer with windgard for storage piles

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? YES x NO

IDENTIFY THE AIR CONTAMINANTS:

NEW SOURCE REVIEW FORM B

PTI Number: 01-08037 Facility ID: 0121019642

FACILITY NAME Oberfield's Inc. Plant 1

FACILITY DESCRIPTION Mixing of cement for sand and gravel and silo load for cement CITY/TWP Delaware

SIC CODE 3272 SCC CODE 3-05-011-09 EMISSIONS UNIT ID P001

EMISSIONS UNIT DESCRIPTION Concrete block plant number 1 with cement silos, weigh hopper and central mix

DATE INSTALLED March 1996

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter				1.0	3.4
PM_{10}					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY?

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? YES NO

IDENTIFY THE AIR CONTAMINANTS:

NEW SOURCE REVIEW FORM B

PTI Number: 01-08037 Facility ID: 0121019642

FACILITY NAME Oberfield's Inc. Plant 1

FACILITY DESCRIPTION	Mixing of cement for sand and gravel and silo load for cement	CITY/TWP	Delaware

Please describe any hard copy information is being submitted with this recommendation (Please send hard copy information to Pam McGraner, DAPC Central Office - Air Quality Modeling and Planning):

NONE

Please provide any additional permit specific notes as you deem necessary:

New Source Review Discussion
PTI 01-08037 Oberfield's Plant #1

A. General Information

Oberfield's installed unpaved roadways and loading areas in 1980 and will be identified as emission unit F001. The load-in, load out, and storage piles for sand and aggregate had an increase in process weight rate in 1996 and is permitted as emission unit F002. Concrete block plant #1 was constructed in January 1996 and will be identified as emission unit P001. Manufacture includes sand and aggregate transfer to overhead storage hoppers, pneumatic transfer of cement to elevated silos, and transfer of sand and aggregate to weigh hoppers and central mix plant.

B. Applicable Regulations

F001- Truck and forklift traffic on unpaved roadways under OAC Rule 3745-17-08(B)(2) requires the periodic application of suitable dust suppression chemicals to limit fugitive particulate emissions. The unpaved roadways are oiled semiannually to control fugitive emissions. Truck traffic on paved roadways under OAC Rule 3745-17-08(B)(8) requires maintaining paved roadways in a clean condition.

Visible particulate limits established pursuant to OAC rule 3745-31-05 are more stringent than the limits established by OAC Rule 3745-17-07(B). Visible particulate emissions from paved roadways are limited to not more than one minute during any sixty-minute observation period. In addition, visible particulate emissions from an unpaved roadway are limited to not more than three minutes during any sixty- minute observation period.under OAC Rule 3745-17-08(B)

F002- The unloading and storage of sand and aggregate requires the implementation of reasonably available control measures (RACM) under OAC Rule 3745-17-08(B) to limit the emission of fugitive particulate matter. Sand and aggregate are unloaded into partially enclosed storage piles and transferred on enclosed conveyors to elevated storage bins. OAC Rule 3745-17-07(B) limits the visible emissions of fugitive dust to less than 20 percent opacity as a 3-minute average.

Emission limitations established pursuant to OAC rule 3745-31-05 are based on emission factors from AP-42 with an applied control efficiency for partial enclosure

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NEW SOURCE REVIEW FORM B

PTI Number: 01-08037 Facility ID: 0121019642

FACILITY NAME Oberfield's Inc. Plant 1

FACILITY DESCRIPTION	Mixing of cement for sand and gravel and silo load for cement	CITY/TWP	Delaware

P001- The pneumatic unloading and transfer of cement to three elevated silos under OAC Rule 3745-17-08(B)(3) requires a collection efficiency sufficient to eliminate visible particulate emissions and an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or no visible emissions from the outlet, whichever is less stringent. Weigh hopper loading of cement, sand and aggregate under OAC rule 3745-17-08(B) requires the installation and use of equipment to adequately enclose and control fugitive dust. The weigh hopper is partially enclosed inside the building to sufficiently eliminate visible particulate emission at the point of capture.

Emission limitations established pursuant to OAC rule 3745-31-05 are based on 100% capture efficiency and emission rates based AP-42 emission factors with an applied control efficiency for the fabric filter.The cement mixer loading under OAC rule 3745-17-08(B) requires the installation and use of equipment to adequately enclose and control fugitive dust. The mix drum is enclosed sufficiently to minimize or eliminate visible particulate emissions to the extent possible with good engineering design.

Emission limitations established pursuant to OAC rule 3745-31-05 are based on emission factors from AP-42 with an applied control efficiency for partial enclosure These limits are more stringent than a limitation established by OAC rule 3745-17-11.

C. PTI Fee explanation

Oberfield's operates under SIC code 3272 and is not subject to reduced fees. At the process weight rate of 26 tons/hr for the weigh hopper and mixer for source P001, the fee of $1,000 would be doubled to $2,000. The paved and unpaved roadways and parking areas (F001) do not have a maximum process weight and a fee of $200 is assessed. At the maximum process weight rate of 20 tons of sand and aggregate transferred per hour, a fee of $800 for F002 would be doubled to $1,600. A total fee of $3,800 is assessed because the facility was constructed in 1996 without obtaining a permit to install.

Please fill in the following for this permit:

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant	Tons Per Year
PM	**8.7**

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