State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL MODIFICATION** **CERTIFIED MAIL**
**MAHONING COUNTY**

Street Address:
122 S. Front Street

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

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049

**Application No: 02-19250**
**Fac ID: 0250110985**

**DATE:** 11/1/2005

Mar-Zane, Inc., Plant 28
Ronald P. Morrison
P.O. Box 1585
Zanesville, OH 43701

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

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

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

**CC:** **USEPA** **NEDO**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**Permit To Install** **Issue Date: 11/1/2005**
**Terms and Conditions** **Effective Date: 11/1/2005**

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 02-19250

| | |
|---|---|
| Application Number: | 02-19250 |
| Facility ID: | 0250110985 |
| Permit Fee: | **$450** |
| Name of Facility: | Mar-Zane, Inc., Plant 28 |
| Person to Contact: | Ronald P. Morrison |
| Address: | P.O. Box 1585<br>Zanesville, OH 43701 |

Location of proposed air contaminant source(s) [emissions unit(s)]:
**2800 Center Street**
**Youngstown**, **Ohio**

Description of proposed emissions unit(s):
**Modification to increase hourly SO2 emissions from non-slag mixes only. Annual emission limit will not change.**

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification 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 source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Joseph P. Koncelik

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.

**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 |
|---|---|
| PM | 6.10 |
| PM10 | 4.25 |
| SO2 | 24.98 |
| CO | 26.00 |
| NOx | 11.00 |

| | |
|---|---|
| VOC | 32.40 |

## 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 | Applicable Rules/Requirements |
|---|---|
| P901 - 365 TPH (derated from 445 TPH) drum-mix asphalt plant, equipped with a cyclone and a fabric filter baghouse. Modification of P901 to add ability to burn fuels other than natural gas, including nos. 2, 4, and 6 oils and on-spec used oil. | OAC rule 3745-31-05(A)(3) |
| | OAC rule 3745-31-05 (C) |
| This plant is derated to 265 TPH while producing slag mixes. | |
| The terms and conditions of this PTI supercede the terms and conditions of PTI 02-2852 for P901, issued on June 16, 1999. | 40 CFR Part 60, Subpart I |
| | OAC rule 3745-17-11(B) |

Emissions Unit ID: **P901**

| | | |
|---|---|---|
| OAC rule 3745-17-07(A) | Applicable Emissions Limitations/Control Measures | See sections A.2.b. through A.2.e. |
| OAC rule 3745-18-06(E)(2) | While burning natural gas, nos. 2, 4 or 6 fuel oils, or on-spec used oil, the following emission limitations shall be met: | $SO_2$: 24.98 tons per rolling, 12-month period<br><br>VOC: 32.40 tons per rolling, 12-month period |
| OAC rule 3745-17-08(B) | 11.15 lbs/hr and 6.10 TPY of particulate emissions (PE) from the stack serving this emissions unit | 0.04 gr of PE/dscf of exhaust gas<br><br>Visible emissions from the stack serving this emissions unit shall not exceed 20% opacity, as a six-minute average. |
| OAC rule 3745-17-07(B) | 47.45 lbs/hr and 26.00 TPY of carbon monoxide (CO)<br><br>20.08 lbs/hr and 11.00 TPY of nitrogen oxides ($NO_x$) | The emission limitation in this rule is less stringent than the limit established pursuant to OAC rule 3745-31-05(A)(3). |
| OAC rule 3745-23-06(B) and OAC rule 3745-21-08(B) | 97.55 lbs/hr (slag mixes), 16.06 lbs/hr (non-slag mixes) and 24.98 TPY of sulfur dioxide ($SO_2$)<br><br>59.13 lbs/hr and 32.40 TPY of volatile organic compounds (VOC)<br><br>Emissions of fugitive PE shall not exceed 2.56 TPY.<br><br>The requirements of this rule also include compliance with the requirements of 40 CFR, Part 60, Subpart I.<br><br>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see section A.2.a). | The visible emission limitation in this rule is less stringent than the limit established pursuant to OAC rule 3745-31-05(A)(3).<br><br>The emission limitation in this rule is less stringent than the limit established pursuant to OAC rule 3745-31-05(A)(3).<br><br>The control measure requirements in this rule are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3).<br><br>The visible emission limitation in this rule is less stringent than the limit established pursuant to OAC rule 3745-31-05(A)(3). |

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) and OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

See section A.2.f.

**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** No visible emissions of fugitive dust from the enclosures for the hot aggregate elevator, vibrating screens, and weigh hopper.

**2.c** 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.

**2.d** 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.

**2.e** 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.

**2.f** On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the state regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio State Implementation Plan (SIP).

When the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" will no longer exist as part of the federally-approved SIP for Ohio, and this term and condition will no longer be applicable to this emissions unit.

## B. Operational Restrictions

**1.** The 400,000 tons per year total asphalt production restrictions shall be based on a rolling, 12-month summation of the monthly production rates. This restriction correlates to the annual emission limit for VOC.

The combination of slag and non-slag asphalt production may not cause annual emissions of total $SO_2$ to exceed 24.98 tons based on a rolling, 12-month summation and calculated using the following equation:

T = [(0.36813 lb/ton x S) +(0.044 lb/ton x N)] / 2,000 lbs/ton

where,

T = total annual $SO_2$ emissions in TPY,
0.36813 lb/ton = emission factor for slag mixes,
S = total slag mix produced for each rolling, 12-month period,
0.044 lb/ton = emission factor for non-slag mixes, and
N = total non-slag mix produced for each rolling, 12-month period.

To ensure enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the production levels and emission limits specified in the following table:

| MONTH(s) | MAXIMUM ALLOWABLE CUMULATIVE ASPHALT PRODUCTION | MAXIMUM ALLOWABLE ANNUAL EMISSIONS OF $SO_2$ (TPY) |
|---|---|---|
| 1 | 70,000 | 4.17 |
| 1 - 2 | 140,000 | 8.34 |
| 1 - 3 | 200,000 | 12.51 |
| 1 - 4 | 270,000 | 16.68 |
| 1 - 5 | 340,000 | 20.85 |
| 1 - 6 | 400,000 | 24.98 |
| 1 - 7 | 400,000 | 24.98 |
| 1 - 8 | 400,000 | 24.98 |
| 1 - 9 | 400,000 | 24.98 |
| 1 - 10 | 400,000 | 24.98 |
| 1 - 11 | 400,000 | 24.98 |
| 1 - 12 | 400,000 | 24.98 |

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual production restriction shall be based upon a rolling, 12-month summation of the monthly production rates and compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the monthly emission rates.

**2.** The permittee may substitute recycled asphalt aggregates in the raw material feed mix in amounts not to exceed 50 percent of all aggregate materials introduced at any given time.

**3.** The pressure drop across the baghouse shall be maintained within the range of 1 to 8 inches of water column at all times while the emissions unit is in operation.

**4.** All recycled, used oil burned in emissions unit P901 shall meet the following specifications:

<u>Contaminant/Property Allowable Specifications</u>

| | |
|---|---|
| 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 has demonstrated the used oil does not contain any hazardous waste pursuant to OAC rule 3745-279-63.

**5.** The permittee may not burn any used oil which does not meet the specifications listed in

OAC rule 3745-279-11 without first obtaining an air permit to install that authorizes the burning of such used oil. The burning of used oil that does not meet specifications listed in OAC rule 3745-279-11 is subject to OAC rule 3745-279-60 through 67 and the applicable portions of 40 CFR, Part 761. In addition, if the permittee is burning used oil which exceeds the mercury limitation and falls below the heat content limitation, then this may trigger the requirement to apply for and obtain a permit to install.

**6.** The burning of hazardous waste is prohibited without first complying with all applicable state and federal hazardous waste and air regulations and permits.

**7.** 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:

a. Fuel flow to the burner (for fuel oil and on spec used oil);

b. Differential pressure of the baghouse to ensure proper air flow through the plant;

c. Flue gas analysis (of gases present in the drum and or stack) for CO, $O_2$, $CO_2$, and $NO_x$;

d. Fuel pressure; and

e. For burners that require compressed air for proper operation, correct pressure at the
burner.

**8.** 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.

**9.** 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.

**10.** All number 2 and on-spec used oil burned in this emissions unit shall have a sulfur content equal to or less than 0.5%, by weight.

**11.** All number 4 fuel oil burned in this emissions unit shall have a sulfur content equal to or less than 0.8%, by weight.

**12.** All number 6 fuel oil burned in this emissions unit shall have a sulfur content equal to or less than 1%, by weight.

## C. Monitoring and/or Recordkeeping Requirements

**1.** The permittee shall operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be 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 daily basis.

**2.** The permittee shall maintain daily records of the following:

a. Total slag mix asphalt production, in tons per day.

b. Total non-slag mix asphalt production, in tons per day.

c. Total production hours while producing slag mix, in hours per day.

d. Total production hours while producing non-slag mix, in hours per day.

e. Average hourly slag mix production, in tons per hour (a divided by c).

f. Average hourly non-slag mix production, in tons per hour (b divided by d).

**3.** The permittee shall maintain monthly records of the following information:

a. The total asphalt production rate and slag mix and non-slag mix production rates, in tons per month.

b. Beginning after the first 12 calendar months of operation under the provisions of this permit, the rolling, 12-month summations of the monthly total asphalt

production rate, slag mix and non-slag mix production rates.

Beginning after the first 12 calendar months of operation under the provisions of this permit, the rolling, 12-month summations of the monthly total SO2 emission rates using the equation specified in section B.1. above.

Also, during the first 12 calendar months of operation under the provisions of this permit, the permittee shall record the cumulative total asphalt production rates for each calendar month, as well as the cumulative total SO2 emissions for each calendar month.

**4.** The permittee shall receive a chemical analysis with each shipment of 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. The date of the shipment or delivery;

b. The quantity of used oil received;

c. The Btu value of the used oil, in Btu/gallon;

d. The flash point of the used oil, in Btu/gallon;

e. The arsenic content, in ppm;

f. The cadmium content, in ppm;

g. The chromium content, in ppm;

h. The lead content, in ppm;

i. The PCB content, in ppm;

j. The total halogen content, in ppm; and

k. The mercury content, in ppm.

Each analysis shall be kept in a readily accessible location for at least 5 years and shall be made available to Ohio EPA's Northeast District Office upon verbal or written request. The Director or any authorized representative of the Director may require or

may conduct periodic, detailed chemical analysis through an independent laboratory or 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.

**5.** The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analysis for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by Ohio EPA's Northeast District Office.

**6.** 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 analysis for sulfur content and heat content.

**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. The date of the burner tuning;

b. Results of the evaluation of the operating parameters listed above;

c. A detailed list of adjustments and/or repairs made to bring the operating parameters into conformance with the manufacturer's specifications; and

d. The type of fuel(s) employed during the burner tuning.

**9.** 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 serving 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 Ohio EPA's Northeast 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.

**10.** 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's Northeast District Office or local air agency 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.

**11.** The permit to install for this emissions unit (P901) 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/m$^3$): 1,640

Maximum Hourly Emission Rate (lbs/hr): 3.43

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m$^3$): 4.9
MAGLC (ug/m$^3$): 39,048

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

Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. Changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. Physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

**13.** 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 pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

**2.** The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month asphalt production restriction and emission limitation and for the first 12 calendar months of operation under the provisions of this permit, all exceedances of the maximum allowable emission limit and cumulative asphalt production levels.

**3.** 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 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 of 40 CFR, Part 761, the permittee is subject to that rule and must comply with all applicable provisions of that rule.

**4.** The permittee shall submit burner tuning reports to Ohio EPA's Northeast District Office

that summarize the results of each burner tuning. These reports are due within 30 days of the date that the burner tuning was performed.

**5.** 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; and

c. Describe any corrective actions taken to eliminate the abnormal visible particulate emissions.

**6.** The permittee shall submit deviation (excursion) reports which identify all exceedances of the fuel sulfur content restrictions specified in sections B.10. through B.12.

**7.** Deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

## E. Testing Requirements

**1.** Compliance with the emissions limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:
0.04 gr of PE/dscf of exhaust, 11.15 lbs of PE/hr, and 6.10 TPY of PE

Applicable Compliance Methods:
Compliance with the hourly PE limitation above shall be determined by stack testing as outlined in section E.2. below.

The annual emission limitation was established by multiplying the maximum annual asphalt production rate of 400,000 tons by an emission factor of 0.0305 lb of PE/ton of product (developed using 0.04 gr/dscf) and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with this annual asphalt production rate, compliance with the emission limitation will be assumed. Compliance with the annual asphalt production rate shall be demonstrated by the monitoring and

record keeping in Section C.2.

b. Emission Limitations:
47.45 lbs of CO/hr and 26.00 TPY of CO

Applicable Compliance Methods:
Compliance with the hourly CO emission limitation above shall be determined by stack testing as outlined in section E.2. below.

The annual emission limitation was established by multiplying the maximum annual asphalt production rate of 400,000 tons by an emission factor of 0.1300 lb of CO/ton of product (from AP-42, Table 11.1-7, dated 04/2004) and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with this annual asphalt production rate, compliance with the emission limitation will be assumed. Compliance with the annual asphalt production rate shall be demonstrated by the monitoring and record keeping in Section C.2.

c. Emission Limitations:
20.08 lbs of $NO_x$/hr and 11.00 TPY of $NO_x$

Applicable Compliance Methods:
Compliance with the hourly $NO_x$ emission limitation above shall be determined by stack testing as outlined in section E.2. below.

The annual emission limitation was established by multiplying the maximum annual asphalt production rate of 400,000 tons by an emission factor of 0.0550 lb of $NO_x$/ton of product (from AP-42, Table 11.1-7, dated 04/2004) and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with this annual asphalt production rate, compliance with the emission limitation will be assumed. Compliance with the annual asphalt production rate shall be demonstrated by the monitoring and record keeping in Section C.2.

d. Emission Limitations:
97.55 lbs of $SO_2$/hr (slag mixes), 16.06 lbs of $SO_2$/hr (non-slag mixes) and 24.98 TPY of $SO_2$ as a rolling, 12-month summation

Applicable Compliance Methods:
Compliance with the hourly $SO_2$ emission limitations above shall be determined by stack testing as outlined in section E.2. below.

The annual emission limitation was established by multiplying the predicted annual asphalt production rate for slag mix of 110,000 tons by an emission factor of 0.36813 lb of $SO_2$/ton of product (based on stack testing performed on July 28, 2004) and dividing by 2000 lbs/ton and adding to this the product of multiplying the maximum annual asphalt production rate for non-slag mix of 215,000 tons (when 110,000 tons of slag mix is produced creating worst case scenario) by an emission factor of 0.044 lb of $SO_2$/ton ( based on stack testing performed on August 25, 2004) and dividing by 2000 lbs/ton. Compliance with the annual emission rate shall be demonstrated by the monitoring and record keeping for production specified in Section C.2. and the equation to calculate emissions specified in section B.1.

e. Emission Limitations:
59.13 lbs of VOC/hr and 32.40 TPY of VOC as a rolling, 12-month summation

Applicable Compliance Methods:
Compliance with the hourly VOC emission limitation above shall be determined by stack testing as outlined in section E.2. below.

The annual emission limitation was established by multiplying the maximum annual asphalt production rate for slag mix of 400,000 tons by an emission factor of 0.1620 lb of VOC/ton of product (based on stack testing performed in September 2003) and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with this annual asphalt production rate, compliance with the emission limitation will be assumed. Compliance with the annual asphalt production rate shall be demonstrated by the monitoring and record keeping in Section C.2.

f. Emission Limitation:
Visible emissions from the stack serving this emissions unit shall not exceed 20% opacity, as a six-minute average.

Applicable Compliance Method:
Compliance with the visible emission limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.

g. Emission Limitation:
Emissions of fugitive PE shall not exceed 2.56 TPY

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

((400,000 tons of material/year X 0.0051 lb PE/ton of material) + (376,800 tons of aggregate/year X 0.0069 lb PE/ton of aggregate) + (169,200 tons of sand/year X 0.0021 lb PE/ton of sand)) X (1 ton/2000 pounds) = 2.50 tons of PE

Fugitives emissions from the hot end are calculated as follows

(400,000 tons of asphalt produced X 0.0003 lb of PE/ton of asphalt produced ) X ( 1 ton/2000 pounds) = 0.06 tons of PE.

Total fugitive emissions are therefore 2.56 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)

h. 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 above visible emission limitation shall be determined using Method 22 of 40 CFR, Part 60, Appendix A.

i. 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 with the above visible emission limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A, except that the data reduction and average opacity calculation shall be based upon sets of twelve consecutive visible particulate emissions observations recorded at fifteen-second intervals.

**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 between April 1st and October 31st of 2005. However, if no slag mix is produced within this time period, the testing for SO2 while producing slag mix can be delayed until up to one month after the first batch of slag mix is produced.

b. The emission testing shall be conducted to demonstrate compliance with the following:

   i. 11.15 lbs of PE/hr and 0.04 gr of PE/dscf of exhaust gas

   ii. 47.45 lbs of CO/hr

   iii. 97.55 lbs/hr of $SO_2$ (slag mixes)

   iv. 16.06 lbs/hr of $SO_2$ (non-slag mixes)

   v. 59.13 lbs/hr of VOC

   vi. 20.08 lbs/hr of $NO_x$

c. The following test methods shall be employed to demonstrate compliance with the above emission limitations:

   i. Methods 1 - 4 of 40 CFR, Part 60, Appendix A

   ii. For PE: Method 5, of 40 CFR, Part 60, Appendix A.

   iii. For $SO_2$: Method 6 or 6C, of 40 CFR, Part 60, Appendix A.

   iv. For CO: Method 10, of 40 CFR, Part 60, Appendix A.

   v. For $NO_x$: Method 7 or 7E of 40 CFR, Part 60, Appendix A.

   vi. For VOC: Method 25 of 40 CFR, Part 60, Appendix A.

   The tests shall be conducted while the emissions unit is operating at its maximum capacity unless otherwise specified or approved by Ohio EPA's Northeast District Office.

d. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the times and dates of the tests, and the persons who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the field office's refusal to accept the results of the emissions tests.

e. Personnel from Ohio EPA's Northeast District Office shall be permitted to witness the tests, 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.

f. A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to Ohio EPA's Northeast District Office within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from Ohio EPA's Northeast District Office.

## F. Miscellaneous Requirements

**1.** In accordance with the provisions of OAC rule 3745-31-05, the following special terms and conditions of this permit to install are federally enforceable: A-F.