



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL CERTIFIED MAIL  
FRANKLIN COUNTY**

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 01-08139**

**DATE: 2/13/2001**

Shelly Materials Plant 92  
Larry Shively  
Post Office Box 266 8775 Blackbird Lane  
Thornville, OH 43076

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



Permit To Install

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**FINAL PERMIT TO INSTALL 01-08139**

Application Number: 01-08139  
APS Premise Number: 0125041880  
Permit Fee: **\$1400**  
Name of Facility: Shelly Materials Plant 92  
Person to Contact: Larry Shively  
Address: Post Office Box 266 8775 Blackbird Lane  
Thornville, OH 43076

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**2280 Dublin Road**  
**Columbus, Ohio**

Description of proposed emissions unit(s):  
**Roadways parking areas material handling and storage piles.**

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.

Shelly Materials Plant 92  
 PTI Application: 01-08139  
 Issued: 2/13/2001

Facility ID: 0125041880

#### 14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

#### 15. Fees

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

### B. Permit to Install Summary of Allowable Emissions

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PM	34.1

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

**A. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F001 - RAP, sand, gravel and limestone handling operations.	OAC rule 3745-31-05(A)(3)	<p>Particulate emissions shall not exceed 3.9 tons per year.</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emission of fugitive dust (see section A.2.b through A.2.d.).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B)(1).</p>
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust shall not exceed 20% opacity as a 3 minute average.
	OAC rule 3745-17-08(B)	The emission limitation specified in this rule is less stringent than the emissions limitations established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

- 2.a The material handling operation(s) that are covered by this permit and subject to the

requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

- Truck dumping (RAP);
- Truck dumping (crushed gravel and limestone);
- Truck dumping (natural sand);
- Front end loading (RAP);
- Front end loading (crushed gravel and limestone);
- Front end loading (natural sand);
- Five (5) Belt to Belt transfer points for aggregate; and
- Two (2) Belt to Belt transfer points for RAP.

**2.b** The permittee shall employ best available control measures for the above-identified material handling operation(s) 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 perform the following control measure(s) to ensure compliance:

<u>Material Handling Operation(s)</u>	<u>Control Measure(s)</u>
All	Watering

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

**2.c** For each material handling operation that is not adequately enclosed, the above-identified control measures shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the material handling operations until further observation confirms that use of the control measures is unnecessary.

**2.d** Implementation of the above-mentioned control measure(s) 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.e** The 3.9 ton per year particulate emission limitation for this emissions unit was established to reflect the annual potential to emit. Therefore, it is not necessary to develop recordkeeping 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, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

<u>Material Handling Operation(s)</u>	<u>Minimum Inspection Frequency</u>
All	Daily

2. The above-mentioned inspections shall be performed during representative, normal operating conditions.

3. The permittee may, upon receipt of written approval from the 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;
- b. The date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);
- c. The dates the control measure(s) was (were) implemented; and
- d. On a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in 4.d shall be kept separately for each material handling operation identified above, 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 semiannual deviation reports to the Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period that identify any of the following occurrences:

- a. each day during which an inspection was not performed by the required frequency; and
  - b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.

**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:  
Particulate emissions shall not exceed 3.9 tons per year.

**Applicable Compliance Method:**

Compliance with the 3.9 ton per year emissions limitation will be based on the emission factors in AP-42 13.2.4 (1995) and 11.19.2.2 (1995) and the maximum annual production rate.

b. **Emission Limitation**

Visible emissions of fugitive dust shall not exceed 20% opacity as a 3 minute average.

**Applicable Compliance Method**

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-09(B)(3) using the methods and procedures specified in USEPA Method 9.

**F. Miscellaneous Requirements**

None.

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

**A. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F002 - Load-in and load-out of RAP, sand, gravel and limestone storage piles and wind erosion from storage piles (see Section A.2.a for identification of storage piles).	OAC rule 3745-31-05(A)(3)	Particulate emissions shall not exceed 3.9 tons per year.  No visible emissions except for one minute in any hour.  Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.b through A.2.f).
	OAC rule 3745-17-08(B)(6)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(B)(6)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

- 2.a The storage piles that are covered by this permit and subject to the above-mentioned

requirements are listed below:

- (1) Recycled Asphalt Pavement (RAP) Storage Pile
- (2) Natural Sand Storage Pile
- (3) #8 Aggregate Storage Pile
- (4) #57 Aggregate Storage Pile

- 2.b** The permittee shall employ best available control measures on all load-in and load-out operations associated with the storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the load-in and load-out materials with water. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.c** The above-mentioned control measure 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 is necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure shall continue during any such operation until further observation confirms that use of the measure is unnecessary.
- 2.d** The permittee shall employ best available control measures for wind erosion from the surfaces of all storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat each storage pile with water to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.e** The above-mentioned control measure 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 is necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measure shall not be necessary for a storage pile that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements.
- 2.f** Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rules 3745-17-08 and 3745-31-05.

**Shelly Materials Plant 92**  
**PTI Application: 01-09130**  
**Issued**

**Facility ID: 0125041880**

Emissions Unit ID: **F002**

- 2.g** The 3.9 ton per year annual particulate emission limitation for this emissions unit was established to reflect the annual potential to emit. Therefore, it is not necessary to develop recordkeeping 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 in accordance with the following frequencies:

<u>Storage Pile Identification</u>	<u>Minimum Load-in Frequency</u>
All	Daily

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

<u>Storage Pile Identification</u>	<u>Minimum Load-out Frequency</u>
All	Daily

- 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 in accordance with the following frequencies:

<u>Storage Pile Identification</u>	<u>Minimum Wind Erosion Frequency</u>
All	Daily

- 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 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.

#### **D. Reporting Requirements**

1. The permittee shall submit semiannual deviation reports to the Central District Office by January 31 and July 31 of each year that cover the previous 6-month period and 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.
  - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.

#### **E. Testing Requirements**

1. Compliance with the emission limitations specified in section A.I of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
Particulate emissions shall not exceed 3.9 tons per year.  
  
Applicable Compliance Method:  
Compliance with the emission limitation for the storage piles identified above shall be

Emissions Unit ID: **F002**

determined by using the emission factor for storage piles as stated in AP-42, 5th Edition, January 1995, Chapter 13.2.4, Equation (1). This equation will provide the particulate emission factor for the load-in and load-out operations in pounds per ton. The emission factor for wind erosion from the storage piles shall be determined by using the emission factor equation stated in "Control of Open Fugitive Dust Sources," U.S. EPA, September 1988, Chapter 4.1.3, Equation (4-9). The associated emission factors shall be multiplied by the maximum production capacities to obtain the emission rates. The emissions from all load-in and load-out operations and wind erosion shall be summed to obtain the total annual PM emissions.

- b. Emission Limitation:  
No visible emissions except for one minute in any hour.

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 CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F003 - Unpaved roadways and parking areas	OAC rule 3745-31-05(A)(3)	Particulate emissions shall not exceed 26.3 tons per year.
		No visible particulate emissions except for 3 minutes during any 60 minute period.
		Best available control measures that are sufficient to eliminate visible emissions of fugitive dust (see Sections A.2.b through A.2.g).
	OAC rule 3745-17-07(B)(5)	The emissions limitation specified in this rule is less stringent than the emissions limitations established pursuant to OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-08(B)	The emissions limitation specified in this rule is less stringent than the emissions limitations established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

Emissions Unit ID: F003

- 2.a** The unpaved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 375-17-08 are listed below:
- unpaved roadways:
- A. Roadway
  - C. Stock trucks and plant equipment roadways
- unpaved parking areas:
- B. Parking
- 2.b** The permittee shall employ best available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved roadways and parking areas with watering 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 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 an 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 using any combination of flushing, sweeping, and/or watering. Any unpaved 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 of paved roadways and parking areas specified in OAC rule 3745-17-07(B)(4).
- 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 material likely to become airborne shall have such

material 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.

**B. Operational Restrictions**

None.

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

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

<u>Unpaved Roadways</u>	<u>Minimum Inspection Frequency</u>
All	Daily

<u>Unpaved Parking Areas</u>	<u>Minimum Inspection Frequency</u>
All	Daily

- 2. The purpose of the inspection 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 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;
  - b. The date of each inspection where it was determined by the permittee that it was necessary

to implement the control measure(s);

- c. The dates the control measure(s) was (were) implemented; and
- d. On a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

The information in 4.d shall be kept separately for each material handling operation identified above, 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 semiannual deviation reports to the Central District Office by January 31 and July 31 of each year that cover the previous 6-month period and 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.

#### **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:  
Particulate emissions shall not exceed 26.3 tons per year.

**Applicable Compliance Method:**

Compliance with the emission limitation for the unpaved roadways and parking areas identified above shall be determined by using the emission factor for unpaved roadways as stated in AP-42, 5th Edition, September 1998, Chapter 13.2.2. This equation will provide the emission factor for particulate matter in pounds per vehicle mile traveled. This emission factor is then multiplied by the total annual vehicle miles traveled and divided by 2000 pounds to obtain the total annual uncontrolled PM emissions (in tons per year).

- b. Emission Limitation  
No visible particulate emissions except for 3 minutes during any 60 minute period.

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**Shelly**

**PTI A**

**Issued: 2/13/2001**

Emissions Unit ID: **F003**

Applicable Compliance Method:

If required, compliance 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 expected 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.

**NEW SOURCE REVIEW FORM B**

PTI Number: 01-08139 Facility ID: 0125041880

FACILITY NAME Shelly Materials Plant 92

FACILITY DESCRIPTION Roadways, parking areas, material handling and storage piles. CITY/TWP Columbus

SIC CODE 2951 SCC CODE 3-05-002-04 EMISSIONS UNIT ID F001

EMISSIONS UNIT DESCRIPTION RAP, sand, gravel and limestone handling operations.

DATE INSTALLED 1988

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			3.9		3.9
PM <sub>10</sub>					
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 See additional terms and conditions

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? NO

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ N/A

**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: N/A

**NEW SOURCE REVIEW FORM B**

PTI Number: 01-08139

Facility ID: 0125041880

FACILITY NAME Shelly Materials Plant 92

FACILITY DESCRIPTION Roadways narking areas material handling CITY/TWP Columbus

Emissions Unit ID: **F003**

SIC CODE 2951

SCC CODE

3-05-002-03

EMISSIONS UNIT ID

F002

EMISSIONS UNIT DESCRIPTION RAP, sand, gravel and limestone storage piles.

DATE INSTALLED

1988

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			3.9		3.9
PM <sub>10</sub>					
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 See Additional Terms and Conditions

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY?

NO

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT?

\$ N/A

**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:

N/A

**NEW SC**

PTI Num

FACILITY

Emissions Unit ID: **F003**

FACILITY DESCRIPTION Roadways, parking areas, material handling and storage piles. CITY/TWP Columbus

SIC CODE 2951 SCC CODE 3-05-010-90 EMISSIONS UNIT ID F003

EMISSIONS UNIT DESCRIPTION Unpaved Roadways

DATE INSTALLED 1988

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			26.3		26.3
PM <sub>10</sub>					
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 See Additional Terms and Conditions

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? NO

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$N/A

**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: N/A

**NEW SOURCE REVIEW FORM B**

PTI Number: 01-08139

Facility ID: 0125041880

FACILITY NAME Shelly Materials Plant 92

FACILITY DESCRIPTION Roadways, parking areas, material handling CITY/TWP Columbus

Emissions Unit ID: **F003**

**Ohio EPA Permit to Install Information Form** Please describe below any documentation which is being submitted with this recommendation (must be sent the same day). Electronic items should be submitted with the e-mail transmitting the PTI terms, and in software that CO can utilize. If mailing any hard copy, this section must be printed as a cover page. All items must be clearly labeled indicating the PTI name and number. Submit **hard copy items to Pam McGraner, AQM&P, DAPC, Central Office, and electronic files to airpti@epa.state.oh.us**

Please fill out the following. If the checkbox does not work, replace it with an 'X'

	<u>Electronic</u>	<u>Additional information File Name Convention (your PTI # plus this letter)</u>	<u>Hard Copy</u>	<u>None</u>
<u>Calculations (required)</u>	<input checked="" type="checkbox"/>	0000000c.wpd	<input type="checkbox"/>	
<u>Modeling form/results</u>	<input type="checkbox"/>	0000000s.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>PTI Application (complete or partial)*</u>	<input type="checkbox"/>	0000000a.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>BAT Study</u>	<input type="checkbox"/>	0000000b.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Other/misc.</u>	<input type="checkbox"/>	0000000t.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>

\* Mandatory for netting, PSD, nonattainment NSR, 112(g), 21-07(G)(9)(g) and 21-09(U)(2)(f) - 2 complete copies.

Please complete (see comment bubble to the left for additional instructions):

NSR Discussion

Shelly Materials has applied for a permit to install for their handling operations, storage piles, and unpaved roadways at an asphalt plant. RAP, sand, gravel and limestone are the raw materials in their operation. They use a variety of front end loaders and conveyors to handle the aggregate. The roadways and parking areas are all unpaved. Terms and conditions for each of the emissions units were based on templates # 125, # 120, and #103.

Applicable rules include: OAC rule 3745-31-05(A)(3), 3745-17-07(B), and 3745-17-08(B).

Calculations for the emission units are as follows:

**Emission Units:**

**F001: RAP, sand, gravel and limestone handling operations**

**F002: Load-in/load-out of RAP, sand, gravel and limestone storage piles and wind erosion**

**F003: Unpaved roadways and parking areas**

**F001: RAP, sand, gravel and limestone handling operations**

AP-42, section 13.2.4 "Aggregate Handling and Storage Piles" (1/95)

$$E = k(0.0032) * [(U/5)^{1.3} / (M/2)^{1.4}]$$

**2 NEW SOURCE REVIEW FORM B**

PTI Number: 01-08139

Facility ID: 0125041880

FACILITY NAME Shelly Materials Plant 92

FACILITY DESCRIPTION Roadways, parking areas, material handling CITY/TWP Columbus

Emissions Unit ID: **F003**

where:

E= emission factor (pound/ton)

k= particle size multiplier (dimensionless)

U= mean wind speed (mph), and

M= material moisture content(%)

E=?

k= 0.74 (from application, 2/7/2000)

U= 8.7mph (from application, 2/7/2000)

M= 4 (from application, 2/7/2000)

so:

$$E = 0.74 * (0.0032) * [(8.7/5)^{1.3} / (4/2)^{1.4}]$$

$$E = 0.74 * 0.0032 * (2.05454 / 2.63902)$$

$$E = 0.74 * 0.0032 * 0.7785$$

$$E = 0.0018435 \text{ lb tsp/ton}$$

The emission factor is used along with production data to determine hourly, daily or annual emissions. This plant produces 480 tons per hour on a 10 hour day operating 200 days per year.

Hourly:

$$480 \text{ ton/hr} * 0.0018435 \text{ lb tsp/ ton} = 0.8848 \text{ lb/hr}$$

Daily:

$$0.8848 \text{ lb/hr} * 10 \text{ hr/day} = 8.9 \text{ lb/day}$$

Annually:

$$8.9 \text{ lb/day} * 200 \text{ day/yr} * .0005 \text{ ton/lb} = 0.89 \text{ ton/yr}$$

Potential to emit:

Hourly:

$$480 \text{ ton/yr} * 0.0018435 \text{ lb tsp/ton throughput} = 0.8848 \text{ lb/hr}$$

Annually:

$$8760 \text{ hr/yr} * 0.8848 \text{ lb/hr} * 0.0005 \text{ ton/lb} = 3.875 \text{ ton/year}$$

28 NEW SC

PTI Num

FACILITY

Emissions Unit ID: F003

FACILITY DESCRIPTION Roadways, parking areas, material handling and storage piles.

CITY/TWP Columbus

**F002: Load-in and load-out of storage piles and wind erosion from storage piles:**

AP-42, section 13.2.4 "Aggregate Handling and Storage Piles" (1/95 ed.)

EPA's Control of Open Fugitive Dust Sources, September 1988

Load-in and load-out

$$E = k(0.0032) * [(U/5)^{1.3} / (M/2)^{1.4}]$$

where:

E= emission factor (pound/ton)

k= particle size multiplier (dimensionless)

U= mean wind speed (mph), and

M= material moisture content(%)

E=?

k= 0.74 (from application, 2/7/2000)

U= 8.7mph (from application, 2/7/2000)

M= 4 (from application, 2/7/2000)

so:

$$E = 0.74 * (0.0032) * [(8.7/5)^{1.3} / (4/2)^{1.4}]$$

$$E = 0.74 * 0.0032 * (2.05454 / 2.63902)$$

$$E = 0.74 * 0.0032 * 0.7785$$

$$E = 0.0018435 \text{ lb tsp/ton}$$

The emission factor is used along with production data to determine hourly, daily or annual emissions. This plant produces 480 tons per hour on a 10 hour day operating 200 days per year.

Hourly:

$$480 \text{ ton/hr} * 0.0018435 \text{ lb tsp/ ton} = 0.8848 \text{ lb/hr}$$

Daily:

$$0.8848 \text{ lb/hr} * 10 \text{ hr/day} = 8.9 \text{ lb/day}$$

FACILITY DESCRIPTION

Roadways, parking areas, material handling  
and storage piles.

CITY/TWP

Columbus

Annually:

$$8.9 \text{ lb/day} * 200 \text{ day/yr} * .0005 \text{ ton/lb} = 0.89 \text{ ton/yr}$$

Potential to emit:

Hourly:

$$480 \text{ ton/yr} * 0.0018435 \text{ lb tsp/ton throughput} = 0.8848 \text{ lb/hr}$$

Annually:

$$8760 \text{ hr/yr} * 0.8848 \text{ lb/hr} * 0.0005 \text{ ton/lb} = 3.875 \text{ ton/year}$$

Wind erosion from Storage Piles

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

E= total suspended particulate emission factor (lb/day/acre)

s= silt content of the stored material, weight percent (see Table 4-1 of Control of Open Fugitive Dust Source)p= number of days with >0.01 inches of precipitation per year (see Figure 3-1 of Control of Open Fugitive Dust Sources), and

f= percentage of time wind speed exceeds 12 mph

E=?

s= 0.0124 (from application, 2/07/2000)

p= 90 (from application, 2/07/2000)

f= 20 (from application, 2/07/2000)

$$E = 1.7 (0.0124/1.5) * [(365-90)/235] * 20/15$$

$$E = 0.014 * 1.1702 * 1.333$$

$$E = 0.0218 \text{ lbs tsp/day/acre}$$

The surface area is 1.69 acres, so...

$$1.69 * 0.0218 = 0.037 \text{ lb/day.}$$

$$\text{Annual Emissions: } 0.037 \text{ lbs/day} * 365 \text{ day/yr} * 0.0005 \text{ ton/lb} = 0.0067 \text{ tons tsp/year}$$

**NEW SOURCE REVIEW FORM B**

PTI Number: 01-08139

Facility ID: 0125041880

FACILITY NAME Shelly Materials Plant 92

FACILITY DESCRIPTION Roadways, parking areas, material handling CITY/TWP Columbus

Emissions Unit ID: **F003****Maximum annual emissions from F002= Load-in + Load-out + Wind Erosion****Max. annual particulate emissions= 3.875 ton/year + 0.0067 ton/year= 3.88 ton/yr****F003: Unpaved Roadways and Parking Areas**

AP-42, section 13.2.2 "Unpaved Roads" (1/95 ed.)

$$E = \{ [k * (s/12)^a * (W/3)^b] / (M_{dry}/0.2)^c \} * \{ (365-p)/365 \} * \{ S/15 \}$$

E= Annual size specific emission factor extrapolated for natural mitigation, lb/VMT

s= Surface material silt content (%)

W= Mean vehicle weight in tons

M<sub>dry</sub>= surface material moisture content under dry, uncontrolled conditions, %

k,a,b &amp; c [constants from Table 13.2.2-2]

p= number of days with at least 0.01 inch precipitation/year

S= speed (mph) for mean vehicle speed of less than 15mph.

E= ?

s= 7.1% (from application, 2/7/00)

W= 25 (from application, 2/7/00)

M<sub>dry</sub>= 0.2 (from application, 2/7/00)

k= 2.6

a= 0.8

b= 0.4

c= 0.3

p= 90

S= 15

$$E = 2.6 \{ [(7.1/12)^{0.8} * (25/3)^{0.4}] / (0.2/0.2)^{0.3} \} * \{ (365-90)/365 \} * \{ 15/15 \}$$

$$E = 2.6 * \{ (0.657 * 2.33) / 1 \} * 0.95 * 1$$

$$E = 2.6 * 0.657 * 2.33 * 0.95$$

$$E = 3.78 \text{ lbs/ VMT}$$

$$\text{At } 13889 \text{ VMT/year} * 3.78 \text{ lbs/ VMT} * .0005 \text{ tons/lb} = 26.25 \text{ tons/year}$$

**Please complete for these type permits (For PSD/NSR Permit, place mouse over this text):**

31 NEW SC

PTI Num

FACILITY

Emissions Unit ID: **F003**

FACILITY DESCRIPTION

Roadways, parking areas, material handling  
and storage piles.

CITY/TWP

Columbus

Synthetic Minor Determination and/or  Netting Determination  
Permit To Install ENTER PTI NUMBER HERE

A. Source Description

B. Facility Emissions and Attainment Status

C. Source Emissions

D. Conclusion

**PLEASE PROVIDE ADDITIONAL NOTES OR COMMENTS AS NECESSARY:**

NONE

Please complete:

**SUMMARY (for informational purposes only)**

**TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

Pollutant

Tons Per Year

PM

34.1