



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

9/30/2016

Certified Mail

Brian Thomas
Owens Corning Roofing and Asphalt, LLC
890 W. Smith Road
Medina, OH 44256

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 1652050040
Permit Number: P0120957
Permit Type: Initial Installation
County: Medina

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**
- **What should you do if you notice a spill or environmental emergency?**

How to appeal this permit

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging 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 Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

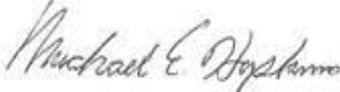
This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

What should you do if you notice a spill or environmental emergency?

Any spill or environmental emergency which may endanger human health or the environment should be reported to the Emergency Response 24-HOUR EMERGENCY SPILL HOTLINE toll-free at (800) 282-9378. Report non-emergency complaints to the appropriate district office or local air agency.

If you have any questions regarding your permit, please contact Akron Regional Air Quality Management District at (330)375-2480 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA
ARAQMD; Canada



FINAL

**Division of Air Pollution Control
Permit-to-Install
for
Owens Corning Roofing and Asphalt, LLC**

Facility ID:	1652050040
Permit Number:	P0120957
Permit Type:	Initial Installation
Issued:	9/30/2016
Effective:	9/30/2016



Division of Air Pollution Control
Permit-to-Install
for
Owens Corning Roofing and Asphalt, LLC

Table of Contents

Authorization	1
A. Standard Terms and Conditions	3
1. Federally Enforceable Standard Terms and Conditions	4
2. Severability Clause	4
3. General Requirements	4
4. Monitoring and Related Record Keeping and Reporting Requirements.....	5
5. Scheduled Maintenance/Malfunction Reporting	6
6. Compliance Requirements	6
7. Best Available Technology	7
8. Air Pollution Nuisance	8
9. Reporting Requirements	8
10. Applicability	8
11. Construction of New Sources(s) and Authorization to Install	8
12. Permit-To-Operate Application	9
13. Construction Compliance Certification	10
14. Public Disclosure	10
15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations	10
16. Fees.....	10
17. Permit Transfers	10
18. Risk Management Plans	10
19. Title IV Provisions	10
B. Facility-Wide Terms and Conditions.....	11
C. Emissions Unit Terms and Conditions	13
1. P011, Convertor #6.....	14



Final Permit-to-Install
Owens Corning Roofing and Asphalt, LLC
Permit Number: P0120957
Facility ID: 1652050040
Effective Date: 9/30/2016

Authorization

Facility ID: 1652050040
Facility Description: Asphalt Felts and Coatings.
Application Number(s): A0056032
Permit Number: P0120957
Permit Description: Initial Installation of Convertor #6 - Asphalt Blowing Still Controlled with a Thermal Incinerator - Replacement of Convertor #1
Permit Type: Initial Installation
Permit Fee: \$1,000.00
Issue Date: 9/30/2016
Effective Date: 9/30/2016

This document constitutes issuance to:

Owens Corning Roofing and Asphalt, LLC
890 W. Smith Road
Medina, OH 44256

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

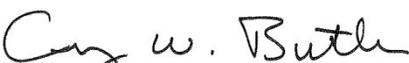
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Akron Regional Air Quality Management District
1867 West Market St.
Akron, OH 44313
(330)375-2480

The above named entity is hereby granted a Permit-to-Install for the 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 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


Craig W. Butler
Director



Final Permit-to-Install
Owens Corning Roofing and Asphalt, LLC
Permit Number: P0120957
Facility ID: 1652050040
Effective Date:9/30/2016

Authorization (continued)

Permit Number: P0120957

Permit Description: Initial Installation of Converter #6 - Asphalt Blowing Still Controlled with a Thermal Incinerator - Replacement of Converter #1

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

Emissions Unit ID:	P011
Company Equipment ID:	Converter #6
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Final Permit-to-Install
Owens Corning Roofing and Asphalt, LLC
Permit Number: P0120957
Facility ID: 1652050040
Effective Date:9/30/2016

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
 - (1) Standard Term and Condition A.2.a), Severability Clause
 - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
 - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A.9., Reporting Requirements
 - (5) Standard Term and Condition A.10., Applicability
 - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A.14., Public Disclosure
 - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A.16., Fees
 - (10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

- a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- b) 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.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Akron Regional Air Quality Management District.

- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Akron Regional Air Quality Management District. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
 - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Akron Regional Air Quality Management District every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
 - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

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, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Akron Regional Air Quality Management District in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

- a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted

local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c) The permittee shall submit progress reports to the Akron Regional Air Quality Management District concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. 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.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Akron Regional Air Quality Management District.
- 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 state-only required 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 Akron Regional Air Quality Management District. 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, 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.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s) not exempt from the requirement to obtain a Permit-to-Install.

11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. 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 this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit 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.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. 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 permittee shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., 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) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., 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). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.

13. Construction Compliance Certification

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. 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.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

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 by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. 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 any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed. The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

18. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

19. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.



Final Permit-to-Install
Owens Corning Roofing and Asphalt, LLC
Permit Number: P0120957
Facility ID: 1652050040
Effective Date: 9/30/2016

B. Facility-Wide Terms and Conditions



Final Permit-to-Install
Owens Corning Roofing and Asphalt, LLC
Permit Number: P0120957
Facility ID: 1652050040
Effective Date:9/30/2016

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.



Final Permit-to-Install
Owens Corning Roofing and Asphalt, LLC
Permit Number: P0120957
Facility ID: 1652050040
Effective Date: 9/30/2016

C. Emissions Unit Terms and Conditions

1. P011, Converter #6

Operations, Property and/or Equipment Description:

Converter #6 - Asphalt Blowing Still Controlled by JZ Thermal Incinerator

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(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 are identified below. 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.	ORC 3704.03(T) OAC rule 3745-31-05(A)(3)	The BAT requirements for volatile organic compound (VOC) emissions are equivalent to the MACT requirements of 40 CFR Part 63, Subpart LLLLLL. Carbon monoxide (CO) emissions shall not exceed 3.37 tons per month averaged over a 12-month rolling period. Sulfur dioxide (SO ₂) shall not exceed 5.20 tons per month averaged over a 12-month rolling period.
b.	OAC rule 3745-31-05(A)(3), as effective 6/30/2008	Particulate emissions (PE) shall not exceed 0.70 tons per month averaged over a 12-month rolling period. Nitrogen oxides (NO _x) emissions shall not exceed 0.55 tons per month averaged over a 12-month rolling period. See b)(2)a. below.
	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/2008	The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC, PE, and NO _x limitations from this air contaminant source since the potential to emit is less than 10 tons per year. See b)(2)b. below.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-07(A)	The visible emission limitation based on this rule is less stringent than the limit established pursuant to 40 CFR Part 60, Subpart UU.
d.	OAC rule 3745-17-11	PE shall not exceed 11.5 pounds per hour (Based on an uncontrolled mass rate of emissions for P003, P004, and P011 of 103.15 pounds per hour, and the use of Curve P-1 of Figure II.)
e.	40 CFR Part 60, Subpart UU	0.60 kilogram of particulates per megagram of asphalt charged to the still (1.2 pounds per ton) 0.67 kilogram of particulates per megagram of asphalt charged to the still when a catalyst is added to the still (1.3 pounds per ton) Visible PE shall not exceed 0% opacity for the exhaust gases.
f.	40 CFR Part 63, Subpart LLLLLL	Reduce total hydrocarbon mass emissions by 95%, or to a concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen; or Route the emissions to a combustion device achieving a combustion efficiency of 99.5%.
g.	40 CFR 63.1-15	Table 7 to Subpart LLLLLL of 40 CFR Part 63 - Applicability of General Provisions to Subpart LLLLLL shows which parts of the General Provisions in 40 CFR 63.1 - 15 apply.

(2) Additional Terms and Conditions

- a. The BAT emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than ten tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than ten tons per year BAT exemption) into the Ohio SIP.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the static pressure in the duct downstream of the JZ thermal incinerator is between 0.8 to -2.5 inches of water vacuum.
- (2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the JZ thermal incinerator, as a 3-hour average when the emissions unit(s) controlled by the thermal incinerator is/are in operation, shall not be less than the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance.
- (3) The permittee shall operate and maintain a continuous monitor and recorder which measures the static pressure in the duct downstream of the thermal incinerator while the emissions unit is in operation. The monitoring equipment and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modification deemed necessary by the permittee. Exceedance of the normal operating static pressure range shall require shutdown, investigation of any problems and corrective action to enable operation in the normal range.

The permittee shall maintain monthly records which show the date(s) and time(s) when the static pressure in the duct downstream of the thermal incinerator falls below normal operating levels.

- (4) The permittee shall maintain monthly records of the following information:
- a. the asphalt throughput rate(both with and without the use of a ferric chloride catalyst), in tons, for each month; and
- b. the calculated CO, SO₂, PE, and NO_x emissions; and at the end of 12 months of operation, the rolling 12-month summation of CO, SO₂, PE, and NO_x emissions and the average calculated over each rolling 12-month period.
- (5) The permittee shall perform weekly 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 emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

- d. the total duration of any visible emissions incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
- (6) The permittee shall maintain records of the combustion zone temperature* data along with the 3-hour averages.
- *[The terms “combustion temperature” and “combustion zone temperature” have identical definitions. “Combustion zone temperature” has been used in instances that the applicable MACT citation is being cited.]
- (7) The permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the following:
- a. the CPMS must complete a minimum of one cycle of operation for each successive 15-minute period;
 - b. to determine the 3-hour average, the permittee must:
 - i. have a minimum of four successive cycles of operation to have a valid hour of data;
 - ii. have valid data from at least three of four equally spaced data values for that hour from a CPMS that is not out-of-control according to the permittee’s site-specific monitoring plan; and
 - iii. determine the 3-hour average of all recorded readings for each operating day, except as stated in section 63.8690(c) (the permittee must have at least two of the three hourly averages for that period using only hourly average values that are based on valid data (i.e., not from out-of-control periods)); and
 - c. the permittee must record the results of each inspection, calibration, and validation check.
- (8) For each temperature monitoring device, the permittee must meet the requirements of section d)(7) and the following:
- a. locate the temperature sensor in a position that provides a representative temperature;
 - b. for a non-cryogenic temperature range, use a temperature sensor with a minimum measurement sensitivity of 2.8 degrees C or 1.0 percent of the temperature value, whichever is larger;
 - c. if a chart recorder is used, it must have a sensitivity in the minor division of at least 20 degrees F;
 - d. perform an accuracy check at least semiannually or following an operating parameter deviation;

- i. according to the procedures in the manufacturer's documentation; or
 - ii. by comparing the sensor output to redundant sensor output; or
 - iii. by comparing the sensor output to the output from a calibrated temperature measurement device; or
 - iv. by comparing the sensor output to the output from a temperature simulator; and
- e. conduct accuracy checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range or install a new temperature sensor; and
 - f. at least quarterly or following an operating parameter deviation, perform visual inspections of components if redundant sensors are not used.
- (9) As an option to installing the CPMS specified in section d)(7), the permittee may install a continuous emissions monitoring system (CEMS) or a continuous opacity monitoring system (COMS) that meets the requirements specified in 40 CFR 63.8 and the applicable performance specifications of 40 CFR Part 60, Appendix B.
- (10) For each monitoring system, the permittee must develop and make available for inspection by the permitting authority, upon request, a site-specific monitoring plan that addresses the following:
- a. installation of the CPMS, CEMS, or COMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);
 - b. performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction system; and
 - c. performance evaluation procedures and acceptance criteria (i.e., calibrations).
- (11) The site-specific monitoring plan must also address the following:
- a. ongoing operation and maintenance procedures in accordance with general requirements of sections 40 CFR 63.8(c)(1), (c)(3), (c)(4)(ii), (c)(7), and (c)(8);
 - b. ongoing data quality assurance procedures in accordance with the general requirements of section 40 CFR 63.8(d); and
 - c. ongoing record keeping and reporting procedures in accordance with the general requirements of sections 40 CFR 63.10(c), (e)(1), and (e)(2)(i).
- (12) The permittee must conduct a performance evaluation of each CPMS, CEMS, or COMS in accordance with the site-specific monitoring plan.

- (13) The permittee must operate and maintain the CPMS, CEMS, or COMS in continuous operation according to the site-specific monitoring plan.

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- a. all exceedances of the rolling, 12-month emissions limitations (for both the process and the products of combustion from the thermal incinerator);
 - b. all periods of time during which the static pressure in the duct downstream of the thermal incinerator exceeded the normal operating range; and

Thermal Incinerator Requirements

- c. each period of time (start time and date, and end time and date) when the average combustion temperature within the thermal incinerator was outside of the acceptable range;
- d. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the thermal incinerator;
- e. each incident of deviation described in "c" or "d" (above) where a prompt investigation was not conducted;
- f. each incident of deviation described in "c" or "d" where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the thermal incinerator into compliance with the acceptable range, was determined to be necessary and was not taken; and
- g. each incident of deviation described in "c" or "d" where proper records were not maintained for the investigation and/or the corrective action(s).

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

- (3) The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the stack serving these emissions units, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Akron RAQMD) by January 31 and July 31 of each year and shall cover the previous 6-month period.
- (4) The permittee shall submit compliance reports that contain the information required by 40 CFR 63.8693(c). The reports shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through

December 31. The compliance reports must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

f) Testing Requirements

(1) Compliance with the emission limitations in section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible PE shall not exceed 0% opacity for the exhaust gases.

Applicable Compliance Method:

If required, compliance with the visible PE limitation shall be demonstrated based on the results of visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the requirements of section f)(2).

b. Emission Limitations:

0.60 kilogram of particulates per megagram of asphalt charged to the still (1.2 pounds per ton)

0.67 kilogram of particulates per megagram of asphalt charged to the still when a catalyst is added to the still (1.3 pounds per ton)

Applicable Compliance Method:

Compliance with the limitation shall be determined based upon the results of emission testing conducted in accordance with Methods 1-5A, of 40 CFR Part 60, Appendix A and the requirements of section f)(2).

c. Emission Limitation:

PE shall not exceed 11.5 pounds per hour from P003, P004, and P011, combined

Applicable Compliance Method:

If required, compliance with the hourly mass emission limitation shall be determined through the results of testing in accordance with Methods 1-5 of 40 CFR Part 60, Appendix A.

d. Emission Limitation:

PE shall not exceed 0.70 tons per month averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance with the monthly mass emission limitation shall be determined by multiplying the results of the most recent stack test (in pounds per hour of PE) by the total hours of operation per month, divide by 2,000 pounds per ton, and then average the result over a 12-month rolling period.

e. Emission Limitation:

CO emissions shall not exceed 3.37 tons per month averaged over a 12-month rolling period.

Applicable Compliance Method:

$$\text{CO Emissions} = \sum \text{Production Emissions} + \text{Combustion Emissions}$$

Production emissions are calculated based on the facility submitted CO emission factor of 0.95 pounds CO per ton of asphalt produced. The emission factor is derived from stack test results at various similar facilities.

Combustion emissions are calculated using the appropriate AP-42 emission factor when the incinerator is firing natural gas of 84 lb/MMscf (AP-42 Table 1.4-1, July 1998 – uncontrolled small boilers) and when firing No. 2 fuel oil of 5.0 lb/kgal (AP-42 Table 1.3-1, May 2010 – distillate oil).

If required, compliance with the monthly mass emission limitation shall be determined through the results of testing in accordance with Methods 1-4, and 10 of 40 CFR Part 60, Appendix A.

f. Emission Limitation:

SO₂ shall not exceed 5.20 tons per month averaged over a 12-month rolling period.

Applicable Compliance Method:

$$\text{SO}_2 \text{ Emissions} = \sum \text{Production Emissions} + \text{Combustion Emissions}$$

Production emissions are calculated based on the facility submitted SO₂ emission factors of 1.40 pounds SO₂ per ton of asphalt produced (without ferric) and 0.70 pounds SO₂ per ton of asphalt produced (with ferric). The emission factor is derived from stack test results at various similar facilities.

Combustion emissions are calculated using the appropriate AP-42 emission factor when the incinerator is firing natural gas of 0.6 lb/MMscf (AP-42 Table 1.4-2, July 1998) and when firing No. 2 fuel oil of 42.6 lb/kgal (AP-42 Table 1.3-1, May 2010 – distillate oil – 142S where S = 0.3).

If required, compliance with the monthly mass emission limitation shall be determined through the results of testing in accordance with Methods 1-4, and 6 of 40 CFR Part 60, Appendix A.

g. Emission Limitation:

NO_x emissions shall not exceed 0.55 tons per month averaged over a 12-month rolling period.

Applicable Compliance Method:

NO_x Emissions = ∑ Production Emissions + Combustion Emissions

Production emissions are calculated based on the facility submitted NO_x emission factor of 0.11 pounds NO_x per ton of asphalt produced. The emission factor is derived from stack test results at various similar facilities.

Combustion emissions are calculated using the appropriate AP-42 emission factor when the incinerator is firing natural gas of 100 lb/MMscf (AP-42 Table 1.4-1, July 1998 – uncontrolled small boilers) and when firing No. 2 fuel oil of 20 lb/kgal (AP-42 Table 1.3-1, May 2010 – distillate oil).

If required, compliance with the monthly mass emission limitation shall be determined through the results of testing in accordance with Methods 1-4, and 7 of 40 CFR Part 60, Appendix A.

h. Emission Limitation:

Reduce total hydrocarbon mass emissions by 95%, or to a concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen; or

route the emissions to a combustion device achieving a combustion efficiency of 99.5%.

Applicable Compliance Method:

To determine compliance with the total hydrocarbon percent reduction standard, use Equations 3 and 4 of this section as follows:

$$RE = [(Mthci - Mthco) / (Mthci)] * 100 \quad (\text{Eq. 3})$$

Where:

RE = Emission reduction efficiency, percent;

Mthci = Mass flow rate of total hydrocarbons entering the control device, kilograms per hour, determined using Equation 4; and

Mthco = Mass flow rate of total hydrocarbons exiting the control device, kilograms per hour, determined using Equation 4.

$$Mthc = C * Q * K \quad (\text{Eq. 4})$$

Where:



M_{thc} = Total hydrocarbon emission rate, kilograms per hour;

C = Concentration of total hydrocarbons on a dry basis, parts per million by volume (ppmv), as measured by the test method specified in Table 3 of 40 CFR Part 63, Subpart LLLLLL; and

Q = Vent gas stream flow rate (dscmm) at a temperature of 20 degrees C as measured by the test method specified in Table 3 of 40 CFR Part 63, Subpart LLLLLL; and

K = Unit conversion constant (1.1E-04) (ppmv)⁻¹ (kilogram / standard cubic meter) (minutes / hour), where standard temperature for gram-mole/standard cubic meter is 20 degrees C.

To determine compliance with the combustion efficiency standard, Equation 5 of this section must be used, as follows:

$$CE = [1 - (CO / CO_2) - (THC / CO_2)] \quad (\text{Eq. 5})$$

Where:

CE = Combustion efficiency, percent;

CO = Carbon monoxide concentration at the combustion device outlet, in parts per million by volume (dry), as measured by the test method specified in Table 3 of 40 CFR Part 63, Subpart LLLLLL;

CO₂ = Carbon dioxide concentration at the combustion device outlet, in parts per million by volume (dry), as measured by the test method specified in Table 3 of 40 CFR Part 63, Subpart LLLLLL; and

THC = Total hydrocarbon concentration at the combustion device outlet, in parts per million by volume (dry), as measured by the test method specified in Table 3 of 40 CFR Part 63, Subpart LLLLLL.

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 180 days after start-up.
 - b. The emission testing shall be conducted to demonstrate compliance with the total hydrocarbon/combustion efficiency requirements and particulate mass emission limitations.
 - c. The following test method(s) shall be employed to demonstrate compliance:

for the total hydrocarbon/combustion efficiency requirements, the test methods included in Table 3 of 40 CFR Part 63, Subpart LLLLLL; and

for particulates, Methods 1 - 5A of 40 CFR Part 60, Appendix A, and the procedures in 40 CFR Part 60.474, as applicable.

for visible particulates, Method 9 of 40 CFR Part 60, Appendix A, and the procedures in 40 CFR Part 60.11, as applicable.

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 the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Compliance shall be based on comparing the results of the performance tests to the sum of the allowable emission limitations for the emissions units that vent to the thermal incinerator and were in operation during the performance test.
- e. 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

The notification of performance test required by MACT LLLLL shall be submitted no later than 60 days prior to the proposed test date, as required by 40 CFR 63 Part 63.8692(d).

- f. 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.
- g. 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.

g) **Miscellaneous Requirements**

- (1) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the increase in 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 a permittee 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.