



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.state.oh.us

MAILING ADDRESS:

P.O. Box 1049
Columbus, OH 43216-1049

2/17/2009

Beth Mowrey
Stoneco Plant # 110
8775 Blackbird Road
PO Box 266
Thornville, OH 43076

Certified Mail

No	TOXIC REVIEW
No	PSD
Yes	SYNTHETIC MINOR
No	CEMS
No	MACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0448030014
Permit Number: P0104346
Permit Type: OAC Chapter 3745-31 Modification
County: Lucas

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of 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 comments on the permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, Toledo Blade. A copy of the public notice and the draft permit are enclosed. This permit has been posted to the Division of Air Pollution Control Web page <http://www.epa.state.oh.us/dapc> in Microsoft Word and Adobe Acrobat format. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
122 South Front Street
Columbus, Ohio 43215

and Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install and operate will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install and Operate is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Toledo Department of Environmental Services at (419)936-3015.

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 *Via E-Mail Notification*
TDES; Michigan; Indiana; Canada

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director



Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description:

This emissions unit, P931, is an existing CMI, Inc. Model STD 600 counter flow drum mix asphalt plant that is currently permitted under PTI 04-01130 issued 10/7/1998 and later modified 1/24/2006 to revise the pressure drop operational restriction. This plant is not portable. The company has submitted a PTIO application to increase allowable SO2 emissions and to increase the existing synthetic minor restriction on production.

The dryer has a maximum rated heat input capacity of 175 mmBtu/hr and may be fired with: natural gas, no.2 fuel oil, no.4 fuel oil, no.6 fuel oil and used oil.

August 2008 Director's Findings required stack testing while using slag to determine if SO2 and particulate emissions while using slag complied with permit allowable emissions. This application requests for an increase of allowable SO2 from 40.3 lbs/hr and 24.5 tons/yr up to 110.29 lbs/hr and 50.78 tons/yr. PTI 04-01130 contained a synthetic minor production rate restriction of 790,000 tons/yr. This permit application requests for the production restriction to be increased to 800,000 tons/yr of asphalt of which 92,000 tons per year of slag is used as a raw material.

The initial PTI application for this emissions unit specifies a maximum plant design rate of 650 tons per hour. An 8/27/1999 stack test for PE was conducted at a 3-run average of 558.61 tons/hr with run 3 being conducted at 604 tons per hour. This latest application specifies a maximum design capacity of 500 tons per hour and a projected actual plant production rate of 450 tons per hour. TES contacted the permittee to determine if the application was incorrect or if a physical change has been made that has reduced the design capacity of the plant. The permittee's consultant indicated that the maximum design capacity of the unit is now 500 tons per hour. The short-term emission limitations are based on 500 tons/hr throughput.

3. Facility Emissions and Attainment Status:

This is a synthetic minor facility for CO, NOx, PM10, SO2 and VOC. Lucas County is attainment for all criteria pollutants.

4. Applicable Rules/Regulations

- OAC rule 3745-31-05(A)(3) Best Available Technology
- OAC rule 3745-31-05(D) Federally enforceable restrictions to avoid major new source review and Title V
- OAC rule 3745-17-07(A)(1) Less stringent than NSPS subpart I
This rule requires 20% opacity as a 6-minute average – the same as NSPS, however, there are some exemptions allowed under this rule that are not allowed under NSPS subpart I.
- OAC rule 3745-17-11(B) Less stringent than BAT
Table I $E = 55(P)^{0.11}-40 = 55(500)^{0.11}-40 = 68.9 \text{ lbs/hr}$
Figure II – uncontrolled emissions 500 ton/hr(28 lb/ton)=14,000 lbs PE/hr
 $A = 34.44(U)^{0.1374} = 34.44(500)^{0.1374} = 80.89 \text{ lbs PE/hr}$
Table I < Figure II, so allowable PE under this rule = 68.9 lbs/hr
- OAC rule 3745-18-06 Less stringent than BAT
 $AER = 30P^{0.67} = 30(500)^{0.67} = 1,930 \text{ tons SO2/hr}$

OAC rule 3745-21-07(B)	Met by complying with BAT
OAC rule 3745-21-08(B)	Met by complying with BAT
40 CFR Part 60 subpart I	0.04 grain/dscf, and 20% opacity as a 6-minute average

5. Source Emissions:

PTI 04-1130 relied on AP-42 emission Table 11.1-8 dated 1/1995 and NSPS I as the basis for establishing allowable emissions.

CO 0.056 lb/ton
NOx 0.075 lb/ton
PE 0.04 grain/dscf (NSPS subpart I)
SO2 0.062 lb/ton
VOC 0.069 lb/ton

The PTI 04-1130 maximum rated capacity of 650 tons/hr and a restricted production of 790,000 tons per year, resulted in the following allowable emissions.

CO: 650 tons/hr x 0.056 lb/ton = 36.4 lbs/hr
NOx: 650 tons/hr x 0.075 lb/ton = 48.75 lbs/hr
PE: 0.04 grain/dscf
SO2: 650 tons/hr x 0.062 lb/ton = 40.3 lbs/hr
VOC: 650 tons/hr x 0.069 lb/ton = 44.85 lbs/hr

CO: 790,000 tons/yr x 0.056 lb/ton x ton/2000 lb = 22.1 tons/yr
NOx: 790,000 tons/yr x 0.075 lb/ton x ton/2000 lb = 29.6 tons/yr
PE: 25.9 tons/yr
SO2: 790,000 tons/yr x 0.062 lb/ton x ton/2000 lb = 24.5 tons/yr
VOC: 790,000 tons/yr x 0.069 lb/ton x ton/2000 lb = 27.3 tons/yr

The application for this permit (P0104346) requests the following allowable emissions.

CO: 36.40 lbs/hr and 22.10 tons/yr (no increase)
NOx: 48.80 lbs/hr and 29.60 tons/yr (no increase)
PE/PM10: 23.56 lbs/hr and 25.90 tons/yr (no increase)
SO2: 110.29 lbs/hr and 50.78 tons/yr (33.98 TPY increase)
VOC: 44.90 lbs/hr and 27.30 tons/yr (no increase)
Ind HAP: 1.24 tons/yr
Combined HAP 2.4 tons/yr

However, the company has indicated in their application that the maximum capacity is now 500 tons/hour. The requested allowables are based on 650 tons/hour; therefore, the allowable hourly emissions will be re-calculated based on 500 tons/hour capacity.

The requested SO2 limitations are based on an average SO2 emission factor determined during 2008 testing conducted at 5 of Allied, Shelly and Stoneco asphalt plants and included testing when slag was and was not added to the mix (0.53 lb SO2/ton of slag and 0.066 lb SO2/ton of product for non-slag production – according to OEPA, the two emissions factors are to be added together with the 0.53 lb/ton factor being attributed to emissions only from slag and the other factor being attributed to the fuel). This factor was developed through Findings and Orders negotiations with Ohio EPA and Stoneco.

All allowable emissions in PTI 04-1130, except for PE, were calculated based on 1995 AP-42 emission factors. AP-42 emission factors were updated in 2004 as outlined below.

Pollutant	lb/ton, AP-42 Table 11.1-8 1995	lb/ton, AP-42 Table 11.1-5 3/2004
CO	0.056	0.40
NOx (No. 2 oil/waste oil)	0.075	0.12
PE	0.007	0.014
PM10	0.015	0.023
SO2 (No. 2 fuel oil)	0.062	0.088
VOC (No. 6 oil)	0.069	0.036

PE lb/ton calculated from lb/hr requested emissions: $23.56 \text{ lb/hr} / (1/650 \times 500 \text{ ton/hr}) = 0.036246$ 0.04712 lb/ton

Recent SO2 testing at this emissions unit indicates that the emission limit does not need to be increased to the current AP-42 value for non-slag-containing asphalt when burning No.2 fuel oil or used oil. However, we do not have test data demonstrating compliance with the allowable SO2 emission limitations when burning No. 4 or No. 6 fuel oil which can contain up to 1% sulfur as allowed by the permit. We have no recent test data for CO and NOx emissions from this emission unit and the permittee has not requested for these emissions to be increased to current AP-42 levels.

A phone call to Rod Windle at Ohio EPA Central Office indicated that current OEPA policy requires that in the case of this emissions unit, all pollutants will be required to be tested for each type of fuel used, since all pollutants have not been tested within the last 5 years. Central Office also indicated that the modified permit should contain separate allowable emission rates for NOx and SO2 for each fuel burned. We will use the lb/ton emissions factors in the permit template to calculate emissions limitations for the different fuels for which we do not have test data (natural gas, no. 4 fuel oil, and no. 6 fuel oil) for SO2 and NOx.

Since PTI 04-1130 annual allowable emissions were based on 790,000 TPY production, the short term and annual emissions in this permit need to be re-calculated, since Stoneco reported a maximum hourly production rate of 500 ton/hour and requests a production increase to 800,000 tons/yr.

Short-term allowable emissions limitations rotary dryer:

CO: 500 tons/hr x 0.056 lb/ton = **28.0 lbs/hr**

NOx

NOx (Natural gas): 500 tons/hr x 0.029 lb/ton = **14.5 lbs/hr**

NOx (No. 2 oil/waste oil): 500 tons/hr x 0.053 lb/ton = **26.5 lbs/hr**

NOx (No. 4 fuel oil): 500 tons/hr x 0.066 lb/ton = **33.0 lbs/hr**

NOx (No. 6 fuel oil): 500 tons/hr x 0.076 lb/ton = **38.0 lbs/hr**

PE: 0.04 grain/dscf

SO2:

SO2 (Natural gas): 500 tons/hr x 0.011 lb/ton = **5.5 lbs/hr**

SO2 (No. 2 fuel oil): 500 tons/hr x 0.066 lb/ton = **33.0 lbs/hr**

SO2 (No. 4 fuel oil): 500 tons/hr x 0.11 lb/ton = **55.0 lbs/hr**

SO2 (No. 6 fuel oil): 500 tons/hr x 0.17 lb/ton = **85.0 lbs/hr**

VOC: 500 tons/hr x 0.069 lb/ton = **34.5 lbs/hr**

Annual emissions limitations rotary dryer:

CO: 800,000 tons/yr x 0.056 lb/ton x ton/2000 lb = **22.4 tons/yr**

NOx: 800,000 tons/yr x 0.076 lb/ton x ton/2000 lb = **30.4 tons/yr**

PE: 800,000 tons/yr x 0.04712 lb/ton x ton/2000 lb = **18.8 tons/yr**

SO2: PTI 04-01130 old allowable + 24.4 tons/yr (per permit template provided by Rod Windle)
29.6 tons/yr + 24.4 tons/yr = **54.0 tons/yr**

VOC: 800,000 tons/yr x 0.069 lb/ton x ton/2000 lb = **27.6 tons/yr**

***There was a calculation error in setting the annual PE limitation in PTI 04-1130 and it will be corrected in this permit.**

Fugitive Emissions Cold End

Stoneco submitted fugitive dust emission calculations on 2/12/2009 along with an updated process flow diagram.

The cold end material handling consists of the following operations. Sand, gravel and limestone are loaded-in by front end loader to cold feed storage bins (6 bins). Material from the bins is dropped onto Conveyor C1 which conveys the material to a screener. An overhead conveyor also conveys material to the screener, however, emissions from this conveyor are included in the permits for the quarry operations that are permitted under a different Facility ID. After the screener, material is conveyed to the rotary drum mixer. Reclaimed asphalt pavement is loaded-in to RAP feed storage bins (3 bins). The RAP is either crushed by an inline crusher and conveyed to a screener, or is conveyed directly to the screener. After the RAP screener, material is conveyed to the rotary drum mixer. Fines collected by the cyclone and bighouse are dropped onto the RAP conveyor and added to the rotary drum mixer.

Loading Operations

Emission factors from AP-42 Tables 11.12-2 dated 6/06

	<u>Tons/hr</u>	<u>Tons/yr</u>	<u>PE, lb/ton</u>	<u>PM10, lb/ton</u>
Hopper loading	470	742,600	0.0051	0.0024
Aggregate transfer(60%)	282	445,560	0.0069	0.0033
Sand transfer (40%)	188	297,040	0.0021	0.00099

PE: 470 tons/hr (0.0051 lb/ton) + 282 tons/hr(0.0069 lb/ton)+188 tons/hr(0.0021 lb/ton) =4.74 lbs/hr

[742,600 tons/yr(0.0051 lb/ton) + 445,560 tons/yr(0.0069 lb/ton) + 297,040 tons/yr(0.0021 lb/ton)](ton/2000 lb) = 3.74 tons/yr

PM10: 470 tons/hr(0.0024 lb/ton) + 282 tons/hr(0.0033 lb/ton) + 188 tons/hr(0.00099 lb/ton) =2.24 lbs/hr

[742,600 tons/yr(0.0024 lb/ton) + 445,560 tons/yr(0.0033 lb/ton) + 297,040 tons/yr(0.00099 lb/ton)](ton/2000 lb) = 1.77 tons/yr

Conveying Emissions (15 transfer points)

Emission Factors obtained from AP-42 Table 11.19.2-2 dated 8/04

PE: 0.00014 lb/ton controlled

PM10: 4.6E-05 lb/ton controlled

Conveyor rated capacity = 470 tons/hr

Maximum annual cold-end conveying capacity at 800,000 TPY of asphalt production
= 742,600 tons/yr

PE: 470 tons/hr(0.00014 lb/ton)(15) = 0.99 lb/hr
0.00014 lb/ton(742,600 tons/yr)(ton/2000 lb)(15) = 0.78 ton/yr

PM10: 470 tons/hr(4.6E-05 lb/ton)(15) = 0.32 lb/hr
4.6E-05 lb/ton(742,600 tons/yr)(ton/2000 lb)(15) = 0.26 ton/yr

Aggregate Feed Screen

Maximum rated capacity 500 tons/hr

Maximum annual capacity 742,600 tons/yr

Emission Factors obtained from AP-42 Table 11.19.2-2 dated 8/04

PE: 0.0022 lb/ton controlled

PM10: 0.00074 lb/ton controlled

PE: 500 tons/hr(0.0022 lb/ton) = 1.1 lb/hr

$$0.0022 \text{ lb/ton}(742,600 \text{ tons/yr})(\text{ton}/2000 \text{ lb}) = 0.82 \text{ ton/yr}$$

$$\text{PM10: } 500 \text{ tons/hr}(0.00074 \text{ lb/ton}) = 0.37 \text{ lb/hr}$$

$$0.00074 \text{ lb/ton}(742,600 \text{ tons/yr})(\text{ton}/2000 \text{ lb}) = 0.27 \text{ ton/yr}$$

RAP Feed Screen

Maximum rated capacity 200 tons/hr
Maximum annual capacity 400,000 tons/yr

Emission Factors obtained from AP-42 Table 11.19.2-2 dated 8/04
PE: 0.0022 lb/ton controlled
PM10: 0.00074 lb/ton controlled

$$\text{PE: } 200 \text{ tons/hr}(0.0022 \text{ lb/ton}) = 0.44 \text{ lb/hr}$$

$$0.0022 \text{ lb/ton}(400,000 \text{ tons/yr})(\text{ton}/2000 \text{ lb}) = 0.44 \text{ ton/yr}$$

$$\text{PM10: } 200 \text{ tons/hr}(0.00074 \text{ lb/ton}) = 0.15 \text{ lb/hr}$$

$$0.00074 \text{ lb/ton}(400,000 \text{ tons/yr})(\text{ton}/2000 \text{ lb}) = 0.15 \text{ ton/yr}$$

RAP Feed In-Line Crusher Emissions

Maximum capacity 200 tons/hr
Maximum annual capacity 400,000 tons/yr

Emission Factors obtained from AP-42 Table 11.19.2-2 dated 8/04
PE: 0.0012 lb/ton controlled
PM10: 0.00054 lb/ton controlled

$$\text{PE: } 200 \text{ tons/hr}(0.0012 \text{ lb/ton}) = 0.24 \text{ lb/hr}$$

$$0.0012 \text{ lb/ton}(400,000 \text{ tons/yr})(\text{ton}/2000 \text{ lb}) = 0.24 \text{ ton/yr}$$

$$\text{PM10: } 200 \text{ tons/hr}(0.00054 \text{ lb/ton}) = 0.11 \text{ lb/hr}$$

Total Cold-end Fugitive Emissions

$$\text{PE: } (4.74 + 0.99 + 1.1 + 0.44 + 0.24) \text{ lb/hr} = \mathbf{7.51 \text{ lb/hr}}$$

$$(3.74 + 0.78 + 0.82 + 0.44 + 0.24) \text{ ton/yr} = \mathbf{6.02 \text{ tons/yr}}$$

$$\text{PM10: } (2.24 + 0.32 + 0.37 + 0.15 + 0.24) \text{ lb/hr} = \mathbf{3.32 \text{ lb/hr}}$$

$$(1.77 + 0.26 + 0.27 + 0.15 + 0.11) \text{ ton/yr} = \mathbf{2.56 \text{ ton/yr}}$$

Hot End silo loading and asphalt loadout

PTI 04-1130 did not account for fugitive emissions from asphalt load-out and silo filling emissions, and these emissions will be accounted for in this permit. All PE is assumed to be 10 microns or smaller in diameter.

Asphalt loadout AP-42 Table 11.14 dated 3/04

$$\text{PE } 0.000181 + 0.00141(-V)e^{((0.0251)(T+460)-20.43)}$$

$$0.000181 + 0.00141(-(-0.5))e^{((0.0251)(325+460)-20.43)}$$

$$5.22\text{E-}04 \text{ lb/ton}$$

$$\text{VOC } 0.0172(-V)e^{((0.0251)(T+460)-20.43)}(1-\% \text{nonVOC})$$

$$0.0172(-(-.5))e^{((0.0251)(325+460)-20.43)} \times (1 - 0.073)$$

$$3.86\text{E-}03 \text{ lb/ton}$$

$$\text{CO } 0.00558(-V)e^{((0.0251)(T+460)-20.43)}$$

$$1.35\text{E-}03 \text{ lb/ton}$$

Silo Filling AP-42 Table 11.14 dated 3/04

PE $0.000332+0.00105(-V)e^{((0.0251)(T+460)-20.43)}$
5.86E-04 lb/ton
VOC $[0.0504(-V)e^{((0.0251)(T+460)-20.43)}] \times (1-0.014)$
1.20E-02 lb/ton
CO $EF=0.00488(-V)e^{((0.0251)(T+460)-20.43)}$
1.18E-03 lb/ton

Total Emissions for asphalt loadout and silo filling

CO 800,000 tons/yr(1.35E-03 +1.18E-03 lb/ton)(ton/2000 lb) = **1.01 tons/yr**
PE 800,000 tons/yr(5.22E-04 + 5.86E-04 lb/ton)(ton/2000 lb) = **0.44 ton/yr**
VOC 800,000 tons/yr(3.86E-03 + 1.2E-02 lb/ton)(ton/2000 lb) = **6.3 tons/yr**

Air Toxics

The permittee has identified two pollutants (from this emissions unit that may be emitted at a rate greater than 1 ton per year.

6. Conclusion:

This permit should be issued as a draft.

7. Please provide additional notes or comments as necessary:

None

8. Total Permit Allowable Emissions Summary (for informational purposes only):

<u>Pollutant</u>	<u>Tons Per Year</u>
CO	23.41 (1.31 increase)
NOx	30.4 (0.8 increase)
PE	25.26 (0.64 decrease)
SO2	54.0 (29.5 increase)
VOC	33.9 (6.6 increase)

PUBLIC NOTICE
Issuance of Draft Air Pollution Permit-To-Install and Operate
Stoneco Plant # 110

Issue Date: 2/17/2009

Permit Number: P0104346

Permit Type: OAC Chapter 3745-31 Modification

Permit Description: Chapter 31 modification of hot mix asphalt plant to allow for the use of slag as a raw material.

Facility ID: 0448030014

Facility Location: Stoneco Plant # 110
1360 Ford St,
Maumee, OH 43537

Facility Description: Asphalt Paving Mixture and Block Manufacturing

Chris Korleski, Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio has issued a draft action of an air pollution control, federally enforceable permit-to-install and operate (PTIO) for the facility at the location identified above on the date indicated. Comments concerning this draft action, or a request for a public meeting, must be sent in writing no later than thirty (30) days from the date this notice is published. All comments, questions, requests for permit applications or other pertinent documentation, and correspondence concerning this action must be directed to Mary Lehman-Schmidt at Toledo Department of Environmental Services, 348 South Erie Street or (419)936-3015. The permit can be downloaded from the Web page: www.epa.state.oh.us/dapc



**State of Ohio Environmental Protection Agency
Division of Air Pollution Control**

DRAFT

**Air Pollution Permit-to-Install and Operate
for
Stoneco Plant # 110**

Facility ID: 0448030014
Permit Number: P0104346
Permit Type: OAC Chapter 3745-31 Modification
Issued: 2/17/2009
Effective: To be entered upon final issuance
Expiration: To be entered upon final issuance



Air Pollution Permit-to-Install and Operate
for
Stoneco Plant # 110

Table of Contents

- Authorization 1
- A. Standard Terms and Conditions 3
 - 1. What does this permit-to-install and operate ("PTIO") allow me to do?..... 4
 - 2. Who is responsible for complying with this permit? 4
 - 3. What records must I keep under this permit? 4
 - 4. What are my permit fees and when do I pay them?..... 4
 - 5. When does my PTIO expire, and when do I need to submit my renewal application? 4
 - 6. What happens to this permit if my project is delayed or I do not install or modify my source? 5
 - 7. What reports must I submit under this permit? 5
 - 8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit? 5
 - 9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?... 5
 - 10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report? 6
 - 11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located? 6
 - 12. What happens if one or more emissions units operated under this permit is/are shut down permanently? 6
 - 13. Can I transfer this permit to a new owner or operator? 6
 - 14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"? 7
 - 15. What happens if a portion of this permit is determined to be invalid? 7
- B. Facility-Wide Terms and Conditions 8
- C. Emissions Unit Terms and Conditions 10
 - 1. P931, Asphalt plant..... 11



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104346

Facility ID: 0448030014

Effective Date: To be entered upon final issuance

Authorization

Facility ID: 0448030014

Application Number(s): A0036509

Permit Number: P0104346

Permit Description: Chapter 31 modification of hot mix asphalt plant to allow for the use of slag as a raw material.

Permit Type: OAC Chapter 3745-31 Modification

Permit Fee: \$1,250.00 *DO NOT send payment at this time - subject to change before final issuance*

Issue Date: 2/17/2009

Effective Date: To be entered upon final issuance

Expiration Date: To be entered upon final issuance

Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

Stoneco Plant # 110
1360 Ford St
Maumee, OH 43537

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604
(419)936-3015

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section 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 described emissions unit(s) will operate in compliance with applicable State and Federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104346

Facility ID: 0448030014

Effective Date: To be entered upon final issuance

Authorization (continued)

Permit Number: P0104346

Permit Description: Chapter 31 modification of hot mix asphalt plant to allow for the use of slag as a raw material.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	P931
Company Equipment ID:	P931
Superseded Permit Number:	04-01130
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104346

Facility ID: 0448030014

Effective Date: To be entered upon final issuance

A. Standard Terms and Conditions



1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is



very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.



10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Toledo Department of Environmental Services in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104346

Facility ID: 0448030014

Effective Date: To be entered upon final issuance

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104346

Facility ID: 0448030014

Effective Date: To be entered upon final issuance

B. Facility-Wide Terms and Conditions



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104346

Facility ID: 0448030014

Effective Date: To be entered upon final issuance

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) None.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install and Operate

Permit Number: P0104346

Facility ID: 0448030014

Effective Date: To be entered upon final issuance

C. Emissions Unit Terms and Conditions



1. P931, Asphalt plant

Operations, Property and/or Equipment Description:

Drum mix asphalt plant with a maximum design capacity of 500 tons per hour, and controlled with a baghouse.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. d)(9), (10), (11), (12), and g)(2)

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)b, b)(2)e, b)(2)f, b)(2)g, c)(2), c)(6), d)(2), d)(3), d)(4), e)(1), f)(1)c, f)(1)d, f)(1)e, f)(1)f, and f)(1)g

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05 (A)(3) Chapter 31 Modification	Stack Emissions Nitrogen Oxides (NO _x) emissions while burning natural gas shall not exceed 14.5 pounds per hour. NO _x emissions while burning propane, on-spec used oil or number 2 fuel oil shall not exceed 26.5 pounds per hour. NO _x emissions while burning number 4 fuel oil shall not exceed 33.0 pounds per hour. NO _x emissions while burning number 6 fuel oil and shall not exceed 38.0 pounds per hour. Sulfur dioxide (SO ₂) emissions while burning natural gas or propane shall not exceed 5.5 pounds per hour.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>SO₂ emissions while burning on-spec used oil or number 2 fuel oil shall not exceed 33.0 pounds per hour.</p> <p>SO₂ emissions while burning number 4 fuel oil shall not exceed 55.0 pounds per hour.</p> <p>SO₂ emissions while burning number 6 fuel oil shall not exceed 85.0 pounds per hour.</p> <p>SO₂ emissions while employing slag in the mix shall not exceed 0.53 pound per ton of slag applied in addition to the emissions generated while burning any permitted fuel.</p> <p>Carbon monoxide (CO) emissions while burning any approved fuel shall not exceed 28.0 pounds per hour.</p> <p>Volatile organic compound (VOC) emissions while burning any approved fuel shall not exceed 34.5 pounds per hour.</p> <p>Particulate emissions (PE) while burning any approved fuel shall not exceed 0.04 gr/dscf.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C) and 40 CFR Part 60, Subpart I.</p> <p>See b)(2)a through b)(2)i.</p>
b.	<p>OAC rule 3745-31-05 (D) Synthetic minor to avoid Title V</p>	<p>Stack Emissions</p> <p>NO_x emissions shall not exceed 30.4 tons per rolling, 12-month period.</p> <p>SO₂ emissions shall not exceed 54.0 tons per rolling, 12-month period.</p> <p>CO emissions shall not exceed 22.4 tons per rolling, 12-month period.</p> <p>VOC emissions shall not exceed 27.6 tons per rolling, 12-month period.</p> <p>PE shall not exceed 18.8 tons per rolling, 12-month period.</p> <p>Asphalt Load Out Emissions</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Emissions from load out operations shall not exceed 0.54 ton CO per rolling, 12-month period, 0.21 tons PE per rolling, 12-month period and 1.54 tons of VOC per rolling, 12-month period.</p> <p>Asphalt Silo Filling Emissions</p> <p>Emissions from silo filling operations shall not exceed 0.47 ton CO per rolling, 12-month period, 0.23 ton PE per rolling, 12-month period and 4.8 tons VOC per rolling, 12-month period.</p> <p>Cold End Fugitive Dust Emissions</p> <p>Emissions of fugitive dust associated with the cold aggregate, slag, sand and RAP loading, and the cold aggregate, slag, sand and RAP transfer operations shall not exceed 6.02 tons of fugitive dust per rolling, 12-month period.</p>
c.	OAC rule 3745-21-08(B)	See b)(2)i.
d.	OAC rule 3745-17-07(A)(1) OAC rule 3745-17-11(B)(1) OAC rule 3745-17-07(B) OAC rule 3745-17-08 OAC rule 3745-18-06(E)	The emissions limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
ef.	40 CFR Part 60, Subpart I	See b)(2)j.

(2) Additional Terms and Conditions

- a. 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.
- b. The aggregate loaded into the cold aggregate bins shall have a moisture content sufficient to minimize or eliminate visible emissions of fugitive dust from conveyors and all transfer points to the dryer.
- c. Visible emissions of fugitive dust 6 shall be less than or equal to 10 percent opacity, as a 6-minute average.
- d. Visible particulate emissions from the stack shall not exceed 20 percent opacity, as a 6-minute average.



- e. 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 percent, by weight.
- f. All number 4 fuel oil burned in this emissions unit shall have a sulfur content equal to or less than 0.8 percent, by weight.
- g. All number 6 fuel oil burned in this emissions unit shall have a sulfur content equal to or less than 1.0 percent, by weight.
- h. All used oil burned in this emissions unit shall be ~~non-specification~~ (on-spec) oil and must meet the used oil fuel specifications contained in OAC rule 3745-279-11. The permittee shall determine that the used fuel oil meets these specifications by performing analyses or obtaining copies of analyses or other information from the supplier documenting that the used fuel oil does not exceed (except for flash point which shall not fall below) the following limitations:

Contaminant/Property	Allowable Specifications
Arsenic	5 ppm, maximum
Cadmium	2 ppm, maximum
Chromium	10 ppm, maximum
total halogens	less than 1,000 ppm; or less than 4,000 ppm if the presumption that the used oil contains hazardous waste is rebutted, as described below
Lead	100 ppm, maximum
flash point	100°F, minimum

The used oil burned in this emissions unit shall contain less than the quantifiable levels of PCBs as defined in 40 CFR 761.3; and shall also not exceed the following mercury limitation nor fall below the following heating value:

heat content	135,000 Btu/gallon, minimum
PCB's	less than 2
Mercury	1 ppm, maximum

Used oil containing 1,000 ppm or greater total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under paragraph (B)(1) of rule 3745-279-10 of the Administrative Code. The permittee may receive and burn used oil equaling or exceeding 1,000 ppm total halogens, but less than 4,000 ppm, only if the permittee has successfully demonstrated, pursuant to OAC rule 3745-279-63, that the used oil does not contain a listed hazardous waste, by either acquiring and maintaining source process information which demonstrates that the used oil was contaminated by halogenated constituents that would not be listed hazardous waste or by demonstrating that the used oil does not contain significant concentrations of halogens by acquiring and maintaining representative analytical data. Acceptable analytical test protocols that can be used to analyze used oil for halogenated hazardous constituents include SW-846 Test Methods 9075, 9076, and 9077*.

If analytical results demonstrate that the used oil that contains 1,000 ppm or more total halogens, but less than 4,000 total halogens, does not contain greater than 100 ppm of any individual halogenated hazardous constituent found in the F001 and F002 listings in OAC rule 3745-51-31 and there is no information suggesting that any other halogenated hazardous constituent (e.g., chlorinated pesticides) has come in contact with the oil, then the presumption that the oil contains hazardous waste has been successfully rebutted**. The rebuttable presumption does not apply to either metal working oils/fluids containing chlorinated paraffins, if processed through a tolling arrangement as described in OAC 3745-279-24(C), or used oils contaminated with chlorofluorocarbons removed from refrigeration units.

The burning of used oil not meeting the above limitations is prohibited in this emissions unit and the fuel oil analyses shall document compliance with each limitation before it is burned. The management and burning of used oil is subject to the Standards for the Management of Used Oil, OAC Chapter 3745-279, and the permittee shall document and assure that used oils burned in this emissions unit meet all of the applicable requirements of this Chapter. If the used oil analyses shows total halogens of 1,000 ppm or greater, the permittee shall obtain and maintain all the necessary records to successfully rebut the presumption that the used oil contains or has been mixed with a listed hazardous waste in accordance with this permit.

*EPA publication SW-846, 3rd (or most current) edition, is available from the Government Printing Office, P.O. Box 371954, Pittsburgh, PA 15250-7954; 202/512-1800, document number 955-001-00000-1.

**DHWM policy documented in "Used Oil Burners - New Guidance for Rebuttable Presumption", published April 2008 or most current policy

[OAC rule 3745-279-10, OAC rule 3745-279-11, and OAC rule 3745-279-72; 40 CFR 279.63; 40 CFR 761.20(e); and DHWM policy]

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

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.

- j. In accordance with 40 CFR Part 60 Subpart I 60.90(a) and (b), this emissions unit is a hot mix asphalt plant that has commenced construction or modification after June 11, 1973, and is subject to the emissions limitations/control measures specified in 40 CFR Part 60 Subpart I.

c) Operational Restrictions

- (1) The permittee may not receive or burn any used oil which does not meet the standards in OAC rule 3745-279-11 and the specifications listed in this permit without first obtaining a permit-to-install or permit-to-install and operate that authorizes the burning of off-specification used oil. The burning of off-specification used oil, subject to OAC rule 3745-279-60 through 67, is prohibited as a fuel in this emissions unit.

- (2) The permittee has requested a federally enforceable limitation on asphalt produced in order to restrict the federally enforceable potential to emit. The amount of asphalt produced is restricted in two ways:

- a. The total amount of asphalt produced using any fuel is limited to 800,000 tons per rolling 12-month period. The permittee has sufficient records to demonstrate compliance with the asphalt production limitations upon permit issuance.

- b. The amount of asphalt produced and the SO₂ emissions are restricted by the following equation:

$$54.0 \text{ tons per 12-month period} \geq ((0.011)*(a) + (0.066)*(b) + (0.11)*(c) + (0.17)*(d) + (0.53)(e))/2000$$

Where:

a = tons asphalt produced with natural gas and/or propane per rolling, 12-month period;

b = tons asphalt produced with #2 fuel oil and/or used oil per rolling, 12-month period;

c = tons asphalt produced with #4 fuel oil per rolling, 12-month period;

d = tons asphalt produced with #6 fuel oil per rolling, 12-month period; and

e = tons of slag employed in the aggregate mix per rolling, 12-month period.

* = factors may be revised based upon Ohio EPA validated emissions testing and shall be revised if emissions testing results higher emissions

- (3) The permittee shall operate and maintain the fuel burner 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 CO and NOx.
 - (4) The permittee may substitute reclaimed asphalt pavement (RAP) in the raw material feed mix in amounts not to exceed 75 percent of the total asphalt mix produced on an hourly basis. The permittee may not substitute materials such as shingles, rubber, etc. without prior approval from Ohio EPA. The permittee may substitute slag produced from blast, basic oxygen, and open hearth furnaces into the asphalt mix, as described in OAC rule 3745-51-04(B)(7). Slag produced from other sources must be evaluated in accordance with OAC rule 3745-52-11. If determined to be hazardous waste, the slag must be managed in accordance with applicable regulations in OAC chapter 3745-266, recyclable materials used in a manner constituting disposal. The permittee shall only burn natural gas, propane, number 2 fuel oil, number 4 fuel oil, number 6 fuel oil, and/or on-spec used oil in this emissions unit. In order to use a fuel on an ongoing basis, the permittee shall complete the emissions testing for that fuel per paragraph f)(1).
 - (5) The emissions from this emissions unit shall be vented to a baghouse at all times the emissions unit is in operation. The discharge of the baghouse (i.e., the baghouse stack) shall be a minimum of 50 feet above the base elevation of the baghouse.
 - (6) The sulfur content in the slag used in the aggregate mix shall not exceed 1.75% sulfur, by weight. The permittee may use slag with a higher sulfur content than 1.75% if prior approval is granted by Ohio EPA and stack testing is performed to demonstrate the sulfur dioxide emission limits in b)(1) are not exceeded.
 - (7) The amount of slag employed in the mix shall not exceed, at anytime 3500 tons per day.
 - (8) The pressure drop across the baghouse shall be maintained within the range of 1 to 8 inches of water while the emissions unit is in operation.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall receive and maintain the chemical analyses from the supplier/marketer for each shipment of used oil burned in this emissions unit (or if the oil is generated on site, the permittee shall conduct the chemical analyses), which shall contain the following information:
 - a. the date the used oil was received at the facility and the amount received;
 - b. the name, address, and U.S. EPA identification number (if applicable) of the generator, transporter, processor/refiner, supplier, and/or marketer;
 - c. the results of the following chemical analyses, demonstrating that the used oil meets the standards in OAC rule 3745-279-11:

- i. arsenic content, in ppm;
 - ii. the cadmium content, in ppm;
 - iii. the chromium content, in ppm;
 - iv. the lead content, in ppm;
 - v. total halogens, in ppm; and
 - vi. the flash point;
- d. the analysis demonstrating that the used oil has a total halogen content below 1,000 ppm, or below 4,000 ppm following the successful demonstration to the Ohio EPA for the rebuttal of the presumption that the oil contains hazardous waste or has been mixed with a listed hazardous waste, as described in OAC rule 3745-279-63(C); and
- e. the results of the analyses demonstrating that the used oil meets the heating value and the mercury and PCB limitations contained in this permit.

Each analysis shall be kept in a readily accessible location for a period of not less than 5 years* following the receipt of each shipment of used oil and shall be made available to the Ohio EPA Division of Hazardous Waste Management and/or the Division of Air Pollution Control (the appropriate Ohio EPA District Office or local air agency) upon verbal or written request. Any authorized representative of the Ohio EPA may sample or require sampling of any used oil shipments received, stored, or burned by/at this facility for periodic detailed chemical analyses through an independent laboratory.

- (2) The permittee shall maintain records of the following information:
- a. the total asphalt production, in tons, for each month;
 - b. the total asphalt produced for each fuel type for each month;
 - c. the amount, in percent, of RAP applied in each mix type;
 - d. the amount (tons) of slag, furnace type that produced the slag and type (grade) of slag employed in each mix;
 - e. the rolling, 12 month summation of the total slag employed in the mix;
 - f. the rolling, 12 month summation of the total asphalt production and the asphalt production by fuel type, calculated by adding the current month's asphalt production to the asphalt production for the preceding eleven calendar months;
 - g. the rolling, 12-month summation of the PE, SO₂*, NO_x, VOC, and CO emissions;
 - h. the amount of slag employed in the mix for each day
 - i. the raw material composition for each mix type.

* The rolling, 12-month summation of SO₂ shall be calculated by using the equation in c)(2)b

- (3) For each shipment of number 2 fuel oil, number 4 fuel oil, number 6 fuel oil, and on-spec used oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.
- (4) The permittee shall submit and receive approval from Ohio EPA for a slag sampling and testing plan prior to applying slag in the asphalt mix. In the slag sampling plan, the permittee shall commit to demonstrating that the sulfur content of the slag does not exceed the limit in c)(6).
- (5) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the 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 eliminate the visible emissions.
- (6) 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. 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.
- (7) 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 g)(1)). An alternative form may be used upon approval of the appropriate Ohio EPA District Office or local air agency. The permittee shall submit a copy of all *Burner Tuning Reporting Form for Asphalt Concrete Plants* forms produced during the past calendar year to the appropriate Ohio EPA District Office or local air agency responsible for the permitting of the facility with the PER.
- (8) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.
- (9) The FEPTIO application for this emissions unit, P931, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system,

as specified by the permittee. The Toxic Air Contaminant Statute, ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled Review of New Sources of Air Toxic Emissions, Option A, as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
 - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists= (ACGIH) Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists= (ACGIH) Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
 - b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
 - c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., X hours per day and Y days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):
- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or worst case toxic contaminant(s):

$$\text{TLV}/10 \times 8/X \times 5/Y = 4 \text{ TLV}/XY = \text{MAGLC}$$

Toxic Contaminant: toluene

TLV (mg/m³): 75.4

Maximum Hourly Emission Rate (lbs/hr): 1.45

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 2.737

MAGLC (ug/m³): 75,360

and

Toxic Contaminant: formaldehyde

TLV (mg/m3): 36.8 (*for which toxic, if using worst case)

Maximum Hourly Emission Rate (lbs/hr): 1.55

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.925

MAGLC (ug/m3): 36.8

The permittee, has demonstrated that emissions of toluene and formaldehyde, from emissions unit P931, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the AToxic Air Contaminant Statute, ORC 3704.03(F).

- (10) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, 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 new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV 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 toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
 - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the AToxic Air Contaminant Statute 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 a non-restrictive change to a parameter or process operation, where compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final FEPTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (11) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the AToxic Air Contaminant Statute, ORC 3704.03(F):

- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
 - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the [Toxic Air Contaminant Statute](#), ORC 3704.03(F);
 - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the [Toxic Air Contaminant Statute](#), ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
 - d. the documentation of the initial evaluation of compliance with the [Toxic Air Contaminant Statute](#), ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
- (12) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the [Toxic Air Contaminant Statute](#), ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.
- e) Reporting Requirements
- (1) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the Potential to Emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. any exceedance of the used oil standards in OAC rule 3745-279-11;
 - ii. any occasion where oil containing 1,000 ppm or more total halogens was burned prior to submitting an acceptable (approved by the Division or Hazardous Waste Management) rebuttal to the presumption that the oil contains or has been mixed with hazardous waste;
 - iii. any exceedance of the limitations for mercury and/or PCBs;
 - iv. any deviation from the minimum heat content of 135,000 Btu/gallon;
 - v. all exceedances of the rolling 12-month asphalt production limitation;
 - vi. all exceedances of the rolling, 12-month SO₂ emission limitation calculated in accordance with the equation in c)(2)b;
 - vii. all exceedances of the slag employed in the mix restrictions in c)(7) and c)(8).

- viii. all exceedances of the rolling 12-month total PE, SO₂, NO_x, VOC, and CO emission limitations; and
- ix. all exceedances of the sulfur content limitations in b)(2)f through b)(2)h.
- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted (postmarked) each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitations: NO_x emissions while burning natural gas shall not exceed 14.5 pounds per hour; NO_x emissions while burning propane, on-spec used oil or number 2 fuel oil shall not exceed 26.5 pounds per hour; NO_x emissions while burning number 4 fuel oil shall not exceed 33.0 pounds per hour; NO_x emissions while burning number 6 fuel oil shall not exceed 38.0 pounds per hour; SO₂ emissions while burning natural gas or propane shall not exceed 5.5 pounds per hour; SO₂ emissions while burning on-spec used oil or number 2 fuel oil shall not exceed 33.0 pounds per hour; SO₂ emissions while burning number 4 fuel oil shall not exceed 55.0 pound per hour; SO₂ emissions while burning number 6 fuel oil shall not exceed 85.0 pounds hour; SO₂ emissions while employing slag in the mix shall not exceed 0.53 pound per ton of slag employed in addition to the emissions generated while burning any permitted fuel; CO emissions while burning any approved fuel shall not exceed 28.0 pounds per hour; VOC emissions while burning any approved fuel shall not exceed 34.5 pounds per hour; and PE while burning any approved fuel shall not exceed 0.04 gr/dscf.
 - b. Applicable Compliance Method: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- i. The emission testing shall be conducted within 120 days after the issuance of this permit or after beginning operation after the issuance of this permit, whichever date is later. Emissions testing for secondary fuels shall be conducted within 60 days after the switch to the secondary fuel. Emissions testing shall be necessary for each fuel type used only once per permitting cycle. Emissions testing for slag use in the mix shall be conducted within 60 days after the initially employing slag if slag was not used during the initial test for the permit cycle. If sand slag is used, emissions testing for sand slag use in the mix shall be conducted within 60 days after initially employing sand slag if slag is used after the initial testing for the permit cycle. For the purposes of this permit, secondary fuels shall be fuels used after the initial emissions test for this permit cycle.

- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE, VOC, CO, NO_x and SO₂ for the primary fuel and slag use, if applicable. Prior to secondary fuel or slag use emissions testing, the permittee shall consult the appropriate Ohio EPA District Office or local air agency to determine which pollutants should be tested.

- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s) for:

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

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

SO₂, 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 paragraph 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.

- iv. The test(s) shall be conducted while this emissions unit is operating at or near its maximum capacity, maximum slag usage rate, and burning natural gas, propane, number 2 fuel oil, number 4 fuel oil, number 6 fuel oil, or on-spec used oil for PE, VOC, CO, NO_x and SO₂ and employing RAP to verify VOC emissions, unless otherwise specified or approved by the appropriate 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 appropriate 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), 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 appropriate Ohio EPA District Office or local air agency's refusal to accept the results of the emission test(s).

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

- c. Emission Limitation: PE emissions shall not exceed 18.8 tons per rolling, 12-month period.

Applicable Compliance Method: Compliance shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of PE per ton of asphalt produced for each fuel, by the actual rolling 12-month summation of asphalt produced for each fuel, in tons per rolling 12-month period (as derived from the records required by d)(2)), summing the results for all fuels, and dividing by 2000.

- d. Emission Limitation: VOC emissions shall not exceed 27.6 tons per rolling, 12-month period.

Applicable Compliance Method: Compliance shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of VOC per ton of asphalt produced for each fuel, by the actual rolling 12-month summation of asphalt produced for each fuel, in tons per rolling 12-month period (as derived from the records required by d)(2)), summing the results for all fuels, and dividing by 2000.

- e. Emission Limitation: CO emissions shall not exceed 22.4 tons per rolling, 12-month period.

Applicable Compliance Method: Compliance shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of CO per ton of asphalt produced for each fuel, by the actual rolling 12-month summation of asphalt produced for each fuel, in tons per rolling 12-month period (as derived from the records required by term and condition d)(2)), summing the results for all fuels, and dividing by 2000.

- f. Emission Limitation: SO₂ emissions shall not exceed 54.0 tons per rolling, 12-month period.

Applicable Compliance Method: Compliance shall be determined by calculating the emissions using the equation in c)(2)b (as derived from the records required by d)(2).

- g. Emission Limitation: NO_x emissions shall not exceed 30.4 tons per rolling, 12-month period.

Applicable Compliance Method: Compliance shall be determined by multiplying the observed emission rate from the most recent emissions testing, in pounds of NO_x per ton of asphalt produced for each fuel, by the actual rolling 12-month summation of asphalt produced for each fuel, in tons per rolling 12-month period (as derived from the records required by d)(2)), summing the results for all fuels, and dividing by 2000.

- h. Emission Limitation: Visible emissions of fugitive dust shall be less than or equal to 10 percent opacity, as a 6-minute average.

Applicable Compliance Method: Upon request by the appropriate Ohio EPA District Office or local air agency, visible particulate emissions shall be determined according to USEPA Method 9.

- i. Emission Limitation: Visible particulate emissions from the stack shall not exceed 20 percent opacity as a 6-minute average.

Applicable Compliance Method: Upon request by the appropriate Ohio EPA District Office or local air agency, visible particulate emissions shall be determined according to USEPA Method 9.

- j. Emission Limitation: Emissions of fugitive dust associated with the cold aggregate, slag, sand and RAP loading, and the cold aggregate, slag, sand and RAP transfer operations shall not exceed 6.02 tons of PE per rolling 12-month period. (AP-42 5th Edition, Table 11.12-2(6/06) and Table 11.19.2-2(8/04)).

Applicable Compliance Method: Compliance shall be assumed based upon the following worst case calculations:

Fugitive emissions from the cold end are calculated as follows:

Loading Operations

	<u>Tons/yr</u>	<u>PE, lb/ton</u>
Hopper loading	742,600	0.0051
Aggregate transfer(60%)	445,560	0.0069
Sand transfer (40%)	297,040	0.0021

PE: $[742,600 \text{ tons/yr}(0.0051 \text{ lb/ton}) + 445,560 \text{ tons/yr}(0.0069 \text{ lb/ton}) + 297,040 \text{ tons/yr}(0.0021 \text{ lb/ton})](\text{ton}/2000 \text{ lb}) = 3.74 \text{ tons/yr}$

Conveying Emissions (15 transfer points)

PE: $0.00014 \text{ lb/ton}(742,600 \text{ tons/yr})(\text{ton}/2000 \text{ lb})(15) = 0.78 \text{ ton/yr}$

Aggregate Feed Screen

PE: 0.0022 lb/ton(742,600 tons/yr)(ton/2000 lb) = 0.82 ton/yr

RAP Feed Screen

PE: 0.0022 lb/ton(400,000 tons/yr)(ton/2000 lb) = 0.44 ton/yr

RAP Feed In-Line Crusher

PE: 0.0012 lb/ton(400,000 tons/yr)(ton/2000 lb) = 0.24 ton/yr

Total Cold-end Fugitive Emissions

PE: (3.74 + 0.78 + 0.82 + 0.44 + 0.24)ton/yr = 6.02 tons/yr

k. Emission Limitation: Asphalt Load out and Silo Filling Emissions

Emissions from load out operations shall not exceed 0.54 ton CO per rolling 12-month period, 0.21 ton PE per rolling 12-month period and 1.54 tons of OC per rolling 12-month period.

Emissions from silo filling operations shall not exceed 0.47 ton CO per rolling 12-month period, 0.23 ton PE per rolling 12-month period and 4.8 tons OC per rolling 12-month period.

Applicable Compliance Method: Compliance shall be assumed based upon the following worst case calculations:

Emissions from asphalt load out and silo filling operations 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 per cent of TOC is not VOC AP-42 Table 11.1-16 dated 3/2004

For plant load out, 7.3 per cent of TOC is not VOC AP-42 Table 11.1-16 dated 3/2004

Activity	Pollutant	Predictive Emission Factor Equation, lb/ton
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:

Activity	Pollutant	lb/ton	tons/yr (at 800,000 tons/yr production)
Silo filling	PE	5.86×10^{-4}	0.23
Load out	PE	5.22×10^{-4}	0.21
Silo filling	VOC	1.20×10^{-2}	4.8
Load out	VOC	3.86×10^{-3}	1.54
Silo filling	CO	1.18×10^{-3}	0.47
Load out	CO	1.35×10^{-3}	0.54

(2) Burner Tuning

a. Introduction

The permittee shall submit for approval from Ohio EPA a “burner tuning procedure” for this facility by April 1, of each year. The burner tuning procedure shall contain the basic elements as described in the language below with the ability for the permittee to adjust the frequency of the burner tuning procedure depending upon the production of the plant. The submittal of the “burner tuning procedure” is independent of the PER submittal. If approval is not granted then the permittee shall submit another burner tuning procedure within 30 days of receiving a written disapproval. In the event no burner tuning procedure is submitted and approved within the specified timelines then the following shall be adhered to:

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

The permittee shall properly operate and maintain portable device(s) to monitor the concentration of NO_x, O₂ 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 f)(1). The baselines shall be determined for NO_x, and CO. Sampling should measure the exhaust gas values exiting the dryer or the baghouse. The duration of each sample shall follow the portable monitor manufacturer's recommendations. Record these values on the *Burner Tuning Reporting Form for Asphalt Concrete Plants* form (as found in g)(1)) 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 f)(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 manufacturer's specifications.
- iii. Using the calibrated monitor and the monitor manufacturer's recommended sampling duration, measure the stack exhaust gas values for O₂, NO_x, 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 percent 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.

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. If the baseline level testing or the initial season tuning is done within 30 days prior to June 1 or September 1, the tuning associated with that due date is not required.

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.

- (3) The metal contents for arsenic, cadmium, chromium, lead, and mercury shall be analyzed using a "Total Analysis" or "Total Metals" testing methodology. The metal contents shall not be analyzed using a leachate procedure such as the "Toxicity Characteristic Leaching Procedure" or "Extraction Procedure Toxicity Test". Chapter 2 of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846, 3rd Edition, most current update) shall be used for selecting the appropriate test methods for the used oil analyses.

g) Miscellaneous Requirements

- (1) Burner Tuning Form (see next page)
- (2) Modeling to demonstrate compliance with, the AToxic Air Contaminant Statute^e, ORC 3704.03(F)(4)(b), was not necessary because the emissions unit=s maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

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):
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)

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

Tuning Results:

Parameter	Recent Stack Test Pollutant Baseline Levels ¹	Results	
		Pre Tuning	Post Tuning ³
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) ²			
NOx concentrations (ppm) ²			
Oxygen concentrations (per cent) ²			
Asphalt Production (tons/hr)			

¹These values are based on the results of the most recent Ohio EPA approved emissions test.

² Specify whether on a dry or wet basis.

³ 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.

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 applicable state laws forbidding false or misleading statements.

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