

**Synthetic Minor Determination and/or**  **Netting Determination**

Permit To Install **14-04951**

Shelly Materials - Plant #45

A. Source Description

Shelly Materials #45 has submitted an application to modify PTI 14-1784 to allow for an increase in the annual production rate for their 420 ton per hour asphalt plant. This equipment is used in the production of asphaltic concrete.

B. Facility Emissions and Attainment Status

This facility is located in Eastern Hamilton County, Ohio and is presently a minor facility. Hamilton County is classified as attainment for all pollutants.

C. Source Emissions

Potential emissions of CO and PM from this emissions unit are above the threshold to be considered a major facility for Title V purposes. Based on maximum capacity and 8760 hrs/yr of operation, the potential emissions would be 58876.20 TPY PM emissions from stack and 625.46 TPY CO. Therefore Shelly Materials #45 will have a production limit of 350,000 tons per year and is required to use a baghouse for control of particulate matter. Parametric monitoring of the baghouse will be required in order to ensure that the baghouse is operating within the allowable pressure drop range. Compliance with the annual production limit will be based upon a rolling, 12-month summation. This facility will maintain monthly records and submit excursion reports that identify all exceedances of the rolling, 12-month production rate limitation.

The asphalt production limitations outlined in this PTI will limit stack PM emissions to 7.7 TPY and the CO emissions to 59.5 TPY as a rolling, 12-month summation. The facility will maintain monthly records submit quarterly reports as described in the PTI to ensure compliance with the production and emission limits.

D. Conclusion

With this permit, the federally enforceable terms and conditions will limit the annual asphalt production and require the use of control equipment so that the facility has a potential to emit less than 100 tons per year of CO and PM. Shelly Materials #45 will not be considered a major facility for the purpose of Title V permitting. In addition the particulate matter, PM10 and CO emissions will be less than 100 tons per year thus PSD will not apply.



State of Ohio Environmental Protection Agency

Street Address:

Mailing Address:

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

Lazarus Gov.  
Center

**RE: DRAFT PERMIT TO INSTALL  
HAMILTON COUNTY  
Application No: 14-04951**

**CERTIFIED MAIL**

**DATE: 9/28/2000**

Shelly Materials - Plant #45  
Larry Shively  
P.O. Box 266 8775 Blackbird Lane  
Thornville, OH 43076

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$1400** will be due. Please do not submit any payment now.

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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

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

CC: USEPA  
OH-KY-IN Reg Coun of Govt

HCDES

KY

IN



**Permit To Install  
Terms and Conditions**

**Issue Date: To be entered upon final issuance  
Effective Date: To be entered upon final issuance**

**DRAFT PERMIT TO INSTALL 14-04951**

Application Number: 14-04951  
APS Premise Number: 1431443377  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: Shelly Materials - Plant #45  
Person to Contact: Larry Shively  
Address: P.O. Box 266 8775 Blackbird Lane  
Thornville, OH 43076

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**387 Columbia Avenue  
Cincinnati, Ohio**

Description of proposed emissions unit(s):  
**Increase production rate from 200,000 tons per year to 350,000 tons per year for 480 tons/hr asphaltic concrete plant.**

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

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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

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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.

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**14. Construction Compliance Certification**

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

**15. Fees**

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

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

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

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

<b><u>Pollutant</u></b>	<b><u>Tons Per Year</u></b>
PM	32.54
PM <sub>10</sub>	20.08
OC	2.98
SO <sub>2</sub>	0.88
NO <sub>x</sub>	4.4
CO	59.5

**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 - Roadways and Parking Areas - Modification	OAC rule 3745-31-05(A)(3)	0.02 TPY PM and 0.008 TPY PM <sub>10</sub> from paved roadways and parking areas
		13.43 TPY PM and 4.83 TPY PM <sub>10</sub> from unpaved roadways and parking areas
		See terms A.2.2.a through A.2.2.l
	OAC rule 3745-17-07(B)(4) and (5)	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 3745-17-08(B)	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 paved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rule 3745-31-05(A)(3) are listed below:

paved roadways:

all

paved parking areas:

all

- 2.b** The unpaved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rule 3745-31-05(A)(3) are listed below:

unpaved roadways:

all

unpaved parking areas:

all.

- 2.c** There shall be no visible particulate emissions from any paved roadway or parking area except for a period of time not to exceed one minute during any sixty-minute observation period.

- 2.d** There shall be no visible particulate emissions from any unpaved roadway or parking area except for a period of time not to exceed three minutes during any sixty-minute observation period.

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

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

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Emissions Unit ID: **F001**

permittee from employing other control measures to ensure compliance.

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Emissions Unit ID: **F001**

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- 2.g** Any unpaved roadways 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 water. 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 a visible emission limitation of no visible particulate emissions except for one minute during any 60-minute period.
- 2.h** 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 or paved 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.i** 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.j** 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.k** The permittee shall post and enforce on the property, a maximum speed limit of 10 miles per hour.
- 2.l** Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05(A)(3).

**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

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roadways and parking areas in accordance with the following frequencies:

<u>paved roadways and parking areas</u>	<u>minimum inspection frequency</u>
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All	Daily
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<u>unpaved roadways and parking areas</u>	<u>minimum inspection frequency</u>
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All	Daily
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2. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
3. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
4. The permittee shall maintain records of the following information:
  - a. The date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
  - b. The date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
  - c. The dates the control measures were implemented; and
  - d. On a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in 4.d. shall be kept separately for (i) the paved roadways and parking areas and (ii) the unpaved roadways and parking areas, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

**D. Reporting Requirements**

1. The permittee shall submit deviation reports that identify any of the following occurrences:
  - a. Each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
  - b. Each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

**E. Testing Requirements**

1. Compliance with the visible emission limitation for the paved and unpaved roadways and parking areas 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)(d) of OAC rule 3745-17-03.
2. Emissions calculations for paved and unpaved roadways and parking areas were determined using AP-42 13.2.1 dated 10/97 for paved roads and 13.2.2 for unpaved roads dated 9/98.

**F. Miscellaneous Requirements**

1. The terms and conditions listed in this permit to install shall supercede all the air pollution control requirements for this emission unit contained in permit to install 14-1784 as issued on December 20, 1989.

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PTI /

Emissions Unit ID: F002

Issued: To be entered upon final issuance

**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 - Storage Piles - Modification	OAC rule 3745-31-05(A)(3)	6.14 TPY PM, 2.81 TPY PM <sub>10</sub>
		See Term A.2.2.a
		See Terms A.2.2.b and B.1
	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).
	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).

**2. Additional Terms and Conditions**

- 2.a There shall be no visible particulate emissions of fugitive dust from the material storage piles except for a period of time not to exceed one minute during any sixty-minute observation period.
- 2.b All sand and aggregate storage piles shall contain sufficient moisture so as to minimize or

eliminate visible emissions of fugitive dust caused by wind erosion.

- 2.c Compliance with OAC rule 3745-31-05 (A)(3) shall be demonstrated by the visible emission limitations.

**B. Operational Restrictions**

1. The permittee shall limit the drop height of the front-end loaders to fifteen (15) feet or less during the loading onto and the loadout from all sand and aggregate storage piles.

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

None

**D. Reporting Requirements**

None

**E. Testing Requirements**

1. Compliance with the fugitive visible particulate emission limitations shall be demonstrated by the methods outlined in 40 CFR Part 60 Appendix A, Method 22.
2. Compliance with the particulate and PM-10 emissions limitations in term A.1 shall be determined by emissions factors from AP-42 13.2.4 (1/95) for load-in and load-out operations and emission factor from Ohio EPA memo dated July 7, 1999 "Guidance regarding aggregate processing plants" for wind erosion and maximum annual rates.

**F. Miscellaneous Requirements**

1. The terms and conditions listed in this permit to install shall supercede all the air pollution control requirements for this emission unit contained in permit to install 14-1784 as issued on December 20, 1989.

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Emissions Unit ID: **P901**

Issued: To be entered upon final issuance

**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>	OAC rule 3745-31-05 (D) Synthetic Minor to avoid PSD and Title V
P901 - 420 Tons/Hr Asphaltic Concrete Plant - Modification	OAC rule 3745-31-05 (A)(3)	40 CFR Part 60, Subpart I
		OAC rule 3745-17-07 (A)
		OAC rule 3745-17-07 (B)

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OAC rule 3745-17-08(B)

Applicable Emissions  
Limitations/Control Measures

12.6 lbs. PM/hr. from fugitive emissions

11.34 lbs. PM10/hr. from fugitive emissions

18.48 lbs. PM-PM10/hr from stack emissions

142.8 lbs. CO/hr  
10.5 lbs. NOx/hr, 4.4 TPY\* NOx  
2.1 lbs. SO2/hr, 0.88 TPY\* SO2  
7.14 lbs. OC/hr, 2.98 TPY\* OC

See term A.2.b.

See term B.2.

The requirements of this rule also include compliance with the requirements of 40 CFR Part 60 Subpart I, OAC rule 3745-17-07 (B) , OAC rule 3745-17-08(B) and OAC rule 3745-31-05(D).

59.5 TPY\* CO

7.7 TPY\* PM-PM10 from stack emissions

5.25 TPY\* PM from fugitive emissions

4.73 TPY\* PM10 from fugitive

emissions

0.04 grain PM per dry standard cubic foot of exhaust gases.

The opacity emission limitation specified by this rule is less stringent than the opacity emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

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

Use of adequate enclosures and sufficient draft to minimize or eliminate visible emissions of fugitive dust from the hot aggregate elevator, vibrating screens, and weigh hopper.

The drop height of the front end loader bucket shall be minimized to the extent possible in order to minimize or eliminate visible emissions of fugitive dust from the elevator loading area.

The aggregate loaded into the storage bins shall have a moisture content sufficient to eliminate the visible emissions of fugitive dust from the

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elevator and the transfer point to the dryer.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

\* The TPY emission limitations are based on a rolling, 12-month summation.

**2. Additional Terms and Conditions**

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emission limitations, production limitations, use of a baghouse and compliance with the NSPS rule.
- 2.b** Visible particulate emissions from any stack associated with emissions unit P901 shall be less than or equal to 10% opacity, as a six-minute average, except as provided by rule.
- 2.c** The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
- 2.d** The hourly emission limitations outlined in term A.1. are based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with these limits.

**B. Operational Restrictions**

- 1. The pressure drop across the baghouse shall be maintained within a range of 4 inches of water to 8 inches of water while the emissions unit is in operation.
- 2. The maximum annual asphalt production rate for this emissions unit shall not exceed 350,000 tons per year as a rolling, 12-month summation of the production rates.

The permittee shall comply with the rolling 12-month production limitation immediately upon startup under this permit based on past records of monthly production.

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**Issue**

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Emissions Unit ID: **P901**

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

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's

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recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.

2. The permittee shall maintain monthly records of the following information:
  - a. The production rate for each month.
  - b. The rolling, 12-month summation of the production rates.

**D. Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in term B.1.
2. The permittee shall submit annual reports which specify the total CO and PM emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.
3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month asphalt production rate limitation.
4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.
5. Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:
  - a. Construction date (no later than 30 days after such date);
  - b. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
  - c. Actual start-up date (within 15 days after such date); and
  - d. Date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency  
DAPC - Permit Management Unit

Shell

PTI

Emissions Unit ID: **P901**

**Issued: To be entered upon final issuance**

P. O. Box 163669  
Columbus, Ohio 43216-3669

and

Hamilton County Department of Environmental Services  
250 William Howard Taft Road  
Cincinnati, Ohio 45219

**E. Testing Requirements**

1. Compliance with the visible particulate emissions limitations in term A.1 and A.2 shall be demonstrated by using Method 9, 40 CFR Part 60 Subpart A.
2. Compliance with the CO, NO<sub>x</sub>, SO<sub>2</sub> and OC emissions limitations will be demonstrated by multiplying the production rate recorded in Term C.2 with the emission factors from AP-42, Table 11.1-2, 11.1-5, 11.1-7 and Table 11.1-8, 1/95):

CO emissions = 0.34 lb/ton produced  
NO<sub>x</sub> emissions = 0.025 lb/ton produced  
SO<sub>2</sub> emissions = 0.005 lb/ton produced  
OC emissions = 0.017 lb/ton produced

3. Compliance with the annual asphalt production limit in term B.2 shall be demonstrated by the record keeping in term C.2.
4. Compliance with the baghouse pressure drop limitation in term B.1 shall be demonstrated by the recordkeeping in term C.1.
5. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 60 days after achieving the maximum production rate but not later than 180 days after initial startup of the emissions unit.
  - b. The emission testing shall be conducted to demonstrate compliance with the particulate and organic compound emission limits.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulate, Method 5 of 40 CFR Part 60, Appendix

Emissions Unit ID: **P901**

A, for organic compounds, Method 25 of 40 CFR Part 60, Appendix A- if applicable. Alternative U.S. EPA approved test methods may be used with prior approval from the Hamilton County Department of Environmental Services.

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Hamilton County Department of Environmental Services refusal to accept the results of the emission test(s).

Personnel from the Hamilton County Department of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Hamilton County Department of Environmental Services.

#### **F. Miscellaneous Requirements**

1. The terms and conditions listed in this permit to install shall supercede all the air pollution control requirements for this emission unit contained in permit to install 14-1784 as issued on December 20, 1989.
2. The following terms and conditions of this permit are federally enforceable: A., B.1, B.2, C.1, C.2., D.1 - D.5 and E.1 - E.5.
3. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The

**Shell**

**PTI /**

Emissions Unit ID: **P901**

**Issued: To be entered upon final issuance**

permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

**NEW SOURCE REVIEW FORM B**

PTI Number: 14-04951 Facility ID: 1431443377

FACILITY NAME Shelly Materials - Plant #45

FACILITY DESCRIPTION Increase production rate from 200,000 tons per year to 350,000 tons per year for 420 tons/hr asphaltic concrete plant. CITY/TWP Cincinnati

SIC CODE 2951 SCC CODE 3-05-011-10 EMISSIONS UNIT ID F001

EMISSIONS UNIT DESCRIPTION Roadways and Parking Areas

DATE INSTALLED 1989

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		4.51		13.43
PM <sub>10</sub>	Attainment		1.62		4.83
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?**

BAT is satisfied through the use of watering, visible emission limitations and production limits.

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: 14-04951 Facility ID: 1431443377

FACILITY NAME Shelly Materials - Plant #45

FACILITY DESCRIPTION Increase production rate from 200.000 tons CITY/TWP Cincinnati

Emissions Unit ID: P901

SIC CODE 2951 SCC CODE 3-05-011-10 EMISSIONS UNIT ID F002

EMISSIONS UNIT DESCRIPTION Storage Piles

DATE INSTALLED 1989

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		4.42		6.14
PM <sub>10</sub>	Attainment		2.21		2.81
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?**

BAT is satisfied by compliance with particulate emission and visible emission limitations.

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:

**2 NEW SOURCE REVIEW FORM B**

PTI Number: 14-04951

Facility ID: 1431443377

FACILITY NAME Shelly Materials - Plant #45

FACILITY DESCRIPTION Increase production rate from 200.000 tons CITY/TWP Cincinnati

Emissions Unit ID: **P901**

SIC CODE 2951

SCC CODE

3-05-011-10

EMISSIONS UNIT ID

P901

EMISSIONS UNIT DESCRIPTION 420 Tons/Hr Asphaltic Concrete Plant

DATE INSTALLED 1989

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	28.12 lbs/hr	8.88	31.08 lbs/hr	12.95
PM <sub>10</sub>	Attainment	26.98 lbs/hr	8.52	29.82 lbs/hr	12.43
Sulfur Dioxide	Attainment	1.90 lbs/hr	0.60	2.1 lbs/hr	0.88
Organic Compounds	Attainment	6.46 lbs/hr	2.04	7.14 lbs/hr	2.98
Nitrogen Oxides	Attainment	9.50 lbs/hr	3.00	10.5 lbs/hr	4.4
Carbon Monoxide	Attainment	129.20 lbs/hr	40.83	142.8 lbs/hr	59.5
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? 40 CFR Part 60

NESHAP?

PSD?

OFFSET POLICY?

Subpart I

**WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?**

BAT is satisfied through the use of a baghouse, compliance with 40 CFR Part 60 Subpart I, visible emission limitations and production limits.

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:

28 **NEW SC**

PTI Num

FACILITY

Emissions Unit ID: **P901** \_\_\_\_\_

FACILITY DESCRIPTION    Increase production rate from 200,000 tons    CITY/TWP    Cincinnati  
per year to 350,000 tons per year for 420  
tons/hr asphaltic concrete plant.

**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 type="checkbox"/>	0000000c.wpd	<input checked="" 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 #45  
387 Columbia Avenue  
Cincinnati, OH 45215

PN: 1431443377

**PERMIT REVIEW NARRATIVE**

PTI 14-04951

Shelly Materials #45 produces asphaltic concrete. This PTI is for an existing concrete batch plant, storage piles and plant roadways & parking areas. The emissions from this plant will be fugitive and stack particulate matter, PM10, SO<sub>2</sub>, OC, NO<sub>x</sub> and CO. The OAC rules governing the emissions units are 3745-31-05 (A)(3)(BAT), 3745-17-07, 3745-17-08, 3745-17-11 and 40 CFR Part 60, Subpart I.

For calculation of actual and potential emissions, see the attached sheets. Hourly emissions are based on a maximum hourly production rate of 420 tons of concrete per hour. Emission factors are from appropriate sections of AP-42 for roadways and parking areas, storage piles and the concrete batch plant.

The PTI will limit emissions to 32.54 TPY PM, 20.08 TPY PM-10, 3.0 TPY OC, 0.9 TPY SO<sub>2</sub>, 4.4 TPY NO<sub>x</sub> and 59.5

**NEW SOURCE REVIEW FORM B**

PTI Number: 14-04951

Facility ID: 1431443377

FACILITY NAME Shelly Materials - Plant #45

FACILITY DESCRIPTION Increase production rate from 200.000 tons CITY/TWP Cincinnati

Emissions Unit ID: **P901**

TPY CO.

BAT for F001 is demonstrated by the use of watering, visible emission limitations and production limits. BAT for F002 is demonstrated by compliance with particulate emission and visible emission limitations. BAT for P901 is demonstrated by the use of a baghouse, compliance with 40 CFR Part 60 Subpart I, visible emission limitations and production limits.

The emissions unit will be in compliance with the applicable rules and a draft Permit to Install should be issued.

The permit fee is \$1000.00 - P901 Concrete Batch Plant(based on PWR of 420 tons per hour).  
 \$200.00 - F001 Plant Roadways and Parking Areas  
 \$200.00 - F002 Storage piles

**Total:** \$1400.00

Prepared by: Chad Powell  
 Date prepared: June 28, 2000

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

**Synthetic Minor Determination and/or**  **Netting Determination**  
 Permit To Install **14-04951**

**A. Source Description**

Shelly Materials #45 has submitted an application to modify PTI 14-1784 to allow for an increase in the annual production rate for their 420 ton per hour asphalt plant. This equipment is used in the production of asphaltic concrete.

**B. Facility Emissions and Attainment Status**

This facility is located in Eastern Hamilton County, Ohio and is presently a minor facility. Hamilton County is classified as attainment for all pollutants.

**C. Source Emissions**

Potential emissions of CO and PM from this emissions unit are above the threshold to be considered a major facility for Title V purposes. Based on maximum capacity and 8760 hrs/yr of operation, the potential emissions would be 58876.20 TPY PM emissions from stack and 625.46 TPY CO. Therefore Shelly Materials #45 will have a production limit of 350,000 tons per year and is required to use a baghouse for control of particulate matter. Parametric monitoring of the baghouse will be required in order to ensure that the baghouse is operating within the allowable pressure drop range. Compliance with the annual production limit will be based upon a rolling, 12-month summation. This facility will maintain monthly records and submit excursion reports that identify all exceedances of the rolling, 12-month production rate limitation.

30 **NEW SOURCE REVIEW FORM B**

PTI Number: 14-04951

Facility ID: 1431443377

FACILITY NAME Shelly Materials - Plant #45

FACILITY DESCRIPTION Increase production rate from 200.000 tons CITY/TWP Cincinnati

Emissions Unit ID: **P901**

The asphalt production limitations outlined in this PTI will limit stack PM emissions to 7.7 TPY and the CO emissions to 59.5 TPY as a rolling, 12-month summation. The facility will maintain monthly records submit quarterly reports as described in the PTI to ensure compliance with the production and emission limits.

D. Conclusion

With this permit, the federally enforceable terms and conditions will limit the annual asphalt production and require the use of control equipment so that the facility has a potential to emit less than 100 tons per year of CO and PM. Shelly Materials #45 will not be considered a major facility for the purpose of Title V permitting. In addition the particulate matter, PM10 and CO emissions will be less than 100 tons per year thus PSD will not apply.

PLEASE PROVIDE ADDITIONAL NOTES OR COMMENTS AS NECESSARY:

NONE

Please complete:

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PM	32.54
PM <sub>10</sub>	20.08
OC	2.98
SO <sub>2</sub>	0.88
NO <sub>x</sub>	4.4
CO	59.5