

**Synthetic Minor Determination and/or**  **Netting Determination**  
 Permit To Install **01-08086**  
**Shelly Materials**

**A. Source Description**

Shelly Materials Plant number 24 is a portable asphalt plant with the following emissions units: 550 ton per hour double barrel hot mix natural gas fired asphalt plant with a baghouse and two 25,000 gallon above ground storage tanks containing asphalt cement. The facility will have the ability to use reclaimed asphalt pavement (RAP).

Based on the hourly maximum capacity of the asphalt plant and assuming it operates 8760 hours per year, the facility would exceed the Title V and PSD thresholds.

**B. Facility Emissions and Attainment Status**

The facility has a potential to emit as follows:

	Emissions	Pre-Synthetic Minor (tons)	Post Synthetic Minor (tons)
P001	PM	45,773 .0	8.9
	CO	361.0	37.5
	NOx	72.3	7.5
	SO2	7.2	0.7
	VOC	72.3	7.5
	Benzene	14.0	1.4
T008	OC	0.02	0.02
T009	OC	0.02	0.02

**C. Source Emissions**

The pre-synthetic minor emissions assume that the facility operates at it's maximum hourly capacity every hour of the year. The post synthetic minor emissions assume that a baghouse is used and that the annual throughput is restricted to 500,000 tons of asphalt.

The asphalt plant will have a cumulative monthly limitation during the initial 12 months of operation. Following the initial 12 months, the throughput will be restricted to 500,000 tons per rolling 12-month period.

**D. Conclusion**

This synthetic minor will effectively restrict the PM, CO and HAP emissions below Title V and PSD thresholds. The operational restrictions, record keeping, reporting and testing requirements shall ensure that compliance with this permit is achieved and maintained.



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center  
122 S. Front Street  
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

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

**RE: DRAFT PERMIT TO INSTALL  
UNION COUNTY  
Application No: 01-08086**

**DATE: 8/31/2000**

Shelly Materials  
Larry Shively  
Post Office Box 266 8775 Blackbird Ln  
Thornville, OH 43076

**CERTIFIED MAIL**

	TOXIC REVIEW
	PSD
Y	SYNTHETIC MINOR
	CEMS
	MACT
40 CFR Part 60 Subpart I, 40 CFR Part 60 Subpart K	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
Y	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

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 **\$2800** 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

CDO



**Permit To Install**

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

**Terms and Conditions**

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

**DRAFT PERMIT TO INSTALL 01-08086**

Application Number: 01-08086

APS Premise Number: 0180000002

Permit Fee: **To be entered upon final issuance**

Name of Facility: Shelly Materials

Person to Contact: Larry Shively

Address: Post Office Box 266 8775 Blackbird Ln  
Thornville, OH 43076

Location of proposed air contaminant source(s) [emissions unit(s)]:

**8328 Watkins Rd  
Ostrander, Ohio**

Description of proposed emissions unit(s):

**Asphalt plant with baghouse.**

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

facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities prove to be inadequate or cannot meet applicable standards.

**10. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

**11. Applicability**

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit to Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

**12. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

**13. Source Operation and Operating Permit Requirements After Completion of Construction**

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the emissions unit(s) covered by this permit.

**14. Construction Compliance Certification**

**Shelly Materials****PTI Application: 01-08086****Issued: To be entered upon final issuance****Facility ID: 018000002**

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	8.9
CO	37.5
NOx	7.5
SO2	0.7
VOC	7.5
OC	0.04
Benzene	1.4

**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>
P001 - 550 ton per hour double barrel, parallel flow, hot mix 140 mmBTU/hr, natural gas fired asphalt plant with a baghouse, aggregate feed bins and storage silo	OAC rule 3745-31-05 (A)(3)	Nitrogen oxide emissions shall not exceed 16.50 pounds per hour and 7.5 tons per year.
		Sulfur dioxide emissions shall not exceed 1.65 pounds per hour and 0.7 ton per year.
		Volatile organic compounds shall not exceed 16.50 pounds per hour and 7.5 tons per year.
		Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3 minute average.
		See II.A.2a below.
	OAC rule 3745-35-07 (B) OAC rule 3745-31-05 (D)	Particulate emissions shall not exceed 19.66 pounds per hour and 8.9 tons per rolling 12-month summation.
		Carbon monoxide emissions shall not exceed 82.50 pounds per hour and 37.5 tons per rolling 12-month summation.
	OAC rule 3745-35-07 (B)	Benzene emissions shall not exceed 3.19 pounds per hour and 1.4 tons per rolling 12 month summation.
	OAC rule 3745-17-11	The emission limitation specified in

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Emissions Unit ID: P001

OAC rule 3745-18-06 (E)	this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05 (A)(3).
40 CFR Part 60 Subpart I	The emission limitation specified in this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05 (A)(3).
	Particulate emissions shall not exceed 0.04 gr/dscf.
	Visible particulate emissions shall not exceed 20% opacity.

**2. Additional Terms and Conditions**

**2.a** The aggregate loaded into the feed bins shall have a moisture content sufficient to eliminate the visible emissions of fugitive dust from the conveyer and transfer points to the dryer.

**B. Operational Restrictions**

1. The maximum production rate for this emissions unit shall not exceed 500,000 tons of asphalt, based upon a rolling, 12-month summation of the monthly production rates.

To ensure enforceability during the first 12 calendar months of operation, the permittee shall not exceed the production levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Production</u>
1	40,000
1-2	100,000
1-3	160,000
1-4	225,000
1-5	285,000
1-6	345,000
1-7	395,000
1-8	445,000
1-9	447,000
1-10	452,000
1-11	467,000
1-12	500,000

After the first 12 calendar months of operation, compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

2. The pressure drop across the baghouse shall be maintained, while the emissions unit is in operation, within the range specified by the manufacturer's written recommendation until an emission test takes place which specifies a pressure drop range that demonstrates the emissions unit is in compliance.

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

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions escaping from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. whether the emissions are representative of normal operations;
  - b. if the emissions are not representative of normal operations, the cause of the abnormal emissions; and,
  - c. any corrective actions taken to eliminate the abnormal emissions.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. whether the emissions are representative of normal operations;
  - b. if the emissions are not representative of normal operations, the cause of the abnormal emissions; and,
  - c. any corrective actions taken to eliminate the abnormal emissions.
3. The permittee shall maintain monthly records of the following information:
  - a. The production rate for each month (tons).
  - b. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the production rates.

Also, during the first 12 calendar months of operation, the permittee shall record the cumulative production rate for each calendar month.

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

**Facility ID: 018000002**

**Emissions Unit ID: P001**

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

5. The permit to install for this emissions unit (P001) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Benzene

TLV (mg/m<sup>3</sup>): 1.6

Maximum Hourly Emission Rate (lbs/hr): 3.19

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 0.043

MAGLC (ug/m<sup>3</sup>): 38

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-

01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the “Air Toxic Policy:”

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the “Air Toxic Policy”; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the “Air Toxic Policy” for the change.

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

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed escaping from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. If no visible particulate emissions were observed, the permittee shall submit a semiannual report, which states that no visible particulate emissions were observed. These reports shall be submitted to the Director (Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. If no visible particulate emissions were observed, the permittee shall submit a semiannual report, which states that no visible particulate emissions were observed. These reports shall be submitted to the Director (Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative production levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1).
4. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

#### **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 19.66 pounds per hour and 8.9 tons per rolling 12-month summation.

- Applicable Compliance Method -**

- Compliance with the short and long term emission limitations shall be demonstrated by summing the pre-dryer and dryer emissions.

The short term dryer emissions shall be determined by, emission testing for this emissions unit in accordance with the following requirements:

- i. The emission testing shall be conducted within 60 days issuance of this permit.
      - ii. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitation.
      - iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 5, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
      - iv. 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 Ohio EPA, Central District Office.

The short term pre-dryer emissions shall be determined by multiplying the emission factor of 0.00075 pound per ton (AP-42, 5/11/94, 11.19.2) by the throughput during the most recent stack test.

The long term dryer emissions shall be determined by multiplying the emission rate demonstrated during the most recent stack test (pounds per ton) by the previous 12 month's throughput (tons per rolling 12 month period) and dividing by 2000 pounds per ton.

The long term pre-dryer emissions shall be determined by multiplying the emission factor of 0.00075 pound per ton (AP-42, 5/11/94, 11.19.2) by the previous 12 month's throughput (tons per rolling 12 month period) and dividing by 2000 pounds per ton.

- b. **Emission Limitation -**

- Carbon monoxide emissions shall not exceed 82.50 pounds per hour and 37.5 tons per rolling 12-month summation.

- Applicable Compliance Method -**

Compliance with the short term emission limitation shall be demonstrated by, emission testing for this emissions unit in accordance with the following requirements:

- i. The emission testing shall be conducted within 60 days issuance of this permit.
- ii. The emission testing shall be conducted to demonstrate compliance with the carbon monoxide emission limitation.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 10, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- iv. 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 Ohio EPA, Central District Office.

Compliance with the long term emission limitation shall be demonstrated by multiplying the emission rate demonstrated during the most recent stack test (pounds per ton) by the previous 12 month's throughput (tons per rolling 12 month period) and dividing by 2000 pounds per ton.

- c. **Emission Limitation -**  
Nitrogen oxide emissions shall not exceed 16.50 pounds per hour and 7.5 tons per year.

**Applicable Compliance Method -**

Compliance with the short term emission limitation shall be demonstrated by, emission testing for this emissions unit in accordance with the following requirements:

- i. The emission testing shall be conducted within 60 days issuance of this permit.
- ii. The emission testing shall be conducted to demonstrate compliance with the nitrogen oxide emission limitation.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 7E, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- iv. 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 Ohio EPA, Central District Office.

Compliance with the long term emission limitation shall be demonstrated by multiplying the

emission rate demonstrated during the most recent stack test (pounds per ton) by the previous 12 month's throughput (tons per rolling 12 month period) and dividing by 2000 pounds per ton.

d. Emission Limitation -

Sulfur dioxide emissions shall not exceed 1.65 pounds per hour and 0.7 ton per year.

Applicable Compliance Method -

Compliance with the short term emission limitation shall be demonstrated by multiplying the emission factor of 0.003 pound per ton of asphalt (AP-42,8/15/97, 11.1) by the maximum capacity of the emission unit (550 tons per hour).

Compliance with the long term emission limitation shall be demonstrated by multiplying the emission factor of 0.003 pound per ton of asphalt (AP-42,8/15/97, 11.1) by the previous 12 month's throughput (tons per rolling 12 month period) and dividing by 2000 pounds per ton.

e. Emission Limitation -

Volatile organic compounds shall not exceed 16.50 pounds per hour and 7.5 tons per year.

Applicable Compliance Method -

Compliance with the short term emission limitation shall be demonstrated by, emission testing for this emissions unit in accordance with the following requirements:

- i. The emission testing shall be conducted within 60 days issuance of this permit.
- ii. The emission testing shall be conducted to demonstrate compliance with the volatile organic compound emission limitation.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 25 or 25A, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- iv. 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 Ohio EPA, Central District Office.

Compliance with the long term emission limitation shall be demonstrated by multiplying the emission rate demonstrated during the most recent stack test (pounds per ton) by the previous 12 month's throughput (tons per rolling 12 month period) and dividing by 2000 pounds per ton.

- f. Emission Limitation -  
Benzene emissions shall not exceed 3.19 pounds per hour and 1.4 tons per rolling 12-month summation.

Applicable Compliance Method -

Compliance with the short term emission limitation shall be demonstrated by multiplying the emission factor of 0.0058 pound per ton of asphalt (AP-42,8/15/97, 11.1) by the maximum capacity of the emission unit (550 tons per hour).

Compliance with the long term emission limitation shall be demonstrated by multiplying the emission factor of 0.0058 pound per ton of asphalt (AP-42,8/15/97, 11.1) by the previous 12 month's throughput (tons per rolling 12 month period) and dividing by 2000 pounds per ton.

- g. Emission Limitation -  
Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3 minute average.

Applicable Compliance Method -

Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

- h. Emission Limitation -  
Particulate emissions shall not exceed 0.04 gr/dscf.

Applicable Compliance Method -

See E.1.a above.

- i. Emission Limitation -  
Visible particulate emissions shall not exceed 20% opacity.

Applicable Compliance Method -

Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. 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 Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the

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**PTI Application: 01-08086**

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

**Facility ID: 018000002**

**Emissions Unit ID: P001**

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 Ohio EPA, Central District Office 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 Ohio EPA, Central District Office.

**F. Miscellaneous Requirements**

1. This emissions unit has been approved for the use of recycled asphalt products.
2. The following sources are subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

<u>Source Number</u>	<u>Source Description</u>	<u>NSPS Regulation (Subpart)</u>
P001	550 ton per hour double barrel, parallel flow, hot mix 140 mmBTU/hr, natural gas fired asphalt plant with a baghouse, aggregate feed bins and storage silo	Subpart I

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

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 - Air Quality Modeling and Planning  
 P.O. Box 1049  
 Columbus, OH 43216-1049

and Central District Office

**Shelly Materials**

**PTI Application: 01-08086**

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

**Facility ID: 018000002**

**Emissions Unit ID: P001**

Division of Air Pollution Control  
3232 Alum Creek Drive  
Columbus, Ohio 43207

**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>
T008 - 25,000 gallon above ground storage tank containing asphalt cement	OAC rule 3745-31-05 (A)(3)  40 CFR 60 Subpart Kb	Organic compound emissions shall not exceed 0.02 ton per year.  See C.1 and D.1 below.

2. **Additional Terms and Conditions**

- 2.a None

**B. Operational Restrictions**

None

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

1. In accordance with 40 CFR 60.116b (a) and 40 CFR 60.116b (b), the permittee shall keep readily accessible records showing the dimensions of T062 and an analysis showing the capacity for the life of T062.
2. The permittee shall maintain readily accessible records which identify the contents of T062.

**D. Reporting Requirements**

None

**E. Testing Requirements**

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

**Shelly Materials**

**PTI Application: 01-08086**

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

**Facility ID: 018000002**

**Emissions Unit ID: T008**

- a. Emission Limitation:  
Organic compound emissions shall not exceed 0.02 ton per year.

Applicable Compliance Method:

VOC emissions due to standing and withdrawal losses from the storage tanks shall be determined using the most recent version of USEPA's "Tanks" program.

**F. Miscellaneous Requirements**

The following sources are subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

<u>Source Number</u>	<u>Source Description</u>	<u>NSPS Regulation (Subpart)</u>
P001	25,000 gallon above ground storage tank containing asphalt cement	Subpart I

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

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 - Air Quality Modeling and Planning  
P.O. Box 1049  
Columbus, OH 43216-1049

and

Central District Office  
Division of Air Pollution Control  
3232 Alum Creek Drive  
Columbus, Ohio 43207

**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>
T009 - 25,000 gallon above ground storage tank containing asphalt cement.	OAC rule 3745-31-05 (A)(3)  40 CFR 60 Subpart Kb	Organic compound emissions shall not exceed 0.02 ton per year.  See C.1 and D.1 below.

2. **Additional Terms and Conditions**

- 2.a None

**B. Operational Restrictions**

None

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

1. In accordance with 40 CFR 60.116b (a) and 40 CFR 60.116b (b), the permittee shall keep readily accessible records showing the dimensions of T062 and an analysis showing the capacity for the life of T062.
2. The permittee shall maintain readily accessible records which identify the contents of T062.

**D. Reporting Requirements**

None

**E. Testing Requirements**

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

- a. Emission Limitation:

**Shelly Materials**

**PTI Application: 01-08086**

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

**Facility ID: 018000002**

**Emissions Unit ID: T009**

Organic compound emissions shall not exceed 0.02 ton per year.

Applicable Compliance Method:

VOC emissions due to standing and withdrawal losses from the storage tanks shall be determined using the most recent version of USEPA's "Tanks" program.

**F. Miscellaneous Requirements**

The following sources are subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

<u>Source Number</u>	<u>Source Description</u>	<u>NSPS Regulation (Subpart)</u>
P001	25,000 gallon above ground storage tank containing asphalt cement.	Subpart I

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

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 - Air Quality Modeling and Planning  
P.O. Box 1049  
Columbus, OH 43216-1049

and

Central District Office  
Division of Air Pollution Control  
3232 Alum Creek Drive  
Columbus, Ohio 43207

**NEW SOURCE REVIEW FORM B**

PTI Number: 01-08086

Facility ID: 0180000002

FACILITY NAME Shelly Materials

FACILITY DESCRIPTION Asphalt plant with baghouse. CITY/TWP Ostrander

SIC CODE 2951 SCC CODE 30500201 EMISSIONS UNIT ID P001

EMISSIONS UNIT DESCRIPTION 550 ton per hour double barrel hot mix natural gas fired asphalt plant with a baghouse

DATE INSTALLED 4/00

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		19.66 lbs/hr	8.9 tpy	19.66 lbs/hr	8.9 tpy
PM <sub>10</sub>					
Sulfur Dioxide		1.65 lbs/hr	0.7 tpy	1.65 lbs/hr	0.7 tpy
Organic Compounds		16.50 lbs/hr	7.5 tpy	16.50 lbs/hr	7.5 tpy
Nitrogen Oxides		16.50 lbs/hr	7.5 tpy	16.50 lbs/hr	7.5 tpy
Carbon Monoxide		82.50 lbs/hr	37.5 tpy	82.50 lbs/hr	37.5 tpy
Lead					
Other: Air Toxics	Benzene	3.19 lbs/hr	1.4 tpy	3.19 lbs/hr	1.4 tpy

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?

See additional terms and conditions.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

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\*?      X      YES                  NO

IDENTIFY THE AIR CONTAMINANTS: Benzene

**NEW SOURCE REVIEW FORM B**

PTI Number: 01-08086

Facility ID: 0180000002

FACILITY NAME Shelly Materials

FACILITY DESCRIPTION Asphalt plant with baghouse. CITY/TWP Ostrander

SIC CODE 2951 SCC CODE 30500206 EMISSIONS UNIT ID T008

EMISSIONS UNIT DESCRIPTION 25,000 gallon above ground storage tank containing asphalt cement

DATE INSTALLED 4/00

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					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds			0.02		0.02
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? 40 CFR Part 60      NESHAP?      PSD?      OFFSET POLICY?  
Subpart Kb

**WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE 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? \$ \_\_\_\_\_

**TOXIC AIR CONTAMINANTS**

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

AIR TOXICS MODELING PERFORMED\*? \_\_\_\_\_ YES x NO

IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_

**NEW SOURCE REVIEW FORM B**

PTI Number: 01-08086

Facility ID: 0180000002

FACILITY NAME Shelly Materials

FACILITY DESCRIPTION Asphalt plant with baghouse. CITY/TWP Ostrander

SIC CODE 2951 SCC CODE 30500206 EMISSIONS UNIT ID T009

EMISSIONS UNIT DESCRIPTION 25,000 gallon above ground storage tank containing asphalt cement.

DATE INSTALLED 4/00

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					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds			0.02		0.02
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? 40 CFR Part 60      NESHAP?      PSD?      OFFSET POLICY?  
Subpart K

**WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE 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? \$ \_\_\_\_\_

**TOXIC AIR CONTAMINANTS**

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

AIR TOXICS MODELING PERFORMED\*? \_\_\_\_\_ YES x NO

IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_

**NEW SOURCE REVIEW FORM B**

PTI Number: 01-08086

Facility ID: 0180000002

FACILITY NAME Shelly Materials

FACILITY DESCRIPTION Asphalt plant with baghouse.

CITY/TWP Ostrander

**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**

<i>Please fill out the following. If the checkbox does not work, replace it with an 'X'</i>	<u>Electronic</u>	<u>Additional information File Name Convention (your PTI # plus this letter)</u>	<u>Hard Copy</u>	<u>None</u>
Calculations (required)	<input checked="" type="checkbox"/>	0000000c.wpd	<input type="checkbox"/>	
Modeling form/results	<input type="checkbox"/>	0000000s.wpd	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PTI Application (complete or partial)*	<input checked="" type="checkbox"/>	0000000a.wpd	<input type="checkbox"/>	<input type="checkbox"/>
BAT Study	<input type="checkbox"/>	0000000b.wpd	<input type="checkbox"/>	<input type="checkbox"/>
Other/misc.	<input type="checkbox"/>	0000000t.wpd	<input type="checkbox"/>	<input 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

The Shelly Materials Plant # 24 has installed an asphalt plant without the necessary PTI. This permit is for three emission units: a 550 ton per hour double barrel hot mix natural gas fired asphalt plant with a baghouse and two 25,000 gallon above ground storage tanks containing asphalt cement. The facility will have the ability to use reclaimed asphalt pavement (RAP).

The facility's PTE triggers Title V and PSD permitting, however, requested limitations herein make the permit a synthetic minor. The permit has a cumulative rolling 12-month limitation on the amount of asphalt produced and limitations on the first 12 months of operation. Additional synthetic minor information can be found in the Synthetic Minor Determination.

Applicable rules include 31-05, 17-07 (A), 17-07 (B), 17-11, 18-06, NSPS Subpart I, and NSPS Subpart Kb.

Modeling was conducted for criteria pollutants and for substances with a TLV. No exceedances of the MAGLC or maximum incremental impact levels were predicted.

Calculations are as follows:

**P001 -**

Assumptions: Maximum capacity = 550 tons per hour  
 4,818,000 tons per year  
 Maximum capacity after Synthetic Minor = 550 tons per hour

500  
 ,00  
 0  
 ton

**NEW SOURCE REVIEW FORM B**

PTI Number: 01-08086

Facility ID: 0180000002

FACILITY NAME Shelly Materials

FACILITY DESCRIPTION Asphalt plant with baghouse.CITY/TWP Ostranders  
per  
year

PM emission factor (pre-dryer) = 0.00075 lbs/ton of asphalt (AP-42, 5/11/94, 11.19.2)  
 PM emission factor uncontrolled (dryer) = 19 lbs/ton of asphalt (AP-42, 8/15/97, 11.1)  
 PM emission factor controlled (dryer) = 0.035 lbs/ton of asphalt (AP-42, 8/15/97, 11.1)  
 CO emission factor = 0.15 lbs/ton of asphalt (AP-42, 8/15/97, 11.1)  
 NOx emission factor = 0.030 lbs/ton of asphalt (AP-42, 8/15/97, 11.1)  
 SO2 emission factor = 0.003 lbs/ton of asphalt (AP-42, 8/15/97, 11.1)  
 VOC emission factor = 0.030 lbs/ton of asphalt (AP-42, 8/15/97, 11.1)  
 Formaldehyde emission factor = 0.0031 lb/ton of asphalt (AP-42, 8/15/97, 11.1)  
 Benzene emission factor = 0.0058 lb/ton of asphalt (AP-42, 8/15/97, 11.1)

**POTENTIAL EMISSIONS:** (no baghouse or annual throughput restriction)

PM (pre-dryer):

$$550 \text{ tons/hr} \times 0.00075 \text{ lbs/ton} = 0.41 \text{ lbs/hr}$$

$$4,818,000 \text{ tons/yr} \times 0.00075 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 1.7 \text{ tons/yr}$$

PM (dryer):

$$550 \text{ tons/hr} \times 19 \text{ lbs/ton} = 10,450 \text{ lbs/hr}$$

$$4,818,000 \text{ tons/yr} \times 19 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 45,771 \text{ tons/yr}$$

CO:

$$550 \text{ tons/hr} \times 0.15 \text{ lbs/ton} = 82.5 \text{ lbs/hr}$$

$$4,818,000 \text{ tons/yr} \times 0.15 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 361.3 \text{ tons/yr}$$

NOx:

$$550 \text{ tons/hr} \times 0.03 \text{ lbs/ton} = 16.5 \text{ lbs/hr}$$

$$4,818,000 \text{ tons/yr} \times 0.03 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 72.3 \text{ tons/yr}$$

SO2:

$$550 \text{ tons/hr} \times 0.003 \text{ lbs/ton} = 1.65 \text{ lbs/hr}$$

$$4,818,000 \text{ tons/yr} \times 0.003 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 7.2 \text{ tons/yr}$$

VOC:

$$550 \text{ tons/hr} \times 0.03 \text{ lbs/ton} = 16.5 \text{ lbs/hr}$$

$$4,818,000 \text{ tons/yr} \times 0.03 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 72.3 \text{ tons/yr}$$

Formaldehyde: 550 tons/hr x 0.0031 lbs/ton = 1.70 lbs/hr

$$4,818,000 \text{ tons/yr} \times 0.0031 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 7.5 \text{ tons/yr}$$

**NEW SOURCE REVIEW FORM B**

PTI Number: 01-08086

Facility ID: 0180000002

FACILITY NAME Shelly Materials

FACILITY DESCRIPTION Asphalt plant with baghouse.CITY/TWP OstranderBenzene:  $550 \text{ tons/hr} \times 0.0058 \text{ lbs/ton} = 3.19 \text{ lbs/hr}$  $4,818,000 \text{ tons/yr} \times 0.0058 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 14.0 \text{ tons/yr}$ **PERMIT ALLOWABLE EMISSIONS:**

(baghouse and annual throughput restriction)

PM (pre-dryer):

 $550 \text{ tons/hr} \times 0.00075 \text{ lbs/ton} = 0.41 \text{ lbs/hr}$  $500,000 \text{ tons/yr} \times 0.00075 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 0.2 \text{ tons/yr}$ 

PM (dryer):

 $550 \text{ tons/hr} \times 0.035 \text{ lbs/ton} = 19.25 \text{ lbs/hr}$  $500,000 \text{ tons/yr} \times 0.035 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 8.75 \text{ tons/yr}$ CO:  $550 \text{ tons/hr} \times 0.15 \text{ lbs/ton} = 82.5 \text{ lbs/hr}$  $500,000 \text{ tons/yr} \times 0.15 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 37.5 \text{ tons/yr}$ NOx:  $550 \text{ tons/hr} \times 0.03 \text{ lbs/ton} = 16.5 \text{ lbs/hr}$  $500,000 \text{ tons/yr} \times 0.03 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 7.5 \text{ tons/yr}$ SO<sub>2</sub>:  $550 \text{ tons/hr} \times 0.003 \text{ lbs/ton} = 1.65 \text{ lbs/hr}$  $500,000 \text{ tons/yr} \times 0.003 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 0.75 \text{ tons/yr}$ VOC:  $550 \text{ tons/hr} \times 0.03 \text{ lbs/ton} = 16.5 \text{ lbs/hr}$  $500,000 \text{ tons/yr} \times 0.03 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 7.5 \text{ tons/yr}$ Formaldehyde:  $550 \text{ tons/hr} \times 0.0031 \text{ lbs/ton} = 1.70 \text{ lbs/hr}$  $500,000 \text{ tons/yr} \times 0.0031 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 0.8 \text{ tons/yr}$ Benzene:  $550 \text{ tons/hr} \times 0.0058 \text{ lbs/ton} = 3.19 \text{ lbs/hr}$  $500,000 \text{ tons/yr} \times 0.0058 \text{ lbs/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 1.4 \text{ tons/yr}$ **T008 -**

Calculations from TANKS 4.0

0.02 tons OC/yr

**NEW SOURCE REVIEW FORM B**

PTI Number: 01-08086

Facility ID: 0180000002

FACILITY NAME Shelly Materials

FACILITY DESCRIPTION Asphalt plant with baghouse.

CITY/TWP Ostrander

**T009 -**

Calculations from TANKS 4.0

0.02 tons OC/yr

If any questions arise during the review of this permit feel free to call me at (614) 728-3811.

Thank you,

Adam

**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 ENTER PTI NUMBER HERE**

**A. Source Description**

Shelly Materials Plant number 24 is a portable asphalt plant with the following emissions units: 550 ton per hour double barrel hot mix natural gas fired asphalt plant with a baghouse and two 25,000 gallon above ground storage tanks containing asphalt cement. The facility will have the ability to use reclaimed asphalt pavement (RAP).

Based on the hourly maximum capacity of the asphalt plant and assuming it operates 8760 hours per year, the facility would exceed the Title V and PSD thresholds.

**B. Facility Emissions and Attainment Status**

The facility has a potential to emit as follows:

	Emissions	Pre-Synthetic Minor (tons)	Post Synthetic Minor (tons)	
P001	PM		45,773 .0	8.9
	CO		361.0	37.5
	NOx		72.3	7.5
	SO2		7.2	0.7
	VOC		72.3	7.5
	Benzene	14.0		1.4
T008	OC		0.02	0.02
T009	OC		0.02	0.02

**NEW SOURCE REVIEW FORM B**

PTI Number: 01-08086

Facility ID: 0180000002

FACILITY NAME Shelly Materials

FACILITY DESCRIPTION Asphalt plant with baghouse.CITY/TWP Ostrander**C. Source Emissions**

The pre-synthetic minor emissions assume that the facility operates at its maximum hourly capacity every hour of the year. The post synthetic minor emissions assume that a baghouse is used and that the annual throughput is restricted to 500,000 tons of asphalt.

The asphalt plant will have a cumulative monthly limitation during the initial 12 months of operation. Following the initial 12 months, the throughput will be restricted to 500,000 tons per rolling 12-month period.

**D. Conclusion**

This synthetic minor will effectively restrict the PM, CO and HAP emissions below Title V and PSD thresholds. The operational restrictions, record keeping, reporting and testing requirements shall ensure that compliance with this permit is achieved and maintained.

---

**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	8.9
CO	37.5
NOx	7.5
SO2	0.7
VOC	7.5
OC	0.04
Benzene	1.4

**NEW SOURCE REVIEW FORM B**

PTI Number: 01-08086

Facility ID: 0180000002

FACILITY NAME Shelly Materials

FACILITY DESCRIPTION Asphalt plant with baghouse.

CITY/TWP Ostrander