

Synthetic Minor Determination and/or  Netting Determination

Permit To Install 16-02404

**A. Source Description**

Allied Corporation Plant 75, a batch-mix hot mix asphalt plant, with a 300 TPH maximum design capacity, located in Kent, Portage County, OH, is modifying operations to expand the choice of fuels that can be burned. The expanded choice of fuels will include on-spec used oil, as primary fuel, and the following secondary fuels: natural gas (the sole allowable fuel burned before final issuance of PTI #16-02404), virgin #2 fuel oil, virgin #4 fuel oil, and virgin #6 fuel oil.

**B. Facility Emissions and Attainment Status**

After implementation of the proposed operations modification described above, unrestricted facility emissions of carbon monoxide (CO), volatile organic compounds (VOCs), and sulfur dioxide (SO<sub>2</sub>) have the potential to exceed both moderate nonattainment and Title V major stationary source threshold levels. With no other changes, the facility will remain a natural minor source of 10-micrometer aerodynamic diameter particulate matter (PM-10), nitrogen oxides (NO<sub>x</sub>), and hazardous air pollutants (HAPs). Portage County is moderate nonattainment for 8-hour ozone.

**C. Source Emissions**

The facility has opted for synthetic minor status to stay out of both moderate nonattainment and Title V programs using federally enforceable asphalt production restrictions of 400,000 tons per year, based upon a rolling, 12-month basis, thereby limiting annual (based upon a rolling, 12-month basis) potential stack emissions of CO to 54 tons per year, VOC to 28 tons per year, and SO<sub>2</sub> to 64 tons per year.

**D. Conclusion**

If there are no deviations from the operational procedures, equipment specifications, or any other associated parameters, as stated in the application, that imperil the effectiveness of the synthetic minor strategy, then ensuring no exceedances of the federally enforceable asphalt production restriction for the facility via diligent evaluation, monitoring and record keeping should be sufficient to keep the facility out of both moderate nonattainment and Title V programs.



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL  
PORTAGE COUNTY**

**CERTIFIED MAIL**

Street Address:

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

Mailing Address:

Lazarus Gov.  
Center

**Application No:** 16-02404

**Fac ID:** 1667040041

**DATE:** 5/17/2005

Allied Corp Plant 75  
Beth Mowrey  
PO Box 266  
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.

Sincerely,

*Michael W. Ahern*

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

CC: USEPA

ARAQMD

Akron Metro Area Trans. Study

WV

PA

**PORTAGE COUNTY**

**PUBLIC NOTICE**

**ISSUANCE OF DRAFT PERMIT TO INSTALL  
16-02404 FOR AN AIR CONTAMINANT SOURCE FOR Allied Corp Plant 75**

On 5/17/2005 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Allied Corp Plant 75**, located at **1234 Boel Dr, Kent, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 16-02404:

**Modification to Existing Plant, Alternative Fuels, Synthetic Minor Strategy. Replaces PTI 16-00677 Issued Final 8/10/88.**

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Lynn Malcolm, Akron Regional Air Quality Management District, 146 South High Street, Room 904, Akron, OH 44308 [(330)375-2480]



**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 16-02404**

Application Number: 16-02404  
Facility ID: 1667040041  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: Allied Corp Plant 75  
Person to Contact: Beth Mowrey  
Address: PO Box 266  
Thornville, OH 43076

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**1234 Boel Dr  
Kent, Ohio**

Description of proposed emissions unit(s):  
**Modification to Existing Plant, Alternative Fuels, Synthetic Minor Strategy. Replaces PTI 16-00677 Issued Final 8/10/88.**

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

Allied Corp Plant 75

Facility ID: 1667040041

PTI Application: 16-02404

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 recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**3. Records Retention Requirements**

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

**4. Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any

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

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**

| <u>Pollutant</u> | <u>Tons Per Year</u> |
|------------------|----------------------|
| CO               | 54 (stack)           |
| CO               | 0.51 (fugitive)      |
| NO <sub>x</sub>  | 11 (stack)           |
| VOCs             | 28 (stack)           |
| VOCs             | 3.2 (fugitive)       |
| SO <sub>2</sub>  | 64 (stack)           |
| PE               | 5.0 (stack)          |
| PE               | 14 (fugitive)        |

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

**A. Applicable Emissions Limitations and/or Control Requirements**

Issued: To be entered upon final issuance

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

| <u>Operations, Property, and/or Equipment</u>   |  | <u>Applicable Rules/Requirements</u> |
|---|--|--------------------------------------|
| <p>P902 ("Plant 75", manufactured and installed 1988) batch-mix hot mix asphalt (HMA) plant, 300 TPH maximum design capacity, particulate emissions (PE) controlled by settling chamber and baghouse, air emissions of carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), and volatile organic compounds (VOCs) uncontrolled.</p>   | <p>thus avoiding Title V and moderate nonattainment program requirements, the permittee requested federally enforceable asphalt production restrictions to limit the potential to emit CO, SO<sub>2</sub>, and VOCs below major source thresholds. With no other changes, this facility remains an unrestricted natural minor source of all other criteria pollutants and hazardous air pollutants (HAPs).</p> | <p>OAC rule 3745-31-05(A)(3)</p>     |
| <p><b><u>MODIFICATION:</u></b> P902, originally permitted in PTI 16-677 (issued final 08/10/88) to burn only natural gas, will be modified per the requirements of PTI 16-02404, which supersede all of the requirements of PTI 16-677, to also burn alternative fuels including: on-spec used oil and #2, #4, and #6 virgin fuel oils. The permittee has designated on-spec used oil as primary fuel and natural gas and #2, #4, and #6 virgin fuel oils as secondary fuels. Emission limitations will be updated to reflect use of fuels approved for burning in P902 and results obtained from Ohio EPA-sanctioned site-specific emissions testing of P902, conducted on 08/17/04, burning on-spec used oil.</p> |  |                                      |
| <p>In order to maintain this facility as a minor source of all criteria pollutants,</p>   |  |                                      |

Emissions Unit ID: P902

Applicable Emissions  
Limitations/Control Measures

|   |   |
|---|---|
|   | <p>Stack emissions from burning on-spec used oil shall not exceed the following limitations:</p> <p>81 lbs/hr of CO;<br/>                 11 lbs/hr of NO<sub>x</sub>;<br/>                 42 lbs/hr of VOCs; and<br/>                 29 lbs/hr of SO<sub>2</sub>.</p> <p>Stack emissions from burning natural gas shall not exceed the following limitations:</p> <p>34 lbs/hr of CO;<br/>                 7.6 lbs/hr of NO<sub>x</sub>;<br/>                 2.5 lbs/hr of VOCs; and<br/>                 1.4 lbs/hr of SO<sub>2</sub>.</p> <p>Stack emissions from burning virgin #2 fuel oil shall not exceed the following limitations:</p> <p>36 lbs/hr of CO;<br/>                 14 lbs/hr of NO<sub>x</sub>;<br/>                 2.5 lbs/hr of VOCs; and<br/>                 48 lbs/hr of SO<sub>2</sub>.</p> <p>Stack emissions from burning virgin #4 fuel oil shall not exceed the following limitations:</p> <p>40 lbs/hr of CO;<br/>                 17 lbs/hr of NO<sub>x</sub>;<br/>                 11 lbs/hr of VOCs; and<br/>                 77 lbs/hr of SO<sub>2</sub>.</p> <p>Stack emissions from burning virgin #6 fuel oil shall not exceed the following limitations:</p> <p>40 lbs/hr of CO;</p> |
| <p>OAC rule 3745-17-07(A)(1)<br/>                 OAC rule 3745-17-11(B)(1)<br/>                 OAC rule 3745-17-07(B)<br/>                 OAC rule 3745-17-08<br/>                 OAC rule 3745-18-06(E)<br/>                 40 CFR Part 60, Subpart I</p> |   |
| <p>OAC rule 3745-21-07(B)<br/>                 OAC rule 3745-21-08(B)</p>   |   |
| <p>OAC rule 3745-23-06(B)</p>   |   |
| <p>OAC rule 3745-31-05(C)<br/>                 (to avoid moderate nonattainment program requirements);</p>  |   |
| <p>OAC rule 3745-35-07(B)<br/>                 (to avoid Title V program requirements)</p>  |   |

**Allied  
PTI A**

Emissions Unit ID: **P902**

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

17 lbs/hr of NO<sub>x</sub>;  
11 lbs/hr of VOCs; and  
96 lbs/hr of SO<sub>2</sub>.

conveyors and all transfer points to the dryer.

PE: 5.0 14

Stack PE from burning any approved fuel in this permit shall not exceed 0.030 gr/dscf.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(B), OAC rule 3745-21-08(B), OAC rule 3745-23-06(B), and OAC rule 3745-31-05(C).

Visible stack PE shall not exceed 20% opacity, as a 3-minute average.

Arsenic, cadmium, chromium, and lead emissions are limited by the fuel specifications in A.2.b below.

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

The permittee shall ensure that the baghouse is operated with sufficient air volume to minimize or eliminate visible fugitive emissions from the rotary dryer.

See A.2.c below.

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

See A.2.d below.

Visible emissions of fugitive dust (from areas other than the enclosures for the hot aggregate elevator, vibrating screens, and weigh hopper) shall not exceed 10% opacity, as a 3-minute average.

Emissions, in tons/year (TPY), from burning any fuel approved in this permit shall not exceed the following limitations (based upon a rolling, 12-month summation of the monthly emissions, per the federally enforceable asphalt production restrictions of B.5):

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.

|                   | <u>Stack (TPY)</u><br>(TPY) | <u>Fugitive</u> |
|-------------------|-----------------------------|-----------------|
| CO:               | 54                          | 0.51            |
| NO <sub>x</sub> : | 11                          | --              |
| VOCs:             | 28                          | 3.2             |
| SO <sub>2</sub> : | 64                          | --              |

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

## 2. Additional Terms and Conditions

- 2.a** The CO, NO<sub>x</sub>, and VOC stack emission limits established pursuant to OAC rule 3745-31-05(A)(3) reflect the potential to emit for this emissions unit. In addition, the SO<sub>2</sub> and PE stack emission limits established pursuant to OAC rule 3745-31-05(A)(3) are greater than the potential to emit for this emissions unit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure ongoing compliance with these emission limits.

However, the permittee shall apply for and, if required, obtain a final permit to install prior to equipment replacement or any change, such as with the method of operation, the types of fuels burned, and/or equipment modification, that would increase the potential to emit for any air pollutant.

- 2.b** All used oil burned in this emissions unit 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 |
| sulfur content | 0.5% by weight, maximum     |

\*If the permittee is burning used oil with any quantifiable level (2 ppm or greater) of PCB's, then the permittee is subject to the notification requirements of 40 CFR 279.62.

\*\*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 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 used oil does not contain any hazardous waste.

- 2.c** The permittee satisfies the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-21-07(B), respectively, by complying with the best available technology requirements of OAC rule 3745-31-05(A)(3).

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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's State Implementation Plan (SIP). Therefore, until 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" still exists as part of the federally-approved SIP for Ohio.

- 2.d** The design of the emissions unit and technology associated with the current operating practices will satisfy the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06.

On February 15, 2005, OAC rule 3745-23-06 was rescinded and therefore is no longer a part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-23-06, the requirement to satisfy "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.e** In addition to the on-spec used oil specified above in A.2.b, only the following oils shall be burned in this emissions unit:

Virgin #2 fuel oil containing no more than 0.5% by weight sulfur;  
Virgin #4 fuel oil containing no more than 0.8% by weight sulfur; and  
Virgin #6 fuel oil containing no more than 1% by weight sulfur.

- 2.f** The permittee shall properly install (or have properly installed), adjust, operate, and maintain a baghouse to serve this emissions unit, including enclosures, ductwork, fans, and any other equipment necessary to capture, contain, and vent particulate emissions to the baghouse serving this emissions unit, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.
- 2.g** The permittee shall operate and maintain the fuel burners in accordance with the manufacturer's recommendations to ensure efficient combustion of the fuel(s) and to ensure compliance with the applicable emission limitations for VOC, CO and NO<sub>x</sub>.
- 2.h** 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. The baghouse and associated control equipment serving this emissions unit shall be employed all times the emissions unit is in operation.
2. Except for an initial operating period after filter media replacement to attain design filtering efficiency, the pressure drop across the baghouse serving this emissions unit shall be maintained within the range of 1 to 8 inches of water, while the emissions unit is in operation.
3. No fuels, other than natural gas and the oils specified above, shall be burned in this emissions unit. In order to use an approved fuel on an ongoing basis, the permittee shall complete the emissions testing for that fuel per term and condition E.1.
4. Used oil that does not meet the specifications listed in A.2.b is off-specification used oil. The permittee shall not receive or burn any off-specification used oil. The burning of off-specification used oil is subject to OAC rule 3745-279-60 through 67.
5. The maximum annual asphalt production for this emissions unit shall not exceed 400,000 tons per year, based upon a rolling, 12-month summation of the asphalt production. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the production levels specified in the following table:

| <u>Month(s)</u> | <u>Maximum Allowable Cumulative<br/>Tons of Hot Mix Asphalt Produced</u> |
|-----------------|--|
| 1               | 100,000  |
| 1-2             | 200,000  |
| 1-3             | 300,000  |
| 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 issuance of this permit, compliance with the annual production limitation shall be based upon a rolling, 12-month summation of the asphalt production.

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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.

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

1. The permittee shall document all times the baghouse and/or associated control equipment serving this emissions unit were/was not employed when the emissions unit was in operation.
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 a daily basis.
3. The permittee shall maintain fuel receipts from the fuel supplier listing the ASTM D396-78 specifications, including fuel oil number, heat content, and weight percent sulfur content, and total quantity of each shipment of virgin fuel oil received.
4. The permittee shall receive a chemical analysis with each shipment of used oil from the supplier. Each chemical analysis shall include: identification of the name and address of the used oil supplier; the used oil supplier's USEPA identification number; a copy of the dated original independent testing laboratory's report which identifies the test methods employed to determine the used oil contaminant levels/physical properties listed below; and other used oil information listed below:
  - a. the shipment or delivery date;
  - b. the quantity received;
  - c. the Btu value;
  - d. the flash point;
  - 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;
  - k. the mercury content, in ppm; and
  - l. the sulfur content, in weight percent.

The metal contents for arsenic, cadmium, chromium, lead, and mercury shall be analyzed using a "Totals Analysis" or "Total Metals" testing methodology. Chapter Two of "Testing Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846)" should be referred to for

**Allied Corp Plant 75****PTI Application: 16-02404****Issued****Facility ID: 1667040041**Emissions Unit ID: **P902**

selecting appropriate test methods for the used oil analyses. Under no circumstances shall the metal contents of the used oil be analyzed using "TCLP", "EP-TOX", or other similar testing procedures, since these tests were developed to gauge leachate mobility from a landfill, of which is an irrelevant property of the used oil burned for energy recovery.

Each analysis shall be kept in a readily accessible location for at least 5 years and shall be made available to the Director (the appropriate Ohio EPA District or local air agency) upon verbal or written request. The Director or any authorized representative of the Director may require or 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.

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

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- a. the monthly asphalt production rate for each month;
  - b. the rolling, 12-month summation of monthly asphalt production rates;
  - c. the monthly stack emissions (tons) for each of CO, NO<sub>x</sub>, VOCs, SO<sub>2</sub>, and PE;
  - d. the monthly fugitive emissions (tons) for each of CO, NO<sub>x</sub>, VOCs, SO<sub>2</sub>, and PE (if applicable);
  - e. the rolling, 12-month summation of monthly stack emissions (tons) for each of CO, NO<sub>x</sub>, VOCs, PE, and SO<sub>2</sub>;
  - f. the rolling, 12-month summation of monthly fugitive emissions (tons) for each of CO, NO<sub>x</sub>, VOCs, PE, and SO<sub>2</sub> (if applicable); and
  - g. the maximum percentage of RAP used for any mix.
6. The permittee shall perform daily visible emission checks, when the emissions unit is in operation and when weather conditions allow, for any abnormal (above the allowable) visible particulate emissions from the baghouse servicing this emissions unit. If abnormal visible particulate emissions are observed, the permittee shall note the following in the operation log:
- a. the color of the visible emissions;
  - b. the cause of the visible emissions;
  - c. the total duration of the visible emission incident; and
  - d. corrective actions taken to correct the excess visible particulate emissions.
7. The permittee shall perform daily visible emission checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the hot aggregate elevator, vibrating screens, weigh hopper, the aggregate storage bins, the rotary drum and cold aggregate elevator/conveyor serving this emissions unit. If visible emissions are observed, the permittee shall note the following in the operation log:
- a. the location and color of the visible emissions;
  - b. the cause of the visible particulate emissions;
  - c. the total duration of any visible emissions incident; and
  - d. any corrective actions taken to minimize or eliminate the visible emissions.
8. While performing each burner tuning, the permittee shall record the results of the burner tuning using the *Burner Tuning Reporting Form for Asphalt Concrete Plants* form (as found in term F.1). An alternative form may be used upon approval of the appropriate Ohio EPA District Office or local air agency.
9. The permit to install for this emissions unit 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 to this emissions unit for each toxic pollutant, using data

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from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Heptane

TLV (mg/m<sup>3</sup>): 1,640

Maximum Hourly Emission Rate (lbs/hr): 2.82

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 388.5

MAGLC (ug/m<sup>3</sup>): 39,048

10. 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 or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
  - 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

11. The permittee shall collect, record, and retain the following information when it conducts

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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 notify the Director (the appropriate District Office or local air agency) in writing of any record in which the baghouse and/or associated control equipment serving this emissions unit was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.
2. 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 I- General Terms and Condition of this permit under section (A)(2).
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the virgin oil and used oil sulfur content limits specified above. These reports are due by the date described in Part I- General Terms and Condition of this permit under section (A)(2).
4. The permittee shall notify the US EPA and the Ohio EPA if any of the used oil received exceeds the on-spec used oil specifications found in OAC rule 3745-279-11. If the permittee is burning 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.
5. 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 I- General Terms and Condition of this permit under section (A)(2).
6. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling 12-month asphalt production restriction. These reports are due by the date described in Part I- General Terms and Conditions of this permit under section (A)(2).

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7. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month total PE, SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO emission limitations. These reports are due by the dates described in Part I - General Terms and Conditions of this permit under section (A)(2).
8. The permittee shall submit semiannual written deviation (excursion) reports that (a) identify all days during which any abnormal (above the allowable) visible particulate emissions were observed from the stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the abnormal visible particulate emissions. These reports shall be submitted to the Ohio EPA district office or local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.
9. The permittee shall submit semiannual written deviation (excursion) reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the hot aggregate elevator, vibrating screens, weigh hopper, the aggregate storage bins, the rotary drum and cold aggregate elevator/conveyor serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA district office or local air agency by January 31 and July 31 of each year and shall cover the previous 6-month period.
10. The permittee shall submit a copy of the *Burner Tuning Reporting Form for Asphalt Concrete Plants* form to the appropriate Ohio EPA district office or local air agency to summarize the results of each burner tuning procedure. These reports shall be submitted to the Ohio EPA district office or local air agency by January 31 of each year and shall cover the previous calendar year.
11. 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> |
|----------------------|---------------------------|----------------------------------|
| P902                 | 300 ton/hr asphalt plant  | Subpart I                        |

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

Pursuant to NSPS, the source owner/operator is hereby advised of the requirement to report, if not previously done so, 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 the Ohio EPA District Office or local air agency responsible for the

permitting of the facility.

## E. Testing Requirements

1. The permittee shall conduct, or have conducted, emissions testing for any approved fuel allowed by this permit to be burned in P902 in accordance with the following requirements:
  - a. The emissions testing shall be conducted within 60 days after achieving the maximum production rate for the primary fuel, but no later than 120 days after initial startup of the emissions unit. Emissions testing for each secondary fuel shall be conducted within 60 days after the switch to the secondary fuel.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE, VOC, CO, NO<sub>x</sub> and SO<sub>2</sub>, or, if necessary, to establish site-specific, potential stack emissions for PE, VOC, CO, NO<sub>x</sub> and SO<sub>2</sub>.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rates for PE, VOC, CO, NO<sub>x</sub> and SO<sub>2</sub>, or, if necessary, to establish site-specific, potential stack emissions for PE, VOC, CO, NO<sub>x</sub> and SO<sub>2</sub>:

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

NO<sub>x</sub>, Methods 1-4 and 7 or 7E of 40 CFR Part 60, Appendix A.

SO<sub>2</sub>, Methods 1-4 and 6 or 6C of 40 CFR Part 60, Appendix A

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

VOC, Methods 1-4 and 25 and/or 18 of 40 CFR Part 60, Appendix A

The VOC pounds per hour emission rate observed during the emissions test shall be calculated in accordance with OAC 3745-21-10(C)(7) where the average molecular weight of the VOC emissions equals 16. i.e., the VOC as carbon emission rate observed during testing shall be converted to the appropriate units by multiplying the VOC as carbon emission rate observed during testing by 16 and dividing by 12. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

- d. The test(s) shall be conducted while this emissions unit is operating at or near its maximum capacity and burning natural gas, virgin number 2 fuel oil, virgin number 4 fuel oil, virgin number 6 fuel oil, or on-spec used oil for PE, VOC, CO, NO<sub>x</sub>, and SO<sub>2</sub>, and employing RAP to verify VOC emissions, unless otherwise specified or approved by the Ohio EPA District Office or 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 Ohio EPA District Office or 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),

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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 District Office or local air agency's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA District Office or 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 Ohio EPA District Office or 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 Ohio EPA District Office or local air agency.

2. 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: Stack emissions from burning on-spec used oil shall not exceed the following limitations:

81 lbs/hr of CO;  
11 lbs/hr of NO<sub>x</sub>;  
42 lbs/hr of VOCs;  
29 lbs/hr of SO<sub>2</sub>; and  
0.030 gr/dscf of PE.

Applicable Compliance Method: On-spec used oil is designated by the permittee as the primary fuel for this emissions unit. A Director's Exemption was granted to stack test with on-spec used oil, prior to the final issuance of Permit to Install (PTI) #16-02404, in order to establish site-specific, potential stack emissions, when burning on-spec used oil. The emission results of the stack testing, which was conducted on August 17, 2004, represent the above allowable mass emission rates for CO, NO<sub>x</sub>, VOCs, SO<sub>2</sub>, and PE when burning on-spec used oil, as established pursuant to OAC rule 3745-31-05(A)(3) in PTI #16-02404. If, when burning on-spec used oil, compliance with the above emission limits is suspect, then the permittee shall conduct emissions testing for this emissions unit, in accordance with the applicable requirements of E.1, to reestablish potential stack emissions when burning on-spec used oil.

- b. Emission Limitations: Stack emissions from burning natural gas shall not exceed

the following limitations:

34 lbs/hr of CO;  
7.6 lbs/hr of NO<sub>x</sub>;  
2.5 lbs/hr of VOCs;  
1.4 lbs/hr of SO<sub>2</sub>; and  
0.030 gr/dscf of PE.

Note: NO<sub>x</sub>, and CO emissions based on Ohio EPA-supplied "STARJET EXPECTED EMISSIONS" April 19, 2005 document and a maximum process weight rate of 282 tons of aggregate/hour; SO<sub>2</sub> emissions based on AP-42 5th Edition, Table 11.1-5 (03/04) and a maximum process weight rate of 300 tons of HMA produced/hour; VOC emissions based on AP-42 5th Edition, Table 11.1-6 (03/04) and a maximum process weight rate of 300 tons of HMA produced/hour; and PE emissions based on best available technology (BAT) baghouse outlet loading requirement common to similar sources in Ohio.

Applicable Compliance Method: Natural gas is designated by the permittee as a secondary fuel for this emissions unit and, as such, is not intended to be used on an on-going basis. If, when burning natural gas, compliance with the above emission limits is suspect or use of natural gas is switched to an on-going basis, then the permittee shall conduct emissions testing for this emissions unit in accordance with the applicable requirements of E.1.

- c. Emission Limitations: Stack emissions from burning virgin #2 fuel oil shall not exceed the following limitations:

36 lbs/hr of CO;  
14 lbs/hr of NO<sub>x</sub>;  
2.5 lbs/hr of VOCs;  
48 lbs/hr of SO<sub>2</sub>; and  
0.030 gr/dscf of PE.

Note: NO<sub>x</sub>, CO, and SO<sub>2</sub> emissions based on Ohio EPA-supplied "STARJET EXPECTED EMISSIONS" April 19, 2005 document and a maximum process weight rate of 282 tons of aggregate/hour, and a maximum fuel sulfur content of 0.5% by weight; VOC emissions based on AP-42 5th Edition, Table 11.1-6 (03/04) and a maximum process weight rate of 300 tons of HMA produced/hour; and PE emissions based on best available technology (BAT) baghouse outlet loading requirement common to similar sources in Ohio.

Applicable Compliance Method: Virgin #2 fuel oil is designated by the permittee as a secondary fuel for this emissions unit and, as such, is not intended to be used on an on-going basis. If, when burning virgin #2 fuel oil, compliance with the above emission limits is suspect or use of virgin #2 fuel oil is switched to an on-going basis, then the permittee shall conduct emissions testing for this emissions unit in accordance with the applicable requirements of E.1.

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- d. Emission Limitations: Stack emissions from burning virgin #4 fuel oil shall not exceed the following limitations:

40 lbs/hr of CO;  
17 lbs/hr of NO<sub>x</sub>;  
11 lbs/hr of VOCs;  
77 lbs/hr of SO<sub>2</sub>; and  
0.030 gr/dscf of PE.

Note: NO<sub>x</sub>, CO, and SO<sub>2</sub> emissions based on Ohio EPA-supplied "STARJET EXPECTED EMISSIONS" April 19, 2005 document, a maximum process weight rate of 282 tons of aggregate/hour, and a maximum fuel sulfur content of 0.8% by weight; VOC emissions based on AP-42 5th Edition, Table 11.1-6 (03/04) and a maximum process weight rate of 300 tons of HMA produced/hour; and PE emissions based on best available technology (BAT) baghouse outlet loading requirement common to similar sources in Ohio.

Applicable Compliance Method: Virgin #4 fuel oil is designated by the permittee as a secondary fuel for this emissions unit and, as such, is not intended to be used on an on-going basis. If, when burning virgin #4 fuel oil, compliance with the above emission limits is suspect or use of virgin #4 fuel oil is switched to an on-going basis, then the permittee shall conduct emissions testing for this emissions unit in accordance with the applicable requirements of E.1.

- e. Emission Limitations: Stack emissions from burning virgin #6 fuel oil shall not exceed the following limitations:

40 lbs/hr of CO;  
17 lbs/hr of NO<sub>x</sub>;  
11 lbs/hr of VOCs;  
96 lbs/hr of SO<sub>2</sub>; and  
0.030 gr/dscf of PE.

Note: NO<sub>x</sub>, CO, and SO<sub>2</sub> emissions based on Ohio EPA-supplied "STARJET EXPECTED EMISSIONS" April 19, 2005 document (NO<sub>x</sub> and CO emission factors assumed the same for virgin #4 and virgin #6 fuel oils), a maximum process weight rate of 282 tons of aggregate/hour, and a maximum fuel sulfur content of 1.0% by weight; VOC emissions based on AP-42 5th Edition, Table 11.1-6 (03/04) and a maximum process weight rate of 300 tons of HMA produced/hour; and PE emissions based on best available technology (BAT) baghouse outlet loading requirement common to similar sources in Ohio.

Applicable Compliance Method: Virgin #6 fuel oil is designated by the permittee as a secondary fuel for this emissions unit and, as such, is not intended to be used on an on-going basis. If, when burning virgin #6 fuel oil, compliance with the above emission limits is suspect or use of virgin #6 fuel oil is switched to an on-going basis, then the permittee shall conduct emissions testing for this emissions unit in accordance with the applicable requirements of E.1.

- f. Emissions Limitation: Stack PE shall not exceed 5.0 tons per rolling, 12-month period, when burning any approved fuel in this permit.

Applicable Compliance Method: Compliance with the annual emissions limitation shall be determined by multiplying 0.025 lb PE/ton of HMA produced [AP-42 5th Edition, Table 11.1-1 (03/04)], by the actual rolling, 12-month summation of HMA produced, in tons per rolling, 12-month period (as derived from the records required by term and condition C.5 above), and dividing by 2000.

- g. Emission Limitation: Stack VOC emissions shall not exceed 28 tons per rolling, 12-month period, when burning on-spec used oil (this fuel produces the highest potential VOC emissions of any approved fuel in this permit).

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 HMA produced, by the actual rolling, 12-month summation of HMA produced, in tons per rolling 12-month period (as derived from the records required by term and condition C.5 above), and dividing by 2000.

- h. Emission Limitation: Stack CO emissions shall not exceed 54 tons per rolling, 12-month period, when burning on-spec used oil (this fuel produces the highest potential CO emissions of any approved fuel in this permit).

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 HMA produced, by the actual rolling, 12-month summation of HMA produced, in tons per rolling, 12-month period (as derived from the records required by term and condition C.5 above), and dividing by 2000.

- i. Emission Limitation: Stack SO<sub>2</sub> emissions shall not exceed 64 tons per rolling, 12-month period, when burning virgin #6 fuel oil (this fuel produces the highest potential SO<sub>2</sub> emissions of any approved fuel in this permit).

Applicable Compliance Method: Compliance with the annual emissions limitation shall be determined by multiplying 0.17 lb SO<sub>2</sub>/ton of aggregate [Ohio EPA-supplied "STARJET EXPECTED EMISSIONS" April 19, 2005 document], by the actual rolling,

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12-month summation of HMA produced, in tons per rolling, 12-month period (as derived from the records required by term and condition C.5 above), by 0.94 [conversion from ton of HMA to ton of aggregate], by 2.0 [conversion from virgin # 2 fuel oil with 0.5% sulfur content, by weight, to virgin # 6 fuel oil with 1.0% sulfur content, by weight], and dividing by 2000.

- j. Emission Limitation: Stack NO<sub>x</sub> emissions shall not exceed 11 tons per rolling, 12-month period, when burning virgin # 4 and/or virgin #6 fuel oils (these fuels, assumed to have the same NO<sub>x</sub> emission factor, produce the highest potential NO<sub>x</sub> emissions of any approved fuel in this permit).

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Applicable Compliance Method: Compliance with the annual emissions limitation shall be determined by multiplying 0.061 lb NO<sub>x</sub>/ton of aggregate [Ohio EPA-supplied "STARJET EXPECTED EMISSIONS" April 19, 2005 document], by the actual rolling, 12-month summation of HMA produced, in tons per rolling, 12-month period (as derived from the records required by term and condition C.5 above), by 0.94 [conversion from ton of HMA to ton of aggregate], and dividing by 2000.

- k. 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, chromium, and lead shall be demonstrated by the monitoring and record keeping in Section C.4 of this permit.

- l. Emission Limitation: Visible particulate emissions from the stack shall not exceed 20% 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, 2002 and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

- m. Emission Limitation: No visible emissions of fugitive dust from the enclosures for the hot aggregate elevator, vibrating screens, the rotary drum 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.6. If required, compliance shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR Part 60, Standards of Performance for New Stationary Sources, as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

- n. Emission Limitation: Visible emissions of fugitive dust (from areas other than the enclosures for the hot aggregate elevator, vibrating screens, the rotary drum 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, 2002, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

- o. Emissions Limitation: Fugitive PE from the emissions unit shall not exceed 14 tons per rolling, 12-month year.

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Applicable Compliance Method: The above emissions limitation is based upon the synthetic minor potential to emit strategy per the company-requested federally enforceable production restriction and emissions data from AP-42 5th Edition, Table 11.19.2-2 (08/04), for the cold side material handling operations, and Table 11.1-14 (03/04) for the hot side load-out and silo filling operations, as demonstrated below:

$$E = [A(S + TN + C) + P(L + F)](1 \text{ ton}/2000 \text{ pounds})$$

Where:

$E = 14$  tons of fugitive PE per rolling, 12-month year [synthetic minor potential to emit];

Cold Side Material Handling Operations:

$A = 376,000$  tons of sand/aggregate per rolling, 12-month year [federally enforceable production restriction, excluding the asphalt cement];

$S = 0.025$  pound/ton of production [screening emissions];

$T = 0.0030$  pound/ton of production/transfer point [emissions per material transfer point];

$N = 16$  [the number of material transfer points]; and

$C = 0.000016$  pound/ton of production [cold feed loading emissions].

Hot Side Load-out and Silo Filling Operations:

$P = 400,000$  tons of asphalt per rolling, 12-month year [federally enforceable production restriction];

$L = 0.0005194$  pound/ton of production [load-out emissions]; and

$F = 0.000584$  pound/ton of production [silo filling emissions].

- p. Fugitive emissions from the hot side (hot mix asphalt (HMA) load-out and silo filling) are calculated as follows:

Asphalt plant silo filling and plant load-out emissions from AP-42, Table 11.1-14 dated 3/2004

Known:

V = -0.5 Asphalt volatility factor (default)

T = 325 HMA mix temp (F) (default)

For silo filling, 1.4% of TOC is not VOC

AP-42 Table 11.1-16 dated 3/2004

For plant load-out, 7.3% of TOC is not VOC

AP-42 Table 11.1-16 dated 3/2004

| <u>Activity</u> | <u>Pollutant</u> | <u>Predictive Emission Factor Equation, lb/ton</u>             |
|-----------------|------------------|--|
| Silo filling    | PE               | $EF=0.000332+0.00105(-V)e^{((0.0251)(T+460)-20.43)}$           |
| Load-out        | PE               | $EF=0.000181+0.00141(-V)e^{((0.0251)(T+460)-20.43)}$           |
| Silo filling    | VOC              | $EF= [0.0504(-V)e^{((0.0251)(T+460)-20.43)}] \times (1-0.014)$ |
| Load-out        | VOC              | $EF= [0.0172(-V)e^{((0.0251)(T+460)-20.43)}] \times (1-0.073)$ |
| Silo filling    | CO               | $EF=0.00488(-V)e^{((0.0251)(T+460)-20.43)}$                    |
| Load-out        | CO               | $EF=0.00558(-V)e^{((0.0251)(T+460)-20.43)}$                    |

Based on the above information, the emission factors and emissions are as follows.

| <u>Activity</u> | <u>Pollutant</u> | <u>lb/ton</u>         | <u>tons/yr (at 400,000 tons/yr production)</u> |
|-----------------|------------------|-----------------------|--|
| Silo filling    | PE               | $5.86 \times 10^{-4}$ | 0.12   |
| Load-out        | PE               | $5.22 \times 10^{-4}$ | 0.10   |
| Silo filling    | VOC              | $1.20 \times 10^{-2}$ | 2.4  |
| Load-out        | VOC              | $3.86 \times 10^{-3}$ | 0.78   |
| Silo filling    | CO               | $1.18 \times 10^{-3}$ | 0.24   |
| Load-out        | CO               | $1.35 \times 10^{-3}$ | 0.27   |

### 3. Burner Tuning

#### a. Introduction

The permittee is required to conduct periodic tuning of the asphalt plant burner. The purpose of this tuning is to ensure that the burner is adjusted properly so that air pollution emissions remain in compliance with allowable emissions rates and are minimized.

- b. Qualifications for Burner Tuning Technicians who conduct the burner tuning must be qualified to perform the expected tasks. The permittee is required to provide training to the technicians who perform the burner tuning procedure. Technicians who are qualified shall, at a minimum, have passed manufacturer's training concerning burner tuning, or have been trained by someone who has completed the manufacturer's training concerning burner tuning.

#### c. Portable Monitor Requirements

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The permittee shall properly operate and maintain portable device(s) to monitor the concentration of NO<sub>x</sub>, VOC, O<sub>2</sub> and CO in the stack exhaust gases from this emissions unit. The monitor(s) shall be capable of measuring the expected concentrations of the measured gases. 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.

## d. Burner Tuning Procedure

The first steps concerning burner tuning involve setting the pollutant baseline levels (concentrations) utilizing the portable monitor. These baselines shall be set during the initial U.S. EPA approved emissions testing that demonstrated the emissions unit was in compliance with all applicable emissions limitations as described in term E.1.a. The baselines shall be determined for VOC, NO<sub>x</sub>, and CO. Sampling should measure the exhaust gas values exiting the baghouse. The duration of each sample shall follow the portable monitor manufacture's recommendations. Record these values on the *Burner Tuning Reporting Form for Asphalt Concrete Plants* form (as found in Section F.2) in the "Recent Stack Test Basis Values" column.

Once the pollutant baseline levels are set, the burner shall be next tuned based on the frequency described in Section E.2.e. The general procedure for tuning the burner involves the following steps:

- i. Review the plant operations to ensure the plant is operating normally.
- ii. Confirm that the portable monitor is calibrated per the manufacture's specifications.
- iii. Using the calibrated monitor and the monitor manufacturer's recommended sampling duration, measure the stack exhaust gas values for VOC, NO<sub>x</sub>, and CO. These measurements shall be taken at the same location as the location where the baseline samples were taken. Record the values in the "Pre Tuning" results column on the *Burner Tuning Reporting Form for Asphalt Concrete Plants* form.
- iv. Compare the measured stack exhaust gas values with the pollutant baseline values. If all of the measured stack exhaust gas values are equal to or less than 115 percent of the pollutant baseline values, then it is not necessary to tune the burner. Go on to Section v. below.

The permittee shall have the burners tuned within two calendar weeks of any

measured stack exhaust values greater than 115 percent of the baseline values. Make any necessary adjustments and repairs. Repeat Sections iii. and iv. until the measured stack exhaust gas values are equal to or less than 115 percent of the pollutant baseline values.

- v. Once all of the measured stack exhaust gas values are within the 115 per cent of the pollutant baseline values, record the measured stack exhaust gas values in the "Post Tuning" results column on the *Burner Tuning Reporting Form for Asphalt Concrete Plants* form.
- vi. By January 31st of each year, submit a copy of all *Burner Tuning Reporting Form for Asphalt Concrete Plants* forms produced during the past calendar year to the Ohio EPA District Office or local air agency responsible for the permitting of the facility.

e. Burner Tuning Frequency

The permittee shall conduct the burner tuning procedure within 20 production days after commencement of the production season in the State of Ohio. The permittee shall conduct another burner tuning procedure within 10 production days before or after June 1st of each year and within 10 production days before or after September 1st of each year. 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. A burner tuning is not required if the production season ends prior to the associated tuning due date.

In addition to the burner tuning procedure required above, the permittee shall conduct the burner tuning procedure within 20 production days from the date the facility switches to a fuel that is different than the fuel burned during the initial emissions tests that establish the pollutant baseline levels or the fuel burned during the most recent burner tuning procedure, whichever is later.

F. Miscellaneous Requirements

1. Burner Tuning Form:

| BURNER TUNING REPORTING FORM FOR ASPHALT CONCRETE PLANTS |  |
|--|--|
| Facility ID:   | Tuning Date:   |
| Legal Name:  | Other Company Name (if different than legal name):               |
| Mailing Address:   | Other Company Site Address: (if different than mailing address): |

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|  |   |
|--|---|
| City, State, Zip Code:                     | Other Company City, County, Zip Code:           |
| Site Contact Person:                       | Site Contact Telephone Number:                  |
| Site Contact Title:                        | Site Contact Fax Number:                        |
| Name of company performing tuning:         | Name of company performing emission monitoring: |
| Type of plant (ie: batch, drum mix, etc.): | Calibration date for analyzers:                 |

Reason for Tuning:  Season Initial Tuning  June Tuning  September Tuning  Fuel Switch  Other (describe)

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Fuel employed during tuning:  Natural Gas  #2 Fuel Oil  #4 Fuel Oil  Used Oil  Other (describe)

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**Tuning Results:**

| Parameter  | Recent Stack Test<br>Pollutant Baseline Levels <sup>1</sup> | Results    |                          |
|--|---|------------|--------------------------|
|  |   | Pre Tuning | Post Tuning <sup>3</sup> |
| Fuel flow to the burner (gallon/hr) (for fuel oil and on-spec used oil)                    |   |            |                          |
| Fuel pressure (psi)  |   |            |                          |
| For burners that require compressed air for proper operation, pressure at the burner (psi) |   |            |                          |
| Carbon Monoxide (CO) concentrations (ppm) <sup>2</sup>                                     |   |            |                          |
| NO <sub>x</sub> concentrations (ppm) <sup>2</sup>  |   |            |                          |
| Oxygen concentrations (%) <sup>2</sup>   |   |            |                          |
| Asphalt Production (tons/hr)   |   |            |                          |

<sup>1</sup>These values are based on the results of the most recent Ohio EPA approved emissions test.<sup>2</sup> Specify whether on a dry or wet basis.<sup>3</sup> If the burner did not require adjusting, please record N/A in the post tuning column.

Describe in detail a list of adjustments and/or repairs made to bring the operating parameters into conformance with the manufacturers specifications. Use additional paper if necessary.

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Authorized Signature: This signature shall constitute personal affirmation that all statements or assertions of fact made in this form are true and complete, comply fully with applicable state requirements, and shall subject the signatory to liability under

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applicable state laws forbidding false or misleading statements.

|                                      |                                     |
|--------------------------------------|-------------------------------------|
| Name of Official (Printed or Typed): | Title of Official and Phone Number: |
| Signature of Official:               | Date:                               |

2. The requirements of PTI 16-02404, after issued final, supersede all of the requirements of PTI 16-677, as issued final 08/10/88.