



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
LAWRENCE COUNTY**

CERTIFIED MAIL

Street Address:

122 S. Front Street

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

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

Application No: 07-00529

DATE: 1/22/2004

Shelly Materials - Plant No. 1
Larry Shivley
P.O. Box 266 8775 Blackbird Ln
Thornville, OH 430769790

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

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

cc: USEPA

PCHD



**Permit To Install
Terms and Conditions**

**Issue Date: 1/22/2004
Effective Date: 1/22/2004**

FINAL PERMIT TO INSTALL 07-00529

Application Number: 07-00529
APS Premise Number: 0744000097
Permit Fee: **\$1000**
Name of Facility: Shelly Materials - Plant No. 1
Person to Contact: Larry Shivley
Address: P.O. Box 266 8775 Blackbird Ln
Thornville, OH 430769790

Location of proposed air contaminant source(s) [emissions unit(s)]:
**Rte.4, St. Rt. 7
Proctorville, Ohio**

Description of proposed emissions unit(s):
Modification to allow the use of alternative fuels at the Asphalt Batch Plant.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

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

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 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 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

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 ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

Shelly Materials - Plant No. 1
 PTI Application: 07-00529
 Issued: 1/22/2004

Facility ID: 0744000097

14. Construction Compliance Certification

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

15. Fees

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

B. Permit to Install Summary of Allowable Emissions

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

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

| <u>Pollutant</u> | <u>Tons Per Year</u> |
|-----------------------------|----------------------|
| CO | 80 |
| VOC | 19.8 |
| NO _x | 15.4 |
| SO ₂ | 31.2 |
| PM/PM ₁₀ (stack) | 5.8 |
| PM(fugitive) | 0.9 |
| PM ₁₀ (fugitive) | 0.43 |

Shelly Materials - Plant No. 1
PTI Application: 07-00530
Issued

Facility ID: 0744000097

Emissions Unit ID: P001

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

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property,
and/or Equipment

P001 - 290 TPH Hot Mix Asphalt
Batch Plant (natural gas/#2 fuel
oil/used oil fired)with a baghouse

Modification to add the use of used
oil and No. 2 fuel oil

Terms and conditions in this permit
supersede those identified in PTI #
07-125 issued 6/4/86.

Aggregate storage bins, cold
aggregate elevator

8

Shelly

PTI A

Issued: 1/22/2004

Emissions Unit ID: **P001**

Applicable Rules/Requirements

OAC rule 3745-31-05(A)(3)

OAC rule 3745-17-07(A)

OAC rule 3745-17-11(B)

OAC rule 3745-18-06(E)

OAC rule 3745-31-05(D)

OAC rule 3745-31-05(A)(3)

40 CFR Part 60, Subpart I

OAC rule 3745-23-06(B)

Shelly**PTI A****Issued: 1/22/2004**Emissions Unit ID: **P001**

| <u>Applicable Emissions Limitations/Control Measures</u> | | |
|--|---|---|
| Emissions from the baghouse stack shall not exceed: | number 2 fuel oil; | discharge into the atmosphere any stack gases which exhibit 20 percent opacity or greater. |
| 45.3 pounds per hour (lbs/hr) sulfur dioxide (SO ₂) when burning on-spec used oil; | 116 lbs/hr CO when burning natural gas; | See Section A.2.b. |
| 45.3 pounds per hour (lbs/hr) SO ₂ when burning number 2 fuel oil; | 8.41 lbs/hr particulate matter/particulate matter less than 10 microns (PM/PM ₁₀) when burning on-spec used oil; | The emissions limitation specified by this rule is equivalent to the emission limitation established pursuant to 40 CFR Part 60 Subpart I. |
| 1.33 lbs/hr SO ₂ when burning natural gas; | 8.41 lbs/hr PM/PM ₁₀ when burning number 2 fuel oil; | The emissions limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| 22.3 lbs/hr nitrogen oxides (NO _x) when burning on-spec used oil; | 3.48 lbs/hr PM/PM ₁₀ when burning natural gas; | The emissions limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| 22.3 lbs/hr NO _x when burning number 2 fuel oil; | See Section A.2.a for emission control measures. | The emissions limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| 7.25 lbs/hr NO _x when burning natural gas; | The requirements of this rule also include compliance with the requirements of 40 CFR Part 60 Subpart I, OAC rule 3745-23-06(B) and OAC rule 3745-31-05(D). | Visible PE of fugitive dust shall be less than or equal to 10% opacity, as a 3-minute average. |
| 28.7 lbs/hr volatile organic compounds (VOC) when burning on-spec used oil; | Emissions shall not exceed, as a 12 month rolling summation: | Emissions of fugitive PM shall not exceed 2.0 pounds per hour when burning on-spec used oil, number 2 fuel oil, or natural gas. |
| 28.7 lbs/hr VOC when burning number 2 fuel oil; | 80 TPY CO | |
| 2.38 lbs/hr VOC when burning natural gas; | 31.2 TPY SO ₂ | |
| | 19.8 TPY VOC | |
| | 15.4 TPY NO _x | |
| | 5.8 TPY PM/PM ₁₀ | |
| | 0.9 TPY PM (fugitive) | |
| | 0.43 TPY PM ₁₀ (fugitive) | |
| 106.7 lbs/hr carbon monoxide (CO) when burning on-spec used oil; | PE from the stack shall not exceed 0.04 grain/dscf . | Emissions of fugitive PM ₁₀ shall not exceed 0.96 pounds per hour when burning on-spec used oil, number 2 fuel oil, or natural gas.. |
| 106.7 lbs/hr CO when burning | The emissions unit shall not | The drop height of the front end loader bucket shall be minimized to the extent possible in order to |

minimize or eliminate visible emissions of fugitive dust from the elevator loading area.

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

2. Additional Terms and Conditions

- 2.a** The baghouse shall be used at all times when the emissions unit is in operation.
- 2.b** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3).
- 2.c** The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.

B. Operational Restrictions

- 1.** To ensure the baghouse is operated according to the manufacturer’s specifications and to maintain compliance with the allowable particulate emission rate, the pressure drop across the baghouse shall be maintained within the range of 2.0 to 8.0 inches of water while the emissions unit is in operation.
- 2.** The maximum asphalt production rate for emissions unit P001 shall not exceed 400,000 tons based upon a 12-month rolling summation of the production rates. To ensure enforceability during the first 12 calendar months of operation following the startup of the modified emissions unit P001, the permittee shall not exceed the production levels specified in the following table:

| <u>Month(s)</u> | <u>Maximum Allowable Cumulative Production (Tons)</u> |
|-----------------|---|
| 1 | 200,000 |
| 1-2 | 300,000 |
| 1-3 | 400,000 |
| 1-4 | 400,000 |
| 1-5 | 400,000 |
| 1-6 | 400,000 |

| | |
|------|---------|
| 1-7 | 400,000 |
| 1-8 | 400,000 |
| 1-9 | 400,000 |
| 1-10 | 400,000 |
| 1-11 | 400,000 |
| 1-12 | 400,000 |

After the first 12 calendar months of operation following the startup of the modified emissions unit P001, compliance with the production rate limitation shall be based upon a 12-month rolling summation of the production rates.

3. All recycled, used oil burned in emissions unit P001 shall meet the following specifications:

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 |

* If the permittee is burning used oil with any quantifiable level ≥ 2 ppm < 50 ppm of PCB's, then the permittee is subject to any applicable requirements found under 40 CFR part 279, subparts G and H and 40 CFR 761.20 (e).

** Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under 40 CFR 279.10 (b)(1)(ii) and OAC rule 3745-279-10 (B)(1)(b). Therefore, the permittee may receive and burn used oil exceeding 1000 ppm of total halogens (but less than 4000 ppm, maximum) only if the used oil burner can demonstrate the used oil does not contain any hazardous waste pursuant to OAC rule 3745-279-63.

4. The burning of hazardous waste is prohibited without first complying with all applicable state and federal hazardous waste and air regulations and permits.
5. The permittee shall only burn low sulfur fuels, containing less than 0.5% sulfur by weight, in this emissions unit.

6. The permittee may substitute recycled asphalt pavement (RAP) aggregates in the raw material feed mix in amounts not to exceed 50% of all aggregate materials introduced, based on a monthly average of all aggregate material.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a once per day basis.
2. The permittee shall maintain monthly records of the following information for emissions unit P001:
 - a. The asphalt production, in tons.
 - b. For the first 12 calendar months following the startup of the modified emissions unit P001, the cumulative asphalt production calculated by adding the current month's asphalt production to the asphalt production for each calendar month since the startup of the modified emissions unit P001.
 - c. Beginning after the first 12 calendar months following the startup of the modified emissions unit P901, the 12-month rolling summation of asphalt production calculated by adding the current month's asphalt production to the asphalt production for the preceding eleven calendar months.
 - d. The total amount of aggregate used in the raw material feed mix.
 - e. The amount of RAP used in the raw material feed mix.
 - f. The average percentage of RAP used (e. divided by d. multiplied by 100).
3. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for the following:
 - a. The date(s) of shipment or delivery.
 - b. The quantity of oil received.

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Emissions Unit ID: P001

- c. The heat content, in BTU/gallon.
- d. The flash point, in degrees F (required only for used oil).
- e. The arsenic content, in ppm (required only for used oil).
- f. The cadmium content, in ppm (required only for used oil).
- g. The chromium content, in ppm (required only for used oil).
- h. The lead content, in ppm (required only for used oil).
- i. The PCB content, in ppm (required only for used oil).
- j. The total halogen content, in ppm (required only for used oil).
- k. The mercury content, in ppm (required only for used oil).
- l. The sulfur content, in percent (%) by weight.

A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.

The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the permittee's or oil supplier's analyses for items a - 1 above. A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, and the permittee's analyses for items a - 1 above.

4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible PE from the stack and any visible fugitive PE from the aggregate storage bins and cold aggregate elevator associated with 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. The color of the emissions;
 - b. Whether the emissions are representative of normal operations;
 - c. If the emissions are not representative of normal operations, the cause of the abnormal emissions;

- d. The total duration of any visible emission incident; and
- e. Any corrective actions taken to eliminate the visible emissions.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. All periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in Section B.1.
 - b. All exceedances of the 12-month rolling production rate limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative production levels.
 - c. All exceedances of sulfur content fuel restriction specified in Section B.5.

These reports shall due by the dates specified in Part I - General Terms and Conditions of this permit under Section A.2.

2. The permittee shall notify the USEPA and the Ohio EPA if any of the used oil exceeds the used oil specifications found in OAC rule 3745-279-11 and the applicable portions of 40 CFR part 761, and shall also notify Ohio EPA if any used oil exceeds the mercury limitation and falls below the heat content limitation listed in Section B.3 within thirty days after the exceedance occurs. If the permittee is burning used oil which exceeds the specifications found in OAC rule 3745-279-11 and the applicable portions 40 CFR part 761, the permittee is subject to that rule and must comply with all applicable provisions of that rule(s).
3. The permittee shall submit deviation (excursion) reports which identify any exceedance of the 50 percent RAP content limitation specified in Section B.6. The notification shall be sent to the Portsmouth Local Air Agency within 30 days after the exceedance occurs.
4. The permittee shall submit semiannual written reports that include the following:
 - a. An identification of all days during which any visible PE or fugitive PE were observed from the stack and the aggregate storage bins and cold aggregate elevator associated with this emissions unit.
 - b. A description of any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Portsmouth Local Air Agency by January 31 and July 31 of each year and shall cover the previous 6-month period.

Issued: 1/22/2004

5. Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:
 - a. Construction date (no later than 30 days after such date);
 - b. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
 - c. Actual start-up date (within 15 days after such date); and
 - d. Date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P. O. Box 163669
Columbus, Ohio 43216-3669

and

Portsmouth Local Air Agency
605 Washington St, Third floor
Portsmouth, OH 45662

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

Applicable Emission Limitation
Compliance shall be determined in accordance with Test Methods 1-5 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").
 - b. Emission Limitation:
Emissions shall not exceed 5.8 tons PM/PM₁₀ from the stack as a 12-month rolling

summation.

Applicable Compliance Method:

Compliance shall be determined based upon the following equation:

$$E = EF * AAPR * 1 \text{ ton}/2000 \text{ lb} = \text{TPY of particulates}$$

Where

EF is the PE emission factor in lb/ton, and is based on the most recent stack test as required in Section E. 2., and AAPR, is the actual asphalt production rate, in tons for each 12-month period as monitored and recorded in Section C. 2.

- c. Emission Limitation:
The emissions unit shall not discharge into the atmosphere any stack gases which exhibit 20 percent opacity or greater.

Applicable Compliance Method:

If required, 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").

- d. Emission Limitation:
Visible PE of fugitive dust shall be less than or equal to 10% opacity, as a 3-minute average.

Applicable Compliance Method:

If required, 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").

- e. Emissions Limitation:
Emissions shall not exceed 0.9 ton fugitive PM as a 12-month rolling summation.

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be assumed based upon the following worst case calculation, where total fugitive emissions equal the summation of

Emissions Unit ID: P001

the fugitives from the aggregate storage bins, cold aggregate elevator, and associated operations:

$$((200,000 \text{ tons of aggregate/year} \times 0.0069 \text{ lb PM/ton of aggregate}) + (200,000 \text{ tons of sand/year} \times 0.0021 \text{ lb PM/ton of sand})) \times (1 \text{ ton}/2000 \text{ lb}) = 0.9 \text{ ton}$$

The emissions factors in the above equation are derived from AP-42, Fifth Edition, Table 11.12-2(10/01).

- f. Emissions Limitation:
Emissions shall not exceed 0.43 ton fugitive PM₁₀ as a 12-month rolling summation.

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be assumed based upon the following worst case calculation, where total fugitive emissions equal the summation of the fugitives from the aggregate storage bins, cold aggregate elevator, and associated operations:

$$((200,000 \text{ tons of aggregate/year} \times 0.0033 \text{ lb PM}_{10}/\text{ton of aggregate}) + (200,000 \text{ tons of sand/year} \times 0.00099 \text{ lb PM}_{10}/\text{ton of sand})) \times (1 \text{ ton}/2000 \text{ lb}) = 0.9 \text{ ton}$$

The emissions factors in the above equation are derived from AP-42, Fifth Edition, Table 11.12-2(10/01).

- g. Emission Limitation:
Emissions of fugitive PM shall not exceed 2.0 pounds per hour when burning on-spec used oil, number 2 fuel oil, or natural gas..

Applicable Compliance Method:

Compliance with the hourly fugitive PM emissions limitation shall be assumed based on multiplying the worst case AP-42 emission factor of 0.0069 lb PM/ton (Fifth Edition, Table 11.12-2,10/01) by the maximum rated capacity of P001 (290 TPH).

- h. Emission Limitation:
Emissions of fugitive PM₁₀ shall not exceed 0.96 pounds per hour when burning on-spec used oil, number 2 fuel oil, or natural gas..

Applicable Compliance Method:

Compliance with the hourly fugitive PM₁₀ emissions limitation shall be assumed based on multiplying the worst case AP-42 emission factor of 0.0033 lb PM₁₀/ton (Fifth Edition, Table 11.12-2,10/01) by the maximum rated capacity of P001 (290 TPH).

- i. Emission Limitation:

45.3 pounds per hour (lbs/hr) sulfur dioxide (SO₂) when burning on-spec used oil or Number 2 fuel oil;
22.3 lbs/hr nitrogen oxides (NO_x) when burning on-spec used oil or Number 2 fuel oil;
28.7 lbs/hr volatile organic compounds (VOC) when burning on-spec used oil or number 2 fuel oil;
106.7 lbs/hr carbon monoxide (CO) when burning on-spec used oil or number 2 fuel oil;
8.41 lbs/hr particulate matter/particulate matter less than 10 microns (PM/PM₁₀) when burning on-spec used oil or number 2 fuel oil;

Applicable Compliance Method:

Compliance shall be determined by emission testing as required in section E. 2 of these terms and conditions.

The hourly emission limits when burning on-spec used oil or Number 2 fuel oil were determined by multiplying the appropriate emission factor* by the maximum hourly capacity of the emission unit (290 tons/hour).

* The following emission factors were based on best engineering judgement and were developed using emission test data from a similar source.

CO - 0.368 lb/ton, VOC - 0.099 lb/ton, NO_x - 0.077 lb/ton, SO₂ - 0.156 lb/ton,
PM/PM₁₀ - 0.029 lb/ton (from AP-42 table 11.1-1)

j. Emission Limitation:

1.33 pounds per hour (lbs/hr) SO₂ when burning natural gas;
7.25 lbs/hr NO_x when burning natural gas;
2.38 lbs/hr VOC when burning natural gas;
116 lbs/hr CO when burning natural gas;
3.48 lbs/hr PM/PM₁₀ when burning natural gas;

Applicable Compliance Method:

The hourly emission limits when burning natural gas were determined by multiplying the appropriate emission factor* by the maximum hourly capacity of the emission unit (290 tons/hour).

* The following emission factors were based on AP-42 table 11.1-5 and table 11.1-6.

CO - 0.4 lb/ton, VOC - 0.0082 lb/ton, NO_x - 0.025 lb/ton, SO₂ - 0.0046 lb/ton,

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PM/PM₁₀ - 0.012 lb/ton (based on similar source stack test)

- k. Emission Limitation:
 Emissions shall not exceed 80 tons CO as a 12-month rolling summation.

Applicable Compliance Method:
 Compliance shall be determined based upon the following equation:

$$E = EF * AAPR * 1 \text{ ton}/2000 \text{ lb} = \text{TPY of CO}$$

Where

EF is the CO emission factor in lb/ton, and is based on the most recent stack test as required in Section E. 2., and
 AAPR, is the actual asphalt production rate, in tons for each 12-month period as monitored and recorded in Section C. 2.

- l. Emission Limitation:
 Emissions shall not exceed 31.2 tons SO₂ as a 12-month rolling summation.

Applicable Compliance Method:
 Compliance shall be determined based upon the following equation:

$$E = EF * AAPR * 1 \text{ ton}/2000 \text{ lb} = \text{TPY of SO}_2$$

Where

EF is the SO₂ emission factor in lb/ton, and is based on the most recent stack test as required in Section E. 2. and
 AAPR, is the actual asphalt production rate, in tons for each 12-month period as monitored and recorded in Section C. 2.

- m. Emission Limitation:
 Emissions shall not exceed 15.4 tons NO_x as a 12-month rolling summation.

Applicable Compliance Method:
 Compliance shall be determined based upon the following equation:

$$E = EF * AAPR * 1 \text{ ton}/2000 \text{ lb} = \text{TPY of NO}_x$$

Where

EF is the NO_x emission factor in lb/ton, and is based on the most recent stack test as required in Section E. 2., and AAPR, is the actual asphalt production rate, in tons for each 12-month period as monitored and recorded in Section C. 2.

- n. Emission Limitation:
Emissions shall not exceed 19.8 tons VOC as a 12-month rolling summation.

Applicable Compliance Method:
Compliance shall be determined based upon the following equation:

$$E = EF * AAPR * 1 \text{ ton}/2000 \text{ lb} = \text{TPY of VOC's}$$

Where

EF is the VOC emission factor in lb/ton, and is based on the most recent stack test as required in Section E. 2., and

AAPR, is the actual asphalt production rate, in tons for each 12-month period as monitored and recorded in Section C. 2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 3 months after startup of the modified emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for PM/PM₁₀, CO, NO_x, SO₂, and VOC.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1-5 for PM/PM₁₀, Method 25 for VOC, Method 1-4 and 10 for CO, Method 1-4 and 6 for SO₂, and Method 1-4 and 7 for NO_x.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity number 2 fuel oil or on-spec used oil and per cent of RAP listed in air permit, unless otherwise specified or approved by the Portsmouth Local Air Agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to

Test" notification to the Portsmouth Local Air Agency. 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 Portsmouth Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Portsmouth Local Air Agency 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 Portsmouth Local Air Agency 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 Portsmouth Local Air Agency.

F. Miscellaneous Requirements

1. 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 (mg/m³): 1639.26

Maximum Hourly Emission Rate (lbs/hr): 2.73

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m³): 400.3

MAGLC (ug/m³): 39030

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 description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

- a. Documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- b. 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.