



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
FRANKLIN COUNTY
Application No: 01-08828**

CERTIFIED MAIL

DATE: 5/6/2004

Shelly Materials Plant 91
Larry Shively
Post Office 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 **\$1250** 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,

Michael W. Ahern

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA

CDO

Mid-Ohio Regional Planning Commission



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**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 01-08828

Application Number: 01-08828
APS Premise Number: 0125232454
Permit Fee: **To be entered upon final issuance**
Name of Facility: Shelly Materials Plant 91
Person to Contact: Larry Shively
Address: Post Office Box 266 8775 Blackbird Lane
Thornville, OH 43076

Location of proposed air contaminant source(s) [emissions unit(s)]:
**6055 Westerville Road
Westerville, Ohio**

Description of proposed emissions unit(s):
Hox mix asphalt.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Shelly Materials Plant 91

Facility ID: 0125232454

PTI Application: 01-08828

Issued: To be entered upon final issuance

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

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record keeping 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 record keeping 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

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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

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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 cannot meet the requirements of this permit 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 cannot meet the requirements of this permit 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 Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

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

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V

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permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. 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 ninety (90) days after commencing operation of the source(s) covered by this permit.

14. Construction Compliance Certification

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

15. Fees

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

B. Permit to Install Summary of Allowable Emissions

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

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

Pollutant

Tons Per Year

Shelly Materials Plant 91
PTI A
Issued

Facility ID: 0125232454

Emissions Unit ID: **P001**

NO _x	12.0
CO	93.4
SO ₂	51.3
VOC	26.8
PM(stack)	5.75
PM ₁₀ (stack)	5.75
PM(fugitive)	2.05
PM ₁₀ (fugitive)	1.01

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

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P001 - 400 TPH counterflow drum mix asphalt plant controlled by a baghouse	OAC rule 3745-31-05(A)(3)

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Shelly

PTI A

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Emissions Unit ID: **P001**

OAC rule 3745-17-07(A)(1)

OAC rule 3745-17-11(B)(1)

OAC rule 3745-18-06(E)

40 CFR Part 60, Subpart I

OAC rule 3745-31-05(C)

Shelly

PTI A

Emissions Unit ID: P001

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<u>Applicable Emissions Limitations/Control Measures</u>		
Carbon monoxide (CO) emissions from burning on-spec used oil shall not exceed 180 lbs/hr.	number 2 fuel oil shall not exceed 4.4 lbs/hr. Volatile Organic Compound (VOC) emissions from burning on-spec used oil shall not exceed 37.6 lbs/hr.	No visible emissions of fugitive dust from the enclosures for the hot aggregate elevator, vibrating screens, and weigh hopper. Visible emissions of fugitive dust (from areas other than the enclosures for the hot aggregate elevator, vibrating screens, and weigh hopper) shall be less than or equal to 10% opacity, as a 3-minute average.
CO emissions from burning natural gas shall not exceed 52.0 lbs/hr.	VOC emissions from burning natural gas shall not exceed 12.8 lbs/hr. VOC emission from burning number 2 fuel oil shall not exceed 37.6 lbs/hr.	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 aggregate storage bins.
CO emission from burning number 2 fuel oil shall not exceed 180 lbs/hr.	PM ₁₀ from the stack shall not exceed 0.04 gr/dscf when burning on-spec oil, number 2 fuel oil, or natural gas.	The aggregate loaded into the storage bins shall have a moisture content sufficient to minimize the visible emissions of fugitive dust from conveyors and all transfer points to the dryer.
Nitrogen Oxide (NO _x) emissions from burning on-spec used oil shall not exceed 18.3 lbs/hr.	Emissions of fugitive PM ₁₀ shall not exceed 1.01 pounds per hour when burning on-spec oil, number 2 fuel oil, or natural gas.	The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C) and 40CFR Part 60, Subpart I.
NO _x emissions from burning natural gas shall not exceed 10.4 lbs/hr.	Fugitive particulate emissions shall not exceed 2.05 pounds per hour when burning on-spec oil, number 2 fuel oil, or natural gas.	See A.2.c-e below
NO _x emissions from burning number 2 fuel oil shall not exceed 18.3 lbs/hr.	Arsenic, cadmium, chromium, and lead emissions are limited by the fuel specifications in A.2.b below.	Particulate emissions (PE) from the stack shall not exceed 5.75 tons per rolling 12-month period.
Sulfur Dioxide (SO ₂) emissions from burning on-spec used oil shall not exceed 71.9 lbs/hr.	Visible particulate emissions from the stack shall not exceed 10% opacity, as a 3-minute average.	PM ₁₀ emissions from the stack shall not exceed 5.75 tons per rolling 12-month period.
SO ₂ emissions from burning natural gas shall not exceed 1.36 lbs/hr.	Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see section A.2.a).	Fugitive PE shall not exceed 2.05 tons per rolling 12-month period.
SO ₂ emissions from burning		

Fugitive PM₁₀ emissions shall not exceed 1.01 ton per rolling 12-month period.

CO emissions shall not exceed 93.4 tons per rolling 12-month period.

VOC emissions shall not exceed 26.8 tons per rolling 12-month period.

SO₂ emissions shall not exceed 51.3 tons per rolling 12-month period.

NO_x emissions shall not exceed 12.0 tons per rolling 12-month period.

The emissions limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

PE from the stack shall not exceed 0.04 gr/dscf when burning on-spec used oil, number 2 fuel oil, or natural gas.

2. Additional Terms and Conditions

- 2.a** The permittee shall ensure that the baghouse is operated with sufficient air volume to minimize or eliminate visible fugitive emissions from the rotary drum.
- 2.b** All on-spec used oil burned in this emissions unit shall meet the following specifications:

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Contaminant/Property Allowable Specifications

arsenic	5 ppm, maximum
cadmium	2 ppm, maximum
chromium	10 ppm, maximum
lead	100 ppm, maximum
PCB's	50 ppm, maximum
total halogens	4000 ppm maximum
mercury	1 ppm, maximum
flash point	100°F, minimum
heat content	135,000 Btu/gallon, minimum

- 2.c** On-spec used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under 40 CFR Part 266.40(c) and OAC rule 3745-279. Therefore, the permittee may receive and burn on-spec used oil exceeding 1000 ppm of total halogens (but less than 4000 ppm, maximum) only if the supplier ["marketer" in 40 Part CFR 266.43(a)] has demonstrated to the Ohio EPA's Division of Hazardous Waste Management that the on-spec used oil does not contain any hazardous waste.
- 2.d** All number 2 and on-spec used oil burned in this emission unit shall have a sulfur content equal to or less than 0.5%.
- 2.e** The permittee shall conduct burner performance tuning for purposes of minimizing emissions. Burner performance tuning shall contain at a minimum the evaluation of and adjustment to manufacturer's specifications of the following:
- i. Fuel flow to the burner (for fuel oil and on spec used oil);
 - ii. Differential pressure of the baghouse to ensure proper air flow through the plant;
 - iii. Flue gas analysis (of gases present in the drum and or stack) for CO, O₂, CO₂, and NO_x;
 - iv. Fuel pressure; and,
 - v. For burners that require compressed air for proper operation, correct pressure at the burner.

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B. Operational Restrictions

1. The pressure drop across the fabric filter shall be maintained within the range of 2 to 8 inches of water while the emissions unit is in operation.
2. The permittee may not receive or burn any on-spec used oil which does not meet the specifications listed in A.2.b of this permit without first obtaining a permit to install that authorizes the burning of such off-specification used oil. The burning of off-specification used oil is subject to OAC rule 3745-279-60 through 67.
3. The maximum annual asphalt production rate for this emissions unit shall not exceed 415,000 tons per year, based upon a rolling, 12-month summation of the production rates. The company has existing records for the current operational location such that the applicant does not need to be restricted to first year monthly asphalt production.
4. The permittee shall conduct an initial burner tuning within 30 production days after commencement of the production season. The permittee shall conduct another burner tuning within the time period of 90 to 120 production days after the initial burner tuning. For purposes of this permit, the production season is defined as the time period between the date the first ton of asphalt is produced and the date that the last ton of asphalt is produced during the same calendar year.
5. In addition to the burner tuning required above, the permittee shall conduct additional burner tuning, within 30 production days , for each type of fuel burned during the production season that is different than the fuel(s) burned during the initial burner tuning or the burner tuning described above that occurs 90 to 120 production days after the initial burner tuning .
6. The permittee may substitute reclaimed asphalt pavement (RAP) in the raw material feed mix in amounts not to exceed 50 percent of all aggregate materials.
7. The exit of the stack serving this emissions unit shall be a minimum of 65 feet above ground.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall receive a chemical analysis with each shipment of on-spec used oil from the supplier. The analysis shall identify the name and address of the supplier, the supplier's USEPA identification number, and the following information:
 - a. Date of shipment or delivery;

- b. Quantity of on-spec used oil received;
- c. The Btu value of the on-spec used oil;
- d. The flash point of the on-spec used oil;
- e. The arsenic content;
- f. The cadmium content;
- g. The chromium content;
- h. The lead content;
- i. The PCB content;
- j. The total halogen content; and
- k. The mercury content.

Each analysis shall be kept in a readily accessible location for at least 5 years and shall be made available to the Ohio EPA, Central District Office upon verbal or written request. The Director or any authorized representative of the Director may require or may conduct periodic, detailed chemical analyses through an independent laboratory of any used oil shipment received by this facility, of any used oil stored at this facility, or of any used oil sampled at the dryer.

- 2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the fabric filter while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the fabric filter on daily basis.
- 3. The permittee shall maintain monthly records of the following information:
 - a. The asphalt production for each month;
 - b. The rolling, 12-month summation of the asphalt production; and
 - c. The maximum percentage RAP used for any mix.

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4. For each shipment of number 2 fuel oil, and on-spec used oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittees or oil supplier's analyses for sulfur content and heat content.

5. The permittee shall perform daily visible emission checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the enclosures for the hot aggregate elevator, vibrating screens and weigh hopper servicing this emissions unit. If visible particulate emissions are observed, the permittee shall note the following in the operation log:
 - a. The color of the visible particulate emissions;
 - b. The cause of the visible particulate emissions;
 - c. The total duration of the visible particulate emission incident; and
 - d. Corrective actions taken to eliminate the visible particulate emissions.

The permittee may, upon receipt of written approval from the Ohio EPA, Central District Office, modify the above-mentioned visible particulate emissions check frequency if operating experience indicates that less frequent checks would be sufficient to ensure compliance with the visible particulate emissions requirements.

6. The permittee shall perform daily visible emission checks, when the emissions unit is in operation and when the weather conditions allow, for any abnormal visible particulate emissions from the stack, aggregate storage bins and cold aggregate elevator/conveyor serving this emissions unit. If abnormal visible emissions are observed, the permittee shall note the following in the operation log:
 - a. The color of the abnormal visible particulate emissions;
 - b. The cause of the abnormal visible particulate emissions;
 - c. The total duration of any abnormal visible particulate emissions incident; and
 - d. Any corrective actions taken to eliminate the abnormal visible particulate emissions.

The permittee may, upon receipt of written approval from the Ohio EPA, Central District Office modify the above-mentioned visible particulate emissions check frequency if operating experience

Emissions Unit ID: **P001**

indicates that less frequent checks would be sufficient to ensure compliance with the visible particulate emissions requirements.

7. The permittee shall properly operate and maintain portable devices to monitor the concentration of NO_x , CO , O_2 , and CO_2 present in the flue gases generated within the drum and/or stack during the burner performance tuning. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall maintain records of each portable monitoring device's calibration.
8. While performing the required burner tuning, the permittee shall record the following information:
 - a. Date of the burner tuning;
 - b. Results of the evaluation of the operating parameters listed above in A.2.e.;
 - c. Detail list of adjustments and/or repairs made to bring the operating parameters into conformance with the manufacturer's specifications; and
 - d. Type of fuel(s) employed during the burner tuning.
9. 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: Heptane

TLV ($\mu\text{g}/\text{m}^3$): 1,640,000

Maximum Hourly Emission Rate (lbs/hr): 3.76

Predicted 1-Hour Maximum Ground-Level
Concentration ($\mu\text{g}/\text{m}^3$): 465.5

MAGLC ($\mu\text{g}/\text{m}^3$): 39,048

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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 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 quarterly 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 above. These reports are due by the date described in Part 1- General Terms and Condition of this permit under section (A)(2).
2. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling 12-month asphalt production limitation . These reports are due by the date described in Part 1- General Terms and Conditions of this permit under section (A)(2).
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the RAP limitation specified above. These reports are due by the date described in Part 1- General Terms and Condition of this permit under section (A)(2).
4. The permittee shall submit annual reports which specify the total PM, SO₂, NO_x, VOC and CO emissions from this emissions unit for the previous calendar year. These reports shall be submitted by April 15 of each year.
5. The permittee shall notify the USEPA and the Ohio EPA if any of the on spec used oil exceeds the on spec used oil specifications found in OAC rule 3745-279-11. If the permittee is burning on spec used oil which exceeds the specifications found in OAC rule 3745-279-11, the permittee is subject to that rule and must comply with all provisions of that rule. The required notification shall be submitted within 30 days of the date in which the exceedance occurred.
6. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the sulfur content limit specified above. These reports are due by the date described in Part 1- General Terms and Condition of this permit under section (A)(2).
7. The permittee shall submit quarterly deviation (excursion) reports that identify any of the following occurrences:
 - a. Identify all days during which any abnormal visible particulate emissions were observed from the stack, aggregate storage bins and cold aggregate elevator/conveyors serving this emissions unit;
 - b. Identify all days during which any visible fugitive particulate emissions were observed from the enclosures for the hot aggregate elevator, vibrating screens, weigh hopper;
 - c. Describe any corrective actions taken to eliminate the abnormal visible particulate emissions.

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These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

8. The permittee shall submit burner performance tuning reports to the Ohio EPA Central District Office that summarize the results of each burner performance tuning. These reports are due within 30 days of the date that the burner performance tuning was performed.

E. Testing Requirements

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitations: PE shall not exceed 0.04 gr/dscf; VOC emissions from burning natural gas shall not exceed 12.8 lbs/hr, VOC emissions from burning number 2 fuel shall not exceed 37.6 lbs/hr, VOC emissions shall not exceed 37.6 lbs/hr when burning on-spec used oil; CO emissions from burning number 2 fuel or on-spec used oil shall not exceed 180.0 pounds per hour. CO emissions from burning natural gas shall not exceed 52.0 lbs/hr. SO₂ emissions from burning number 2 fuel shall not exceed 4.4 pounds per hour. SO₂ emissions from burning on spec used oil shall not exceed 71.9 pounds per hour. SO₂ emissions from burning natural gas shall not exceed 1.36 lbs/hr; NO_x emissions from burning natural gas shall not exceed 10.4 lbs/hr and NO_x emissions from burning number 2 fuel or on-spec used oil shall not exceed 18.3 lbs/hr.

Applicable Compliance Method: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- i. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of the emissions unit.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PM, VOC, CO, NO_x and SO₂.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s) for:

For PM, Methods 1-5 of 40 CFR Part 60, Appendix A.

For NO_x, Methods 1-4 and 7 or 7E of 40 CFR Part 60, Appendix A.

For SO₂, Methods 1-4 and 6 or 6C of 40 CFR Part 60, Appendix A

For CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A

For VOC, Methods 1-4 and 18 and/or 25 of 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 this emissions unit is operating at or near its maximum capacity and burning natural gas or number 2 fuel oil or on spec used oil for PM, VOC, CO, NO_x and SO₂ and employing RAP to verify VOC emissions, unless otherwise specified or approved by the Ohio EPA, Central District Office.

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 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.

Note: the VOC hourly allowable emission rate while burning natural gas was established by multiplying the maximum hourly production rate of 400 tons/hour by the emission factor of 0.032 lb VOC/ton, as specified in U.S. EPA reference document AP-42, 11.1-8 (12/00). Upon request, Ohio EPA will review the allowable emission limit to determine if

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it needs to be adjusted due to the change in the compliance method.

- b. Emissions Limitation: PE emissions shall not exceed 5.75 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions limitation shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of PE per ton of asphalt produced, by the actual rolling 12 month summation of asphalt produced, in tons per rolling 12-month period, (as derived from the records required by term and condition C.3 above) and dividing by 2000.

- c. Emission Limitation: VOC emissions shall not exceed 26.8 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions limitation shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of VOC per ton of asphalt produced, by the actual rolling 12 month summation of asphalt produced, in tons per rolling 12-month period, (as derived from the records required by term and condition C.3 above) and dividing by 2000.

- d. Emission Limitation: CO emissions shall not exceed 93.4 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions limitation shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of CO per ton of asphalt produced, by the actual rolling 12 month summation of asphalt produced, in tons per rolling 12-month period, (as derived from the records required by term and condition C.3 above) and dividing by 2000.

- e. Emission Limitation: SO₂ emissions shall not exceed 51.3 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions limitation shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of SO₂ per ton of asphalt produced, by the actual rolling 12 month summation of asphalt produced, in tons per rolling 12-month period, (as derived from the records required by term and condition C.3 above) and dividing by 2000.

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- f. Emission Limitation: NO_x emissions shall not exceed 12.0 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions limitation shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of NO_x per ton of asphalt produced, by the actual rolling 12 month summation of asphalt produced, in tons per rolling 12-month period, (as derived from the records required by term and condition C.3 above) and dividing by 2000.

- g. Emission Limitations: Arsenic, cadmium, chromium and lead emissions are limited by the fuel specifications in A.2.b.

Applicable Compliance Method: Compliance with the emissions limitation for arsenic, cadmium and lead shall be demonstrated by the monitoring and record keeping in Section C.1 of this permit.

- h. Emission Limitation: Visible particulate emissions from the stack shall not exceed 10% opacity as a 3-minute average.

Applicable Compliance Method: Compliance shall be determined using Method 9 as set forth in 40 CFR Part 60 Appendix A, as such appendix existed on July 1, 1996 and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

- i. Emission Limitation: No visible emissions of fugitive dust from the enclosures for the hot aggregate elevator, vibrating screens and weigh hopper.

Applicable Compliance Method: Compliance with the limitations on visible emissions of fugitive dust found in Section A.1 of this permit shall be demonstrated by the monitoring and record keeping in Section C.5.

- j. Emission Limitation: Visible emissions of fugitive dust (from areas other than the enclosures for the hot aggregate elevator, vibrating screens, and weigh hopper) shall be less than or equal to 10% opacity, as a 3-minute average.

Applicable Compliance Method: Compliance shall be determined in accordance with Test Method 9 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)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

- k. Emissions Limitation: PM₁₀ emissions from the stack shall not exceed 5.75 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions limitation shall be assumed as long as compliance is maintained with the rolling 12-month emissions limitation for particulate emissions.

- l. Emissions Limitation: Fugitive PM₁₀ emissions shall not exceed 1.01 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions limitation shall be assumed based upon the following worst case calculations:

Total fugitive emissions equal the summation of the fugitives from the cold end and the hot end of the plant operations.

Fugitives emissions from the cold end are calculated as follows

$$((415,000 \text{ tons of material/year} \times 0.0024 \text{ lb PM}_{10}/\text{ton of material}) + (207,500 \text{ tons of aggregate/year} \times 0.0033 \text{ lb PM}_{10}/\text{ton of aggregate}) + (207,500 \text{ tons of sand/year} \times 0.00099 \text{ lb PM}_{10}/\text{ton of sand})) \times (1 \text{ ton}/2000 \text{ pounds}) = 0.943 \text{ tons of PM}_{10}$$

Fugitives emissions from the hot end are calculated as follows

$$(415,000 \text{ tons of asphalt produced} \times 0.0003 \text{ lb of PM}_{10}/\text{ton of asphalt produced}) \times (1 \text{ ton}/2000 \text{ pounds}) = 0.06225 \text{ ton of PM}_{10}$$

Total fugitive emissions are therefore 1.01 tons

The emission factors in the above equations are derived from AP-42, Fifth edition, Table 11.12-2(10/01) and from AP-42, Fifth edition, 11.1.2.5(12/00)

- m. Emissions Limitation: Fugitive PM emissions shall not exceed 2.05 tons per rolling 12-month period.

Applicable Compliance Method: Compliance with the annual emissions limitation shall be assumed based upon the following worst case calculations:

Total fugitive emissions equal the summation of the fugitives from the cold end and the hot end of the plant operations.

Fugitives emissions from the cold end are calculated as follows

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$((415,000 \text{ tons of material/year} \times 0.0051 \text{ lb PM/ton of material}) + (207,500 \text{ tons of aggregate/year} \times 0.0069 \text{ lb PM/ton of aggregate}) + (207,500 \text{ tons of sand/year} \times 0.0021 \text{ lb PM/ton of sand})) \times (1 \text{ ton}/2000 \text{ pounds}) = 1.992 \text{ tons of PM}$

Fugitives emissions from the hot end are calculated as follows

$(415,000 \text{ tons of asphalt produced} \times 0.0003 \text{ lb of PM/ton of asphalt produced}) \times (1 \text{ ton}/2000 \text{ pounds}) = 0.06225 \text{ ton of PM.}$

Total fugitive emissions are therefore 2.05 tons.

The emission factors in the above equations are derived from AP-42, Fifth edition, Table 11.12-2(10/01) and from AP-42, Fifth edition, 11.1.2.5(12/00)

- n. Emission Limitations: Emissions of fugitive PM₁₀ shall not exceed 1.01 pounds per hour when burning on-spec oil, number 2 fuel oil, or natural gas.

Applicable Compliance Method: Compliance with this emissions limitation shall be assumed based upon the following worst case calculation:

$1.01 \text{ PM}_{10}/\text{yr} \times 2000 \text{ lbs/ ton} \times 1\text{yr}/2000 \text{ hours} = 1.01 \text{ PM}_{10}/\text{hr}$

- o. Emission Limitations: Emissions of fugitive PM shall not exceed 2.05 pounds per hour when burning on-spec oil, number 2 fuel oil, or natural gas.

Applicable Compliance Method: Compliance with this emissions limitation shall be assumed based upon the following worst case calculation:

$2.05 \text{ ton PM/ yr} \times 2000 \text{ lbs/ ton} \times 1\text{yr}/2000 \text{ hours} = 2.05 \text{ lb PM/hr}$

F. Miscellaneous Requirements

1. The following source is subject to the applicable provision 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	400 tph asphalt plant	Subpart I

**Shelly
PTI A**

Emissions Unit ID: **P001**

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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 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. Actual start-up date (within 15 days after such date); and
- c. 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, OH 43207

2. The terms and conditions of this PTI are federally enforceable.
3. With respect to emissions unit P001, this PTI replaces PTI # 01-8323 as issued on July 24, 2001.

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Shelly Materials Plant 91
PTI A
Issued

Facility ID: 0125232454

Emissions Unit ID: **P001**

NEW SOURCE REVIEW FORM B

PTI Number: 01-08828 Facility ID: 0125232454

FACILITY NAME Shelly Materials Plant 91

FACILITY DESCRIPTION Hox mix asphalt CITY/TWP Westerville

SIC CODE 2951 SCC CODE EMISSIONS UNIT ID P001

EMISSIONS UNIT DESCRIPTION 400 TPH counterflow drum mix asphalt plant controlled by a baghouse

DATE INSTALLED 1991

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	0.04 grains	5.75	0.04 grains	5.75
PM ₁₀			1.01		1.01
Sulfur Dioxide	attainment	71.9	51.3	71.9	51.3
Organic Compounds	attainment	37.6	26.8	37.6	26.8
Nitrogen Oxides	attainment	18.3	12	18.3	12
Carbon Monoxide	attainment	191.5	93.4	191.5	93.4
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? I

NESHAP? I

PSD?

OFFSET POLICY?

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

Enter Determination Compliance with the applicable rules and permitted emission limits

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:

heptane