



John R. Kasich, Governor
 Mary Taylor, Lt. Governor
 Scott J. Nally, Director

9/25/2013

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: P0115285
 Permit Type: Administrative Modification
 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**

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.

If you have any questions, 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 W. Ahern

Michael W. Ahern, Manager

Permit Issuance and Data Management 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: P0115285
Permit Type: Administrative Modification
Issued: 9/25/2013
Effective: 9/25/2013



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

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Authorization

Facility ID: 1652050040
Facility Description: Asphalt Felts and Coatings.
Application Number(s): A0048080
Permit Number: P0115285
Permit Description: Administrative modification to replace existing thermal oxidizers with new units that control various asphalt blowing stills/convertors, tanks, and loading racks used in the production of asphalt.
Permit Type: Administrative Modification
Permit Fee: \$4,300.00
Issue Date: 9/25/2013
Effective Date: 9/25/2013

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.

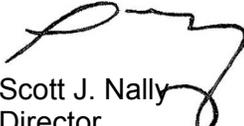
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Akron Regional Air Quality Management District
146 South High Street, Room 904
Akron, OH 44308
(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


Scott J. Nally
Director



Authorization (continued)

Permit Number: P0115285
 Permit Description: Administrative modification to replace existing thermal oxidizers with new units that control various asphalt blowing stills/convertors, tanks, and loading racks used in the production of asphalt.

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

Emissions Unit ID: J005
 Company Equipment ID: Asphalt Loading Rack #4
 Superseded Permit Number: 16-02347
 General Permit Category and Type: Not Applicable

Group Name: Convertor Group

Emissions Unit ID:	P003
Company Equipment ID:	Convertor #2
Superseded Permit Number:	P0106752
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P005
Company Equipment ID:	Convertor #1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name: Loading Racks

Emissions Unit ID:	J001
Company Equipment ID:	Asphalt Loading Rack #1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	J002
Company Equipment ID:	Asphalt Loading Rack #2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	J003
Company Equipment ID:	Asphalt Loading Rack #3
Superseded Permit Number:	P0106752
General Permit Category and Type:	Not Applicable

Group Name: Tank Group

Emissions Unit ID:	T007
Company Equipment ID:	Asphalt Storage Tank #50
Superseded Permit Number:	16-02347
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	T027
Company Equipment ID:	Asphalt Storage Tank #29
Superseded Permit Number:	P0103910
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	T029
Company Equipment ID:	Asphalt Storage Tank #44



Superseded Permit Number:	P0103645
General Permit Category andType:	Not Applicable
Emissions Unit ID:	T030
Company Equipment ID:	Asphalt Storage Tank #36
Superseded Permit Number:	P0106755
General Permit Category andType:	Not Applicable

Group Name: Tank Group

Emissions Unit ID:	T031
Company Equipment ID:	Asphalt Storage Tank #51
Superseded Permit Number:	P0106753
General Permit Category andType:	Not Applicable
Emissions Unit ID:	T032
Company Equipment ID:	Asphalt Storage Tank #59
Superseded Permit Number:	16-1825
General Permit Category andType:	Not Applicable
Emissions Unit ID:	T033
Company Equipment ID:	Asphalt Storage Tank #67
Superseded Permit Number:	16-1825
General Permit Category andType:	Not Applicable



Final Permit-to-Install
Owens Corning Roofing and Asphalt, LLC
Permit Number: P0115285
Facility ID: 1652050040
Effective Date: 9/25/2013

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) The permittee must comply with all terms and conditions of this permit. 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 (i.e., postmarked) 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) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.
- b) 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.



- c) 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.
- d) 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 (i.e., postmarked) 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).

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 party 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 Ohio EPA's "Air Services" along with the date the emissions unit(s) was permanently



removed and/or disabled. Submitting the facility profile update will constitute notifying 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.

No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

- 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 the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

13. Construction Compliance Certification

The applicant shall identify the following dates in the online 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 (i.e., postmarked), 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: P0115285
Facility ID: 1652050040
Effective Date:9/25/2013

B. Facility-Wide Terms and Conditions



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.
2. This facility is subject to the applicable requirements specified in OAC Chapter 3745-25. The emission control action programs, as specified in OAC rule 3745-25-03, shall be developed and submitted within 60 days after receiving notification from the Ohio EPA.
3. This facility is subject to the applicable requirements specified in 40 CFR 63, Subpart LLLLLL - National Emission Standards for Hazardous air Pollutants for Asphalt Processing and Asphalt Roofing Manufacturing.
 - a) For each Group 1 asphalt loading rack and blowing still:
 - (1) reduce total hydrocarbon mass emissions by 95%, or to a concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen; or
 - (2) route the emissions to a combustion device achieving a combustion efficiency of 99.5 percent.
 - b) For each Group 2 asphalt storage tank:
 - (1) limit exhaust gases to 0% opacity.

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.

The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District office or local air agency.
4. In order to maintain compliance with the air dispersion modeling requirements from the federal Prevention of Significant Deterioration (PSD) rules and OAC rules 3745-31-13 through 3745-31-20, the following exhaust stack requirements shall be maintained:
 - a) exhaust stack from the South thermal incinerator (egress point A43) that serves emissions units P003 - P005 shall be at least 120 feet above ground level and in be in compliance with all variables associated with that exhaust stack that demonstrated compliance with those requirements; and
 - b) exhaust stack from the PCC thermalincinerator (egress point A74A) that serves emission units P006, and P007 shall be at least 135 feet above ground level and in be in compliance with all variables associated with that exhaust stack that demonstrated compliance with those requirements.
5. The South thermal incinerator shall meet the following emission limitations:
 - a) Applicable Emissions Limitations and/or Work Practice Standards



	Applicable Rules/Requirements	Applicable Emissions Limitations/Work Practice Standards
a.	OAC rule 3745-31-05(F)	<p>Emissions from combustion of supplemental natural gas shall not exceed the following:</p> <p>Particulate emissions (PE) from natural gas combustion shall not exceed 7.5E-03 pound per MMBtu and 0.95 ton per year.</p> <p>Nitrogen oxides (NO_x) emissions from natural gas combustion shall not exceed 4.9E-02 pound per MMBtu and 6.23 tons per year.</p> <p>Sulfur dioxide (SO₂) emissions from natural gas combustion shall not exceed 5.88E-04 pound per MMBtu and 0.07 ton per year.</p> <p>Volatile organic compound (VOC) emissions from natural gas combustion shall not exceed 5.39E-03 pound per MMBtu and 0.68 ton per year.</p>
b.	OAC rule 3745-31-05(A)(3) ORC 3704.03(T)	Carbon monoxide (CO) emissions from natural gas combustion shall not exceed 8.24E-02 pound per MMBtu and 10.46 tons per year.

- (1) Additional Terms and Conditions
 - a. None
- b) Operational Restrictions
 - (1) None
- c) Monitoring and/or Recordkeeping Requirements
 - (1) None
- d) Reporting Requirements
 - (1) None
- e) 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:

PE from natural gas combustion shall not exceed $7.5E-03$ pound per MMBtu and 0.95 ton per year.

Applicable Compliance Method:

Compliance with the input limitation may be determined by dividing the multiplying the AP-42 emission factor for the combustion of natural gas (7.6 lb/MMscf, from Table 1.4-2) by the conversion factor of 1,020 Btu/scf.

If required, compliance with the input PE limitation shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

The annual emission limitation was developed by multiplying the input mass emission limitation by maximum input capacity (29.0MMBtu/hr) and then multiplying the result by 8760 hours per year, and then dividing by 2000. Therefore, compliance with the annual limitation shall be demonstrated if compliance with the input limitation is maintained.

b. Emission Limitation:

NO_x emissions from natural gas combustion shall not exceed $4.9E-02$ pound per MMBtu and 6.23 tons per year.

Applicable Compliance Method:

Compliance with the input limitation may be determined by dividing the multiplying the AP-42 emission factor for the combustion of natural gas (50lb/MMscf, from Table 1.4-1) by the conversion factor of 1,020 Btu/scf.

If required, compliance with the input NO_x limitation shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 4, and 7 or 7E of 40 CFR Part 60, Appendix A.

The annual emission limitation was developed by multiplying the input mass emission limitation by maximum input capacity (29.0MMBtu/hr) and then multiplying the result by 8760 hours per year, and then dividing by 2000. Therefore, compliance with the annual limitation shall be demonstrated if compliance with the input limitation is maintained.

c. Emission Limitation:

SO₂ emissions from natural gas combustion shall not exceed $5.88E-04$ pound per MMBtu and 0.07 ton per year.



Applicable Compliance Method:

Compliance with the input limitation may be determined by dividing the multiplying the AP-42 emission factor for the combustion of natural gas (0.6lb/MMscf, from Table 1.4-2) by the conversion factor of 1,020 Btu/scf.

If required, compliance with the input SO₂ limitation shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 4, and 6 or 6C of 40 CFR Part 60, Appendix A.

The annual emission limitation was developed by multiplying the input mass emission limitation by maximum input capacity (29.0MMBtu/hr) and then multiplying the result by 8760 hours per year, and then dividing by 2000. Therefore, compliance with the annual limitation shall be demonstrated if compliance with the input limitation is maintained.

d. Emission Limitation:

CO emissions from natural gas combustion shall not exceed 8.24E-02 pound per MMBtu and 10.46 tons per year.

Applicable Compliance Method:

Compliance with the input limitation may be determined by dividing the multiplying the AP-42 emission factor for the combustion of natural gas (84lb/MMscf, from Table 1.4-1) by the conversion factor of 1,020 Btu/scf.

If required, compliance with the input CO limitation shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 4, and 10 of 40 CFR Part 60, Appendix A.

The annual emission limitation was developed by multiplying the input mass emission limitation by maximum input capacity (29.0MMBtu/hr) and then multiplying the result by 8760 hours per year, and then dividing by 2000. Therefore, compliance with the annual limitation shall be demonstrated if compliance with the input limitation is maintained.

e. Emission Limitation:

VOC emissions from natural gas combustion shall not exceed 5.39E-03 pound per MMBtu and 0.68 ton per year.

Applicable Compliance Method:

Compliance with the input limitation may be determined by dividing the multiplying the AP-42 emission factor for the combustion of natural gas (5.5lb/MMscf, from Table 1.4-2) by the conversion factor of 1,020 Btu/scf.

If required, compliance with the input VOC limitation shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 4 and 18 or 25/25A of 40 CFR Part 60, Appendix A.



The annual emission limitation was developed by multiplying the input mass emission limitation by maximum input capacity (29.0MMBtu/hr) and then multiplying the result by 8760 hours per year, and then dividing by 2000. Therefore, compliance with the annual limitation shall be demonstrated if compliance with the input limitation is maintained.

- f) Miscellaneous Requirements
 - (1) None.

6. The RTO-NG thermal incinerator shall meet the following emission limitations:

- a) Applicable Emissions Limitations and/or Work Practice Standards

	Applicable Rules/Requirements	Applicable Emissions Limitations/Work Practice Standards
a.	OAC rule 3745-31-05(F)	<p>Emissions from combustion of supplemental natural gas shall not exceed the following:</p> <p>PE from natural gas combustion shall not exceed 7.5E-03 pound per MMBtu and 0.05 ton per year.</p> <p>NO_x emissions from natural gas combustion shall not exceed 4.9E-02 pound per MMBtu and 0.34 ton per year.</p> <p>SO₂emissions from natural gas combustion shall not exceed 5.88E-04 pound per MMBtu and 0.004 ton per year.</p> <p>CO emissions from natural gas combustion shall not exceed 8.24E-02 pound per MMBtu and 0.58 ton per year.</p> <p>VOC emissions from natural gas combustion shall not exceed 5.39E-03 pound per MMBtu and 0.04 ton per year.</p>

- (1) Additional Terms and Conditions
 - a. None
- b) Operational Restrictions
 - (1) None



c) Monitoring and/or Recordkeeping Requirements

(1) None.

d) Reporting Requirements

(1) None

e) 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:

PE from natural gas combustion shall not exceed 7.5E-03 pound per MMBtu and 0.05 ton per year.

Applicable Compliance Method:

Compliance with the input limitation may be determined by dividing the multiplying the AP-42 emission factor for the combustion of natural gas (7.6 lb/MMscf, from Table 1.4-2) by the conversion factor of 1,020 Btu/scf.

If required, compliance with the input PE limitation shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

The annual emission limitation was developed by multiplying the input mass emission limitation by maximum input capacity (1.6MMBtu/hr) and then multiplying the result by 8760 hours per year, and then dividing by 2000. Therefore, compliance with the annual limitation shall be demonstrated if compliance with the input limitation is maintained.

b. Emission Limitation:

NO_x emissions from natural gas combustion shall not exceed 4.9E-02 pound per MMBtu and 0.34 ton per year.

Applicable Compliance Method:

Compliance with the input limitation may be determined by dividing the multiplying the AP-42 emission factor for the combustion of natural gas (50lb/MMscf, from Table 1.4-1) by the conversion factor of 1,020 Btu/scf.

If required, compliance with the input NO_x limitation shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 4, and 7 or 7E of 40 CFR Part 60, Appendix A.

The annual emission limitation was developed by multiplying the input mass emission limitation by maximum input capacity (1.6MMBtu/hr) and then



multiplying the result by 8760 hours per year, and then dividing by 2000. Therefore, compliance with the annual limitation shall be demonstrated if compliance with the input limitation is maintained.

c. Emission Limitation:

SO₂ emissions from natural gas combustion shall not exceed 5.88E-04 pound per MMBtu and 0.004 ton per year.

Applicable Compliance Method:

Compliance with the input limitation may be determined by dividing the multiplying the AP-42 emission factor for the combustion of natural gas (0.6lb/MMscf, from Table 1.4-2) by the conversion factor of 1,020 Btu/scf.

If required, compliance with the input SO₂ limitation shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 4, and 6 or 6C of 40 CFR Part 60, Appendix A.

The annual emission limitation was developed by multiplying the input mass emission limitation by maximum input capacity (1.6MMBtu/hr) and then multiplying the result by 8760 hours per year, and then dividing by 2000. Therefore, compliance with the annual limitation shall be demonstrated if compliance with the input limitation is maintained.

d. Emission Limitation:

CO emissions from natural gas combustion shall not exceed 8.24E-02 pound per MMBtu and 0.58 ton per year.

Applicable Compliance Method:

Compliance with the input limitation may be determined by dividing the multiplying the AP-42 emission factor for the combustion of natural gas (84lb/MMscf, from Table 1.4-1) by the conversion factor of 1,020 Btu/scf.

If required, compliance with the input CO limitation shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 4, and 10 of 40 CFR Part 60, Appendix A.

The annual emission limitation was developed by multiplying the input mass emission limitation by maximum input capacity (1.6MMBtu/hr) and then multiplying the result by 8760 hours per year, and then dividing by 2000. Therefore, compliance with the annual limitation shall be demonstrated if compliance with the input limitation is maintained.

e. Emission Limitation:

VOC emissions from natural gas combustion shall not exceed 5.39E-03 pound per MMBtu and 0.04 ton per year.



Applicable Compliance Method:

Compliance with the input limitation may be determined by dividing the multiplying the AP-42 emission factor for the combustion of natural gas (5.5lb/MMscf, from Table 1.4-2) by the conversion factor of 1,020 Btu/scf.

If required, compliance with the input VOC limitation shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 4 and 18 or 25/25A of 40 CFR Part 60, Appendix A.

The annual emission limitation was developed by multiplying the input mass emission limitation by maximum input capacity (1.6MMBtu/hr) and then multiplying the result by 8760 hours per year, and then dividing by 2000. Therefore, compliance with the annual limitation shall be demonstrated if compliance with the input limitation is maintained.

- f) Miscellaneous Requirements
 - (1) None.



Final Permit-to-Install
Owens Corning Roofing and Asphalt, LLC
Permit Number: P0115285
Facility ID: 1652050040
Effective Date: 9/25/2013

C. Emissions Unit Terms and Conditions



1. J005, Asphalt Loading Rack #4

Operations, Property and/or Equipment Description:

Asphalt Loading Rack #4 Controlled with a 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.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE/PM10) shall not exceed 5.44 pounds per hour. Sulfur dioxide (SO2) emissions shall not exceed 1.16 pounds per hour. Carbon monoxide (CO) emissions shall not exceed 0.50 pound per hour. Hydrogen sulfide (H2S) emissions shall not exceed 0.07 pound per hour. Volatile organic compound (VOC) emissions shall not exceed 19.29 pounds per hour. See Section B)(5)-(6) for the natural gas combustion emission limits for the thermal incinerators. Visible PE from the exhaust stack shall not exceed 10% opacity, as a 6-minute average.
b.	OAC rule 3745-17-07(A)(1)	The emissions limitations specified by these rules are less stringent than the emissions limitations established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rules 3745-31-13 through 20	The emissions per rolling, 12-month summation shall not exceed the following:



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		CO - 0.52 ton per year; VOC - 20.16 ton per year; and SO2 - 1.22 ton per year. The destruction efficiency shall not be less than 95% for CO and VOC. See c)(1) below.
d.	OAC rule 3745-31-05(D)	The emissions per rolling, 12-month summation shall not exceed the following: PE/PM10 - 5.69 ton per year; and H2S - 0.07 ton per year. See c)(1) below.
e.	40 CFR Part 63, Subpart LLLLLL	Exempt. Group 2 asphalt loading rack.
f.	OAC rule 3745-17-07(B)	Visible PE of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
g.	OAC rule 3745-17-08	The permittee shall employ overhead filling of tank-trucks to minimize or eliminate fugitive emissions.
h.	OAC rule 3745-17-11(B)(1)	PE shall not exceed 3.05 pounds per hour (based on an uncontrolled mass rate of emissions for J005 of 15.3 pounds per hour, and the use of Curve P-1 of Figure II)

(2) Additional Terms and Conditions

- a. All of the captured VOC emissions from this emissions unit shall be vented to the/a thermal incinerator that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.

c) Operational Restrictions

- (1) The total amount of asphalt loaded from this emissions unit shall not exceed 275,000 tons per year, as a rolling 12-month summation. The permittee has existing asphalt production records and; therefore, does not need to be limited to first year asphalt throughput amounts.



d) Monitoring and/or Recordkeeping Requirements

- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit(s) controlled by the thermal incinerator is/are in operation, shall not be less than 1450 degrees Fahrenheit or more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance.

[Note: This Group 2 loading rack is not subject to 40 CFR 63, Subpart LLLLL requirements. However, the RTO-NG and South thermal incinerators also control emission sources subject to 40 CFR 63, Subpart LLLLL that are subject to more stringent MACT temperature monitoring requirements.]

- (2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the operating range for the static pressure of the closed vent system for the RTO-NG thermal incinerator or the South thermal incinerator shall be continuously maintained within the normal established operating range while the emissions unit is in operation.
- (3) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal incinerator when the emissions unit(s) is/are in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:
 - a. all 3-hour blocks of time, when the emissions unit(s) controlled by the thermal incinerator was/were in operation, during which the average combustion temperature within the thermal incinerator was less than 1450 degrees Fahrenheit or more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance; and
 - b. a log (date and total time) of the downtime or bypass of the capture (collection) system and thermal incinerator, and/or downtime of the monitoring equipment, when the associated emissions unit(s) was/were in operation.

These records shall be maintained at the facility for a period of three years.

- (4) Whenever the monitored average combustion temperature within the thermal incinerator deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:



- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the temperature readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

- (5) The permittee shall operate and maintain a continuous monitor and recorder which measures the static pressure in the closed vent system for the thermal incinerator(s) 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 falls below normal operating levels.

- (6) The permittee shall maintain monthly records of the following information:
 - a. the asphalt throughput rates, in tons, for each month;
 - b. the PE/PM10, H₂S, CO, VOC, and SO₂ emissions, in tons (both process and products of combustion from the thermal incinerator) for each month based on the results of the latest stack test;
 - c. the rolling, 12-month summation of the asphalt monthly throughput rates, in tons; and
 - d. the rolling, 12-month summation of the PE/PM10, H₂S, CO, VOC, and SO₂ emission rates, in tons (both process and products of combustion from the thermal incinerator).
 - (7) 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 and any visible emissions of fugitive dust. 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.
- 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 asphalt throughput limitation;
 - b. all exceedances of the rolling, 12-month emissions limitations (both process and products of combustion from the thermal incinerator); and
 - c. all periods of time during which the static pressure in the closed vent system for the thermal incinerator exceeded the normal operating range; and



Incinerator Requirements

- d. 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;
- e. 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;
- f. each incident of deviation described in "e" or "f" (above) where a prompt investigation was not conducted;
- g. each incident of deviation described in "e" or "f" 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
- h. each incident of deviation described in "e" or "f" 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 annual reports that specify the total PE/PM₁₀, SO₂, CO, VOC, and H₂S emissions from this emissions unit for the previous calendar year. These reports shall be submitted by April 15th of each year. This reporting requirement may be satisfied by including and identifying the specific emissions data in the annual Fee Emission Reports.
- (4) The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the stack serving this emissions unit or any visible emissions of fugitive dust were observed 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.
- (5) The permittee shall submit, within 180 days of startup of the new RTO-NG and South Incinerator, documentation of the determined static pressure normal operating range.

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 from the exhaust stack shall not exceed 10% opacity, as a 6-minute average.



Applicable Compliance Method:

If required, compliance with the visible PE limitation shall be demonstrated through the results of visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

b. Emission Limitations:

PE/PM10 shall not exceed 3.05 pounds per hour.

PE/PM10 shall not exceed 5.69 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

If required, compliance with the hourly limitation shall be demonstrated based on the results of stack testing performed in accordance with Methods 1 – 5 of 40 CFR Part 60, Appendix A.

Compliance with the annual limitation shall be demonstrated as long as compliance with the hourly and annual throughput limitations is maintained.

c. Emission Limitations:

SO₂ emissions shall not exceed 1.16 pounds per hour.

SO₂ emissions shall not exceed 1.22 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

If required, compliance with the hourly limitation shall be demonstrated based on the results of stack testing performed in accordance with Methods 1 - 4, and 6 or 6C of 40 CFR Part 60, Appendix A.

Compliance with the annual limitation shall be demonstrated as long as compliance with the hourly and annual throughput limitations is maintained.

d. Emission Limitations:

CO emissions shall not exceed 0.50 pound per hour.

CO emissions shall not exceed 0.52 ton per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

If required, compliance with the hourly limitation shall be demonstrated based on the results of stack testing performed in accordance with Methods 1 - 4, and 10 or 10B of 40 CFR Part 60, Appendix A.



Compliance with the annual limitation shall be demonstrated as long as compliance with the hourly and annual throughput limitations is maintained.

e. Emission Limitations:

VOC emissions shall not exceed 19.29 pounds per hour.

VOC emissions shall not exceed 20.16 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

If required, compliance with the hourly limitation shall be demonstrated based on the results of stack testing performed in accordance with Methods 1 - 4 and 18 or 25/25A of 40 CFR Part 60, Appendix A.

Compliance with the annual limitation shall be demonstrated as long as compliance with the hourly and annual throughput limitations is maintained.

f. Emission Limitations:

H₂S emissions shall not exceed 0.07 pound per hour.

H₂S emissions shall not exceed 0.07 tons per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

If required, compliance with the hourly limitation shall be demonstrated based on the results of stack testing performed in accordance with Methods 1 - 4, and 15 of 40 CFR Part 60, Appendix A.

Compliance with the annual limitation shall be demonstrated as long as compliance with the hourly and annual throughput limitations is maintained.

g. Emission Limitation:

Visible PE of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance with the visible fugitive PE limitation shall be demonstrated through the results of visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

g) Miscellaneous Requirements

- (1) None.



2. Emissions Unit Group -Converter Group: P003 and P005

EU ID	Operations, Property and/or Equipment Description
P003	Converter #2 - Asphalt blowing still controlled by South Thermal Incinerator
P005	Converter #1 - Asphalt blowing still controlled by South 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.	OAC rule 3745-31-05(D)	For P003: The emissions per rolling, 12-month period shall not exceed: CO - 66.26 tons per year; VOC - 7.61 tons per year; SO ₂ - 65.38 tons per year; PE/PM ₁₀ - 13.45 tons per year; and H ₂ S - 0.67 ton per year. See c)(1) below.
b.	OAC rule 3745-31-05(A)(3)	For P005: Particulate emissions (PE) shall not exceed 28.84 tons per year.
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 P005 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)



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		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 LLLLL	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 LLLLL of 40 CFR Part 63 - Applicability of General Provisions to Subpart LLLLL shows which parts of the General Provisions in 40 CFR 63.1 - 15 apply.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The total, annual asphalt processed in emissions units P003, P006 and P007, combined, shall not exceed 395,312 tons per year, based upon a rolling, 12-month summation of the asphalt processed monthly rates. The permittee has existing asphalt production records and, therefore, does not need to be limited to the first year monthly asphalt throughput amounts.

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the operating range for the static pressure in the closed vent system for the South thermal incinerator shall be continuously maintained within the normal established operating range while the emission unit is in operation.

(2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the South 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 1450 degrees Fahrenheit or 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 closed vent system for 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 closed vent system for the thermal incinerator falls below normal operating levels.

- (4) The permittee shall maintain monthly records of the following information:
- a. the asphalt throughput rate for P003 (both with and without the use of a ferric chloride catalyst), in tons, for each month;
 - b. the rolling, 12-month summation of the asphalt monthly throughput rates for P003, P006, and P007, combined, in tons;
 - c. the PE/PM10, H₂S, CO, VOC, and SO₂ emissions (for both the process and the products of combustion from the thermal incinerator), in tons, for each month for P003; and
 - d. the rolling, 12-month summation of the PE/PM10, H₂S, CO, VOC, and SO₂ emission rates, in tons for P003 (for both the process and the products of combustion from the thermal incinerator).
- (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 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 (i.e., 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 asphalt processing rate limitation for P003, P006, and P007;
 - b. all exceedances of the rolling, 12-month emissions limitations for P003 (for both the process and the products of combustion from the thermal incinerator);
 - c. all periods of time during which the static pressure in the closed vent system for the thermal incinerator exceeded the normal operating range; and

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- d. 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;
- e. 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;
- f. each incident of deviation described in "d" or "e" (above) where a prompt investigation was not conducted;
- g. each incident of deviation described in "d" or "e" 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
- h. each incident of deviation described in "d" or "e" 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 annual reports that specify the total PE/PM10, SO₂, CO, VOC, and H₂S emissions from P003 for the previous calendar year. These reports shall be submitted by April 15th of each year. This reporting requirement may be satisfied by including and identifying the specific emissions data in the annual Fee Emission Reports.
- (4) 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.

- (5) 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.
- (6) The permittee shall submit, within 180 days of startup of the South Incinerator, documentation of the determined static pressure normal operating range.

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 through the results of visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

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 1-5, of 40 CFR Part 60, Appendix A and the requirements of section f)(2).

c. Emission Limitations:

For P003:

PE/PM10 shall not exceed 13.45 tons per year as a rolling, 12-month summation

H₂S shall not exceed 0.67 tons per year as a rolling, 12-month summation

CO shall not exceed 66.26 tons per year as a rolling, 12-month summation



VOC shall not exceed 7.61 tons per year as a rolling, 12-month summation

SO₂ shall not exceed 65.38 tons per year as a rolling, 12-month summation

Applicable Compliance Method:

Compliance with the rolling, 12-month summation shall be demonstrated as long as compliance with the rolling, 12-month production/throughput limitation is maintained.

d. Emission Limitation:

PE shall not exceed 11.5 pounds per hour from P003, P004, and P005, 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.

e. Emission Limitation:

For P005: PE shall not exceed 28.84 tons per year.

Applicable Compliance Method:

Compliance with the annual mass emission limitation shall be determined by multiplying the results of the most recent stack test (in pounds per hour of PE) by 8,760 hours of operation per year, and then dividing by 2,000 pounds per ton.

f. 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.

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

Where:

Mthc = 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 (3.00E-05) (ppmv)⁻¹ (gram-mole / standard cubic meter) (kilogram / gram) (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.

To determine compliance with the total hydrocarbon destruction efficiency standard for a combustion device that does not use auxiliary fuel, Equation 6 of this section must be used, as follows:

$$THC\ DE = [(CO + CO_2) / (CO + CO_2 + THC)] \quad (\text{Eq. 6})$$



Where

THC DE = THC destruction 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 LLLLL;

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 LLLLL; 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 LLLLL.

- (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 of the new thermal incinerator.
 - b. The emission testing shall be conducted to demonstrate compliance with the total hydrocarbon/combustion efficiency requirements.
 - 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 LLLLL.

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).



- 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) None



3. Emissions Unit Group - Loading Racks: J001, J002, and J003

EU ID	Operations, Property and/or Equipment Description
J001	Asphalt Loading Rack #1 Controlled with a Thermal Incinerator
J002	Asphalt Loading Rack #2 Controlled with a Thermal Incinerator
J003	Asphalt Loading Rack #3 Controlled with a 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.	OAC rule 3745-31-05(A)(3)	See c)(2) below.
b.	OAC rule 3745-31-05(D)	The emissions from emissions unit J003 per rolling, 12-month period shall not exceed the following: CO - 0.17 tons per year; VOC - 6.42 tons per year; SO ₂ - 0.39 tons per year. PE/PM10 - 1.81 tons per year; and H ₂ S - 0.02 tons per year. See c)(3) below.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
d.	OAC rule 3745-17-07(B)	Visible PE of fugitive dust shall not exceed 20% opacity as a 3-minute average.
e.	OAC rule 3745-17-08(B)	The permittee shall employ overhead filling of tank-trucks to minimize or eliminate fugitive emissions.
f.	OAC rule 3745-17-11	For J001 and J002:



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		PE shall not exceed 47.53 pounds per hour (Based on process weight rate of 7.6 tph and Table I). For J003: PE shall not exceed 2.7 pounds per hour (based on an uncontrolled mass emission rate for J003 of 13.3 pounds per hour and the use of Curve P-1 of Figure II)
g.	40 CFR Part 63, Subpart LLLLLL	For J001 and J002: Exempt. Group 2 asphalt loading racks. See c)(1) below. For J003: 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%.
h.	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 to J003.

(2) Additional Terms and Conditions

a. All of the VOC emissions from this emissions unit shall be vented to the/a thermal incinerator that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.

c) Operational Restrictions

- (1) The permittee shall not load asphalt with a temperature of 500 degrees F or greater, or with a true vapor pressure of 1.5 psia or greater in emissions units J001 and J002.
- (2) The permittee shall operate only two (2) of the following emissions units simultaneously: J001, J002, and J003.
- (3) The asphalt throughput for emissions unit J003 shall not exceed 87,500 tons per year, based upon a rolling, 12-month summation of the monthly asphalt throughputs. The



permittee has existing asphalt production records and, therefore, does not need to be limited to the first year monthly asphalt throughput amounts.

- (4) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the operating range for the static pressure of the closed vent system for the RTO-NG thermal incinerator or the South thermal incinerator shall be continuously maintained within the normal established operating range while the emissions unit is in operation.
 - (5) For J001 and J002: In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the thermal incinerator, for any 3-hour block of time when J001 and/or J002 is/are in operation, shall not be less than 1450 degrees Fahrenheit or more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance.
 - (6) For J003: In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the thermal incinerator, as a 3-hour average when J003 is in operation, shall not be less than 1450 degrees Fahrenheit or the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance.
- d) **Monitoring and/or Recordkeeping Requirements**
- (1) For J001 and J002: The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal incinerator when the emissions unit(s) is/are in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:
 - a. all 3-hour blocks of time, when the emissions unit(s) controlled by the thermal incinerator was/were in operation, during which the average combustion temperature within the thermal incinerator was more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance; and
 - b. a log (date and total time) of the downtime or bypass of the capture (collection) system and thermal incinerator, and/or downtime of the monitoring equipment, when the associated emissions unit(s) was/were in operation.



These records shall be maintained at the facility for a period of three years.

- (2) For J001 and J002: Whenever the monitored average combustion temperature within the thermal incinerator deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
- a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;
 - c. the date the investigation was conducted;
 - d. the name(s) of the personnel who conducted the investigation; and
 - e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the temperature readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.



- (3) For J001 and J002: The permittee shall maintain daily records that document the maximum temperature and the maximum true vapor pressure of the asphalt loaded.
- (4) The permittee shall operate and maintain a continuous monitor and recorder which measures the static pressure in the vacuum manifold 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 vacuum manifold static pressure falls below normal operating levels.
- (5) The permittee shall maintain monthly records of the following information:
 - a. the asphalt throughput rates for J003, in tons, for each month;
 - b. operating times of emission units Loading Rack #1 (J001), Loading Rack #2 (J002), and Loading Rack #3 (J003);
 - c. the PE/PM10, H₂S, CO, VOC, and SO₂ emissions for J003, in tons;
 - d. the rolling, 12-month summation of the asphalt monthly throughput rates for J003, in tons; and
 - e. the rolling, 12-month summation of the PE/PM10, H₂S, CO, VOC, and SO₂ emission rates for J003, in tons.
- (6) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions of fugitive dust and any visible particulate emissions from the stacks serving these emissions units. 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.
- (7) For J003, 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.]

- (8) The permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) for J003 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 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.
- (9) For each temperature monitoring device for J003, 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.
- (10) As an option to installing the CPMS specified in section d)(7) for J003, 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.
- (11) For each monitoring system for J003, 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 (i.e., 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).
- (12) The site-specific monitoring plan for J003 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).
- (13) The permittee must conduct a performance evaluation of each CPMS, CEMS, or COMS in accordance with the site-specific monitoring plan for J003.
- (14) The permittee must operate and maintain the CPMS, CEMS, or COMS in continuous operation according to the site-specific monitoring plan for J003.



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 periods of time when more than 2 of the following emissions units operated simultaneously: J001, J002, J003;
 - b. all exceedances of the rolling, 12-month asphalt throughput limitation for J003;
 - c. all exceedances of the rolling, 12-month emissions limitations for J003;
 - d. all periods of time during which the static pressure in the vacuum manifold exceeded the normal operating range; and

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- e. For J001 and J002: 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(s);
- f. For J001 and J002: 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;
- g. For J001 and J002: each incident of deviation described in "e" or "f" (above) where a prompt investigation was not conducted;
- h. For J001 and J002: each incident of deviation described in "e" or "f" 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
- i. For J001 and J002: each incident of deviation described in "e" or "f" 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 notify the Director (the Akron Regional AQMD) in writing if asphalt with a temperature of 500 degrees F or greater or with a true vapor pressure of 1.5 psia or greater is employed in emissions units J001 and J002. The notification shall include a copy of such record and shall be sent to the Director (the Akron Regional AQMD) within 45 days after such an occurrence.



- (4) The permittee shall submit annual reports that specify the total PE/PM10, SO₂, CO, VOC, and H₂S emissions from emissions unit J003 for the previous calendar year. These reports shall be submitted by April 15th of each year. This reporting requirement may be satisfied by including and identifying the specific emissions data in the annual Fee Emission Reports.
 - (5) The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the stacks serving these emissions units or any visible emissions of fugitive dust were observed 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.
 - (6) 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.
 - (7) The permittee shall submit, within 180 days of startup of the new RTO-NG and South Incinerator, documentation of the determined static pressure normal operating range.
- 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 from the exhaust stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance with the visible PE limitation shall be demonstrated through the results of visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.
 - b. Emission Limitation:

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

Applicable Compliance Method:

If required, compliance with the visible PE limitation shall be demonstrated through the results of visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.



c. Emission Limitations:

PE shall not exceed 47.53 pounds per hour each from J001 and J002. PE shall not exceed 2.7 pounds per hour from J003.

Applicable Compliance Method:

If required, compliance shall be determined based upon the results of emission testing conducted in accordance with Methods 1-5, of 40 CFR Part 60, Appendix A.

d. Emission Limitation:

For J003:

PE/PM10 shall not exceed 1.81 tons per year as a rolling, 12-month summation

H₂S shall not exceed 0.02 tons per year as a rolling, 12-month summation

CO shall not exceed 0.17 tons per year as a rolling, 12-month summation

VOC shall not exceed 6.42 tons per year as a rolling, 12-month summation

SO₂ shall not exceed 0.39 tons per year as a rolling, 12-month summation

Applicable Compliance Method:

Compliance with the rolling 12-month limitations above shall be demonstrated as long as compliance with the rolling 12-month production/throughput limitation is maintained.

e. Emission Limitation:

For J003:

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:

$$RE = [(M_{thci} - M_{thco}) / (M_{thci})] * 100 \quad (\text{Eq. 3})$$

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.

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

Where:

Mthc = 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 LLLLL; 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 LLLLL; and

K = Unit conversion constant (3.00E-05) (ppmv)⁻¹ (gram-mole / standard cubic meter) (kilogram / gram) (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 LLLLL;

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 LLLLL; 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 LLLLL.

To determine compliance with the total hydrocarbon destruction efficiency standard for a combustion device that does not use auxiliary fuel, Equation 6 of this section must be used, as follows:

$$THC\ DE = [(CO + CO_2) / (CO + CO_2 + THC)] \quad (\text{Eq. 6})$$



Where

THC DE = THC destruction 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 J003 in accordance with the following requirements:

- a. The emission testing shall be conducted within 180 days after start-up of the new thermal incinerator.
- b. The emission testing shall be conducted to demonstrate compliance with the total hydrocarbon/combustion efficiency requirements.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

The test methods included in Table 3 of 40 CFR Part 63, Subpart LLLLLL.

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).



- 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) None.



4. Emissions Unit Group -Tank Group: T007, T027, T029, and T030

EU ID	Operations, Property and/or Equipment Description
T007	Asphalt Storage Tank #50 - 60,000 gallon asphalt storage tank controlled with a thermal incinerator
T027	Asphalt Storage Tank #29 - 100,000 gallon asphalt storage tank controlled with a thermal incinerator
T029	Asphalt Storage Tank #44 - 400,000 gallon asphalt storage tank controlled with a thermal incinerator
T030	Asphalt Storage Tank #36 - 100,000 gallon asphalt storage tank controlled with a 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.	OAC rule 3745-31-05(A)(3)	<p>For T030:</p> <p>Particulate emissions (PE/PM10) shall not exceed 0.11 pound per hour, and 0.48 ton per year.</p> <p>Sulfur dioxide (SO2) emissions shall not exceed 1.51 pounds per hour, and 6.61 tons per year.</p> <p>Carbon monoxide (CO) emissions shall not exceed 0,32 pound per hour, and 1.40 tons per year.</p> <p>Volatile organic compound (VOC) emissions shall not exceed 0.40 pound per hour, and 1.75 tons per year.</p> <p>For T027:</p> <p>Particulate emissions (PE) shall not</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>exceed 0.21 ton per year.</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 1.24 tons per year.</p> <p>Carbon monoxide (CO) emissions shall not exceed 0.15 ton per year.</p> <p>Volatile organic compound (VOC) emissions shall not exceed 0.74 ton per year.</p> <p>For T029:</p> <p>PE shall not exceed 0.06 ton per year.</p> <p>SO₂ emissions shall not exceed 0.94 ton per year.</p> <p>CO emissions shall not exceed 0.07 ton per year.</p> <p>VOC emission shall not exceed 0.21 ton per year.</p> <p>For T007:</p> <p>Particulate emissions (PE/PM₁₀) shall not exceed 0.01 pound per hour, and 0.06 ton per year.</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 0.21 pound per hour.</p> <p>Carbon monoxide (CO) emissions shall not exceed 0.02 pound per hour.</p> <p>Volatile organic compound (VOC) emissions shall not exceed 0.05 pound per hour.</p> <p>Hydrogen sulfide (H₂S) emissions shall not exceed 0.006 pound per hour and 0.03 ton per year.</p> <p>See Section B)(5)-(6) for the fossil fuel combustion emission limits for the</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		thermal incinerators.
b.	OAC rules 3745-31-13 through 3745-31-20	<p>The emissions from T007 shall not exceed the following, based upon rolling, 12-month summations:</p> <p>CO - 0.07 ton per year; VOC - 0.21 ton per year; and SO2 - 0.94 ton per year.</p> <p>The overall control efficiency (including capture and control) shall not be less than 95% for CO and VOC for T007.</p>
c.	OAC rule 3745-17-07(A)	The emission limitations specified by these rules are less stringent than the emissions limitations established pursuant to 40 CFR 60, Subpart UU.
d.	OAC rule 3745-17-11(B)	<p>The emission limitations specified by these rules are less stringent than the emissions limitations established pursuant to OAC rule 3745-31-05(A)(3). (T007 & T030)</p> <p>PE shall not exceed 54.27 pounds per hour. (based on a process weight rate of 134.06 tons per hour and Table I) (T027 & T029)</p>
e.	OAC rule 3745-21-09(L)(1)	<p>Exempt.</p> <p>Asphalt has a vapor pressure less than 1.52 pounds per square inch absolute. See c)(3).</p>
f.	40 CFR Part 60, Subpart Kb	<p>95% VOC control efficiency.</p> <p>See b)(2)c below.</p>
g.	40 CFR Part 60, Subpart UU	Visible emissions to the atmosphere shall not exceed 0% opacity, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for cleaning. The control device shall not be bypassed during this 15-minute period.
h.	40 CFR Part 63, Subpart LLLLL	Exempt pursuant to 40 CFR 63,8681(c) since subject to 40 CFR Part 60, Subpart Kb.
i.	OAC rule 3745-21-21(C)(4)	See b)(2)c and e)(5) below.



(2) Additional Terms and Conditions

- a. T030: The emissions unit shall be equipped with a submerged fill pipe and shall be vented to a thermal incinerator to control asphalt fumes.
- b. T027 and T029: The emissions unit shall be equipped with a submerged fill pipe.
- c. The permittee shall employ a closed vent system and control device meeting the following specifications:
 - i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in 40 CFR Part 60, Subpart VV Section 60.485(b).
 - ii. The control device shall be designated and operated to reduce inlet VOC emissions by 95 percent or greater.

c) Operational Restrictions

- (1) The permittee of each source that is equipped with a closed vent system and control device as required in Section 60.112b(a)(3) or (b)(2) of 40 CFR Part 60 (other than a flare) is exempt from Section 60.8 of the General Provisions and shall meet the following requirements:
 - a. Submit for approval by the Administrator as an attachment to the notification required by Section 60.7(a)(1) of 40 CFR Part 60, or if the facility is exempt from Section 60.7(a)(1) of 40 CFR Part 60, as an attachment to the notification required by Section 60.7(a)(2) of 40 CFR Part 60, an operating plan containing the information listed below.
 - i. Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 second and a minimum temperature of 816 degrees Celsius is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.
 - ii. A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and



an explanation of the criteria used for selection of that parameter (or parameters).

- b. Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (a) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.
- (2) The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than 1.52 pounds per square inch absolute, unless such tank is designed or equipped in accordance with the requirements of paragraph (L)(1) of OAC rule 3745-21-09.
- d) Monitoring and/or Recordkeeping Requirements
- (1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit(s) controlled by the thermal incinerator is/are in operation, shall not be less than 1450 degrees Fahrenheit or more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance.

[Note: These tanks are exempt from 40 CFR 63, Subpart LLLLL requirements. However, the RTO-NG and South thermal incinerators also control emission sources subject to 40 CFR 63, Subpart LLLLL that are subject to more stringent temperature monitoring requirements.]
 - (2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the operating range for the static pressure in the closed vent system for the RTO-NG or the South thermal incinerator shall be continuously maintained within the normal established operating range when T007 is in operation, and the acceptable range established for the static pressure in the duct downstream of the PCC thermal incinerator is between 0.1 to 12 inches of water, vacuum, when T007 is in operation.
 - (3) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal incinerator when the emissions unit(s) is/are in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:
 - a. all 3-hour blocks of time, when the emissions unit(s) controlled by the thermal incinerator was/were in operation, during which the average combustion



temperature within the thermal incinerator was less than 1450 degrees Fahrenheit or more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance; and

- b. a log (date and total time) of the downtime or bypass of the capture (collection) system and thermal incinerator, and/or downtime of the monitoring equipment, when the associated emissions unit(s) was/were in operation.

These records shall be maintained at the facility for a period of three years.

- (4) Whenever the monitored average combustion temperature within the thermal incinerator deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the temperature readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.



The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

- (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) For T007 and T030: The permittee shall maintain records of the following information for the fixed roof tank:
 - a. the types of petroleum liquids stored in the tank; and
 - b. the maximum true vapor pressure (in pounds per square inch absolute), as stored, of each petroleum liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.

These records shall be maintained for at least 5 years and shall be made available to the Director or his representative upon verbal or written request.

- (7) The permittee shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for the life of the emissions unit.

- (8) The permittee shall operate and maintain a continuous monitor and recorder which measures the static pressure in the duct downstream or the closed vent system for the thermal incinerator while T007 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 or the closed vent system for the thermal incinerator falls below normal operating levels when T007 was in operation.

- (9) The permittee shall maintain monthly records of the following information for T007:
- a. the CO, VOC, and SO₂ emissions, in tons, from both the tank (T007) and products of combustion of the thermal incinerator for each month based upon the results of the latest stack test; and
 - b. the rolling, 12-month summation of CO, VOC, and SO₂ emissions in tons from both the tank (T007) and products of combustion of the thermal incinerator.

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. For T007: all exceedances of the rolling, 12-month CO, VOC, and SO₂ emissions limitations from both the tank and products of combustion of the thermal incinerator;
 - b. For T007: all periods of time during which the static pressure in the duct downstream or closed vent system for 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 "a" or "b"(above) where a prompt investigation was not conducted;
- f. each incident of deviation described in "a" or "b" 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 "a" or "b" 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 service this emissions unit or any visible emissions of fugitive dust were observed 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) If the permittee places, stores, or holds, in the fixed roof tank, any petroleum liquid with a true vapor pressure that is greater than 1.52 pounds per square inch absolute and such tank does not comply with the requirements of paragraph (L)(1) of OAC rule 3745-21-09, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence. The date that such petroleum liquid was first stored in the tank, the date removed (if removed), the total gallons throughput of each petroleum liquid exceeding this vapor pressure, and the proposed method of compliance shall be included in the report.
 - (5) The permittee shall submit, for approval by the director, an operating plan containing the information specified in OAC rule 3745-21-21(C)(4)(d)(i) – (ii).
 - (6) The permittee shall submit, within 180 days of startup of the new RTO-NG and South Incinerator, documentation of the determined static pressure normal operating range.
- 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. Emissions Limitations:

PE/PM10 shall not exceed 0.01 pound per hour, and 0.06 ton per year. (T007)

PE/PM10 shall not exceed 0.11 pound per hour, and 0.48 ton per year. (T030)

PE shall not exceed 0.21 ton per year. (T027)

PE shall not exceed 0.06 ton per year. (T029)

Applicable Compliance Method:

If required, compliance with the hourly limitations for T007 and T030 shall be determined through the results of testing in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

For annual emissions, compliance shall be determined based on the following equation:



*Controlled particulate emissions (tpy) = controlled VOC emissions (tpy) * (0.28)*
 From testing, it has been determined that 28% of VOC emissions are considered particulate emissions.

b. Emissions Limitations:

SO2 emissions shall not exceed 1.51 pounds per hour, and 6.61 tons per year. (T030)

SO2 emissions shall not exceed 1.24 tons per year. (T027)

SO2 emissions shall not exceed 0.94 ton per year. (T029)

SO2 emissions shall not exceed 0.21 pound per hour, and 0.94 tons per year based upon a rolling, 12-month summation (T007).

Applicable Compliance Method:

If required, compliance with the hourly limitation for T030 or T007 shall be determined through the results of emission testing conducted in accordance with Methods 1 through 4, and 6 or 6C of 40 CFR Part 60, Appendix A.

$$SO2 \text{ emissions (tpy)} = [Uncontrolled H2S \text{ emissions (tpy)} - Controlled H2S \text{ emission (tpy)}] * 1.88$$

Where

$$Uncontrolled H2S \text{ emissions (tpy)} = EF * C * (0.028 \text{ m}^3/\text{cf}) * (\text{lb}/454,000 \text{ mg}) * \text{Flow} * (60 \text{ min}/\text{hr}) * (8,760 \text{ hr}/\text{yr}) / 2000 (\text{lb}/\text{ton})$$

Where

EF = 1.39 mg/m³/ppm emission factor from AP-42 for H2S;

C = pollutant concentration (ppm) from correlation of concentration of H2S based on the LEL of asphalt = 2.5* %LEL + 340 for roofing or oxidized asphalt
 = 515 ppm (T027)
 = 390 ppm (T029) (T030) (T007);

Flow = vent flow (cfm)
 = 60 cfm.

$$Controlled H2S \text{ emissions (tpy)} = Uncontrolled H2S \text{ emissions (tpy)} * (1 - \text{control efficiency}) * (\text{capture efficiency})$$

Where

Control efficiency = 95%, or as determined from most recent stack test; and
 Capture efficiency = 100%, assumed since closed vent system vented to control device.



c. Emissions Limitations:

CO emissions shall not exceed 0.32 pound per hour, and 1.40 tons per year. (T030)

CO emissions shall not exceed 0.15 ton per year. (T027)

CO emissions shall not exceed 0.07 ton per year. (T029)

CO emissions shall not exceed 0.02 pounds per hour, and 0.07 tons per year as a rolling, 12-month summation. (T007)

Applicable Compliance Method:

$$\text{Uncontrolled CO emissions (tpy)} = EF * C * (0.028 \text{ m}^3/\text{cf}) * (\text{lb}/454,000 \text{ mg}) * \text{Flow} * (60 \text{ min}/\text{hr}) * (8,760 \text{ hr}/\text{yr}) / 2000 (\text{lb}/\text{ton})$$

Where

EF = 1.14 mg/m³/ppm emission factor from AP-42 for H₂S;

C = pollutant concentration (ppm) from correlation of concentration of CO based on the LEL of asphalt = 31* %LEL + 570 for roofing or oxidized asphalt
 = 2740 ppm (T027)
 = 1190 ppm (T029) (T030) (T007);

Flow = vent flow (cfm)
 = 60 cfm.

$$\text{Controlled CO emissions (tpy)} = \text{Uncontrolled CO emissions (tpy)} * (1 - \text{control efficiency}) * (\text{capture efficiency})$$

Where

Control efficiency = 95%, or as determined from most recent stack test; and Capture efficiency = 100%, assumed since closed vent system vented to control device.

If required, compliance with the hourly limitation for T030 or T007 shall be determined through the results of testing in accordance with Methods 1 through 4, and 10 of 40 CFR Part 60, Appendix A.

Emissions Limitations:

VOC emissions shall not exceed 0.40 pound per hour, and 1.75 tons per year. (T030)

VOC emissions shall not exceed 0.74 ton per year. (T027)

VOC emissions shall not exceed 0.21 ton per year. (T029)



VOC emissions shall not exceed 0.05 pounds per hour, and 0.21 tons per year as a rolling, 12-month summation (T007).

Applicable Compliance Method:

$$\text{Uncontrolled VOC emissions (tpy)} = \text{VOC Concentration (lb/cf)} * \text{Flow} * (60 \text{ min/hr}) * (8,760 \text{ hr/yr}) / 2000 \text{ (lb/ton)}$$

Where

$$\text{VOC Conc. (lb/cf)} = \%LEL * (1 - \text{fraction methane/ethane}) * (100\%LEL \text{ conc.}) * (28.32 \text{ L/cf}) * (\text{lb}/454,000 \text{ mg})$$

$$\begin{aligned} \%LEL &= \text{Lower Explosive Limit for the tank} \\ &= 0.70 \text{ (T027)} \\ &= 0.20 \text{ (T029) (T030) (T007);} \end{aligned}$$

$$\text{Fraction methane/ethane} = 0.52, \text{ as determined from testing;}$$

$$100\%LEL \text{ conc.} = 45 \text{ mg/L, value of the Lower Explosion Limit (100\% LEL) expressed in a concentration that is constant for alkanes, Industrial Explosion and Protectoin, Frank T. Bodurtha, p12, McGraw Hill, 1980; and}$$

$$\begin{aligned} \text{Flow} &= \text{vent flow (cfm)} \\ &= 60 \text{ cfm.} \end{aligned}$$

$$\text{Controlled VOC emissions (tpy)} = \text{Uncontrolled VOC emissions (tpy)} * (1 - \text{control efficiency}) * (\text{capture efficiency})$$

Where

Control efficiency = 95%, or as determined from most recent stack test; and
 Capture efficiency = 100%, assumed since closed vent system vented to control device.

If required, compliance with the hourly limitation for T030 or T007 shall be determined through the results of testing in accordance with Methods 1 through 4, and 25/25A of 40 CFR Part 60, Appendix A.

d. Emission Limitations:

H2S emissions shall not exceed 0.006 pounds per hour, and 0.03 tons per year as a rolling, 12-month summation (T007).

Applicable Compliance Method:

$$\text{Uncontrolled H2S emissions (tpy)} = EF * C * (0.028 \text{ m}^3/\text{cf}) * (\text{lb}/454,000 \text{ mg}) * \text{Flow} * (60 \text{ min/hr}) * (8,760 \text{ hr/yr}) / 2000 \text{ (lb/ton)}$$



Where

EF = 1.39 mg/m³/ppm emission factor from AP-42 for H₂S;

C = pollutant concentration (ppm) from correlation of concentration of H₂S based on the LEL of asphalt = 2.5* %LEL + 340 for roofing or oxidized asphalt
= 390 ppm (T027)

Flow = vent flow (cfm)
= 60 cfm.

*Controlled H₂S emissions (tpy) = Uncontrolled H₂S emissions (tpy) * (1-control efficiency) * (capture efficiency)*

Where

Control efficiency = 95%, or as determined from most recent stack test; and
Capture efficiency = 100%, assumed since closed vent system vented to control device.

If required, compliance with the hourly H₂S limitation shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 4, and 15 of 40 CFR Part 60, Appendix A..

e. Emission Limitation:

95% overall control efficiency for CO and VOC (T007)

Applicable Compliance Method:

If required, compliance with the control efficiency limitation shall be demonstrated through the results of stack testing performed in accordance with Methods 1 - 4 and 18 or 25/25A, as appropriate, for VOC and 10 or 10B for CO of 40 CFR Part 60, Appendix A, and in accordance with the test methods and procedures specified in 3745-21-10.

f. Emissions Limitation:

0% opacity, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for cleaning.

Applicable Compliance Method:

If required, compliance with the visible PE limitation shall be determined through the results of visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A.



g. Emissions Limitation:

Reduce inlet VOC emissions by 95 percent or greater.

Applicable Compliance Method:

Compliance with the limitation shall be determined through the results of emission testing conducted on the incinerator(s) to demonstrate compliance with either the 99.5% combustion efficiency, 20 ppmv total hydrocarbon outlet, or 95% total hydrocarbon mass emissions reduction requirement pursuant to 40 CFR 63, Subpart LLLLL.

g) Miscellaneous Requirements

(1) None



5. Emissions Unit Group -Tank Group: T031, T032, and T033

EU ID	Operations, Property and/or Equipment Description
T031	Asphalt Storage Tank #51 - 29,600-gallon asphalt storage tank, controlled with a thermal incinerator
T032	Asphalt Storage Tank #59 - 29,600-gallon asphalt storage tank, controlled with a thermal incinerator
T033	Asphalt Storage Tank #67 - 29,600-gallon asphalt storage tank, controlled with a 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.	OAC rule 3745-31-05(A)(3)	<p>For T031:</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 2.01 tons per year.</p> <p>Carbon monoxide (CO) emissions shall not exceed 0.07 tons per year.</p> <p>Organic compound (OC) emissions shall not exceed 1.0 tons per year.</p> <p>Particulate emissions (PE) shall not exceed 0.3 tons per year.</p> <p>From each tank (T032 & T033):</p> <p>Volatile organic compound (VOC) emissions shall not exceed 0.60 tons per year.</p> <p>PE shall not exceed 0.17 tons per year.</p> <p>CO shall not exceed 0.49 tons per year.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Hydrogen sulfide (H ₂ S) shall not exceed 0.07 tons per year. SO ₂ shall not exceed 2.65 tons per year.
b.	OAC rule 3745-17-07(A)	The emission limitations specified by these rules are less stringent than the emissions limitations established pursuant to 40 CFR 63, Subpart LLLLL.
c.	OAC rule 3745-17-11	PE shall not exceed 54.27 pounds per hour from each tank. (Based on a process weight rate of 134.06 tons per hour and Table I)
d.	OAC rule 3745-21-09(L)(2)	Exempt, storage capacity less than 40,000 gallons.
e.	40 CFR Part 60, Subpart Kb	Exempt, storage capacity greater than or equal to 75 m ³ (19,813 gal), but less than 151 m ³ (39,890 gal) and stores a liquid with a maximum true vapor pressure less than 15.0 kPa (2.17 psia). (T031, T032, T033)
f.	40 CFR Part 63, Subpart LLLLL	0% opacity for exhaust gases, except for one consecutive 15-minute period in any 24-hour period when the storage tank transfer lines are being cleaned. The control device shall not be bypassed during this 15-minute period.
g.	40 CFR 63.1-15	Table 7 to Subpart LLLLL of 40 CFR Part 63 - Applicability of General Provisions to Subpart LLLLL shows which parts of the General Provisions in 40 CFR 63.1 - 15 apply.
h.	40 CFR Part 60, Subpart UU	See b)(2)c.
i.	OAC rule 3745-21-21(C)(4)	Exempt from control requirements. See b)(2)d below.

(2) Additional Terms and Conditions

- a. T031, T032 and T033: The fixed roof storage tank shall be equipped with a submerged fill.
- b. T031, T032 and T033: All of the OC emissions from this emissions unit shall be vented to the thermal incinerator that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.



- c. In accordance with 40 CFR 63.8681(b), asphalt storage tanks subject to the provisions of both 40 CFR 60, Subpart UU and 40 CFR 63, Subpart LLLLL are required to comply only with the provisions of 40 CFR 63, Subpart LLLLL.
- d. In accordance with OAC 3745-21-21(C)(5), fixed roof tanks with a capacity of less than forty thousand gallons are exempt from the requirements of OAC 374521-21(C)(1) and (C)(2).

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 average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit(s) controlled by the thermal incinerator is/are in operation, shall not be less than 1450 degrees Fahrenheit or more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance.

[Note: These Group 2 tanks are not subject to 40 CFR 63, Subpart LLLLL continuous temperature monitoring requirements. However, the thermal incinerator(s) that these tanks exhaust to also control(s) emission sources subject to 40 CFR 63, Subpart LLLLL that are subject to more stringent temperature monitoring requirements.]

- (2) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal incinerator when the emissions unit(s) is/are in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:
 - a. all 3-hour blocks of time, when the emissions unit(s) controlled by the thermal incinerator was/were in operation, during which the average combustion temperature within the thermal incinerator was less than 1450 degrees Fahrenheit or more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance; and
 - b. a log (date and total time) of the downtime or bypass of the capture (collection) system and thermal incinerator, and/or downtime of the monitoring equipment, when the associated emissions unit(s) was/were in operation.



These records shall be maintained at the facility for a period of three years.

- (3) Whenever the monitored average combustion temperature within the thermal incinerator deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
- a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;
 - c. the date the investigation was conducted;
 - d. the name(s) of the personnel who conducted the investigation; and
 - e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the temperature readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.



- (4) T031, T032, and T033: The permittee shall maintain a record showing the dimensions of this vessel and an analysis showing the capacity. This record shall be kept for the life of the emissions unit.
- (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 minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

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. 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;
 - b. 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;
 - c. each incident of deviation described in "a" or "b" (above) where a prompt investigation was not conducted;



- d. each incident of deviation described in “a” or “b” 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
- e. each incident of deviation described in “a” or “b” 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 identify:
 - a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

- (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:

SO₂ emissions shall not exceed 2.01 tons per year. (T031)

Applicable compliance Method:

Compliance with the SO₂ emission limitation shall be determined as specified in the document entitled “Asphalt Tank with Fume Incinerator Calculations” submitted in the permit to install application number 16-01825.

- b. Emission Limitation:

CO emissions shall not exceed 0.07 tons per year. (T031)



Applicable compliance Method:

Annual CO emissions shall be calculated in accordance with the following methodology:

$$CO (tpy) = EF * X ppm * 0.028 m^3/cf * Y CFM * (lb/454,000 mg) * (60 min/hr) * (8,760 hr/yr) * (1 ton/2000 lbs) * (1 - CE)$$

Where:

EF = 1.14 mg/m³/ppm emission factor from AP-42 for CO;

CE = 95% control efficiency from the thermal incinerator;

X ppm = correlation of the concentration of CO based on the LEL of asphalt

=1,190 ppm for oxidized asphalt (maximum concentration as an annual average); and

Y CFM = estimate of vent flow, 60 cfm.

c. Emission Limitation:

OC emissions shall not exceed 1.0 tons per year. (T031)

Applicable compliance Method:

Compliance with the OC emission limitation shall be determined as specified in the document entitled "Asphalt Tank with Fume Incinerator Calculations" submitted in the permit to install application number 16-01825.

d. Emission Limitation:

PE shall not exceed 0.3 tons per year. (T031)

Applicable compliance Method:

Compliance with the PE limitation shall be determined as specified in the document entitled "Asphalt Tank with Fume Incinerator Calculations" submitted in the permit to install application number 16-01825.

e. Emission Limitation:

0% opacity for exhaust gases, except for one consecutive 15-minute period in any 24-hour period when the storage tank transfer lines are being cleaned.

Applicable compliance Method:

If required, the permittee shall demonstrate compliance with the visible PE limitation in accordance with Method 9 of 40 CFR Part 60, Appendix A.



f. Emission Limitation:

PE shall not exceed 54.27 pounds per hour. (T031, T032, and T033)

Applicable compliance Method:

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

g. Emission Limitation:

VOC emissions shall not exceed 0.60 tons per year. (T032) (T033)

Applicable compliance Method:

$$\text{VOC emissions (lb/yr)} = \text{VOC Concentration (lb/cf)} * \text{Flow} * (60 \text{ min/hr}) * (8760 \text{ hr/yr})$$

Where:

$$\text{VOC Conc. (lb/cf)} = \%LEL * (1 - \text{fraction methane/ethane}) * (100\%LEL \text{ conc}) * (28.32 \text{ L/cf}) * (1\text{b}/454,000 \text{ mg})$$

%LEL = Lower Explosive Limit value for the tank = 0.56, as determined from testing;

fraction methane/ethane = 0.52, as determined from testing;

100% LEL conc. = 45mg/L, value of the Lower Explosion Limit (100% LEL) expressed in a concentration that is constant for alkanes, Industrial Explosion and Protection, Frank T. Bodurtha, p12, McGraw Hill, 1980; and

Flow = vent flow, (cfm) = 60 cfm.

$$\text{Controlled VOC emissions (tpy)} = \text{VOC emissions (lb/yr)} * (1 - \text{control efficiency}) * (\text{capture efficiency}) * (\text{ton}/2,000\text{lbs})$$

Where:

Control efficiency = 95%, or as determined from most recent stack test; and
Capture efficiency = 100%, assumed since closed loop system vented to control device.

h. Emission Limitation:

PE shall not exceed 0.17 ton per year. (T032) (T033)



Applicable compliance Method:

$$\text{Controlled particulate emissions (tpy)} = \text{Controlled VOC emissions (tpy)} * (0.28)$$

From testing, it has been determined that 28% of VOC emissions are considered particulate emissions.

If required, compliance with this mass emission limitation shall be based on the results of stack testing in accordance with Method 5 of 40 CFR Part 60, Appendix A.

i. Emission Limitation:

CO shall not exceed 0.49 per year. (T032) (T033)

Applicable compliance Method:

$$\text{Uncontrolled CO (lb/yr)} = EF * C * (0.028 \text{ m}^3/\text{cf}) * (\text{lb}/454,000 \text{ mg}) * \text{Flow} * (60 \text{ min/hr}) * (8760 \text{ hr/yr})$$

Where:

EF = 1.14 mg/m³/ppm emission factor from AP-42 for CO;

C = pollutant concentration (ppm) from correlation of the concentration of CO based on the LEL of asphalt = 12.43 * %LEL + 800 for oxidized asphalt = 8752 ppm; and

Flow = vent flow, (cfm) = 60 cfm.

$$\text{Controlled CO emissions (tpy)} = \text{CO emissions (lb/yr)} * (1 - \text{control efficiency}) * (\text{capture efficiency}) * (\text{ton}/2,000 \text{ lbs})$$

Where:

Control efficiency = 95%, or as determined from most recent stack test; and
Capture efficiency = 100%, assumed since closed loop system vented to control device.

j. Emission Limitation:

H₂S shall not exceed 0.07 per year. (T032) (T033)

Applicable compliance Method:

$$\text{Uncontrolled H}_2\text{S (lb/yr)} = EF * C * (0.028 \text{ m}^3/\text{cf}) * (\text{lb}/454,000 \text{ mg}) * \text{Flow} * (60 \text{ min/hr}) * (8760 \text{ hr/yr})$$



Where:

EF = 1.39 mg/m³/ppm emission factor from AP-42 for H₂S;

C = pollutant concentration (ppm) from correlation of the concentration of H₂S based on the LEL of asphalt = 12.43 * %LEL + 400.5 for oxidized asphalt = 1096.58 ppm; and

Flow = vent flow, (cfm) = 60 cfm.

*Controlled H₂S emissions (tpy) = H₂S emissions (lb/yr) * (1 - control efficiency) * (capture efficiency) * (ton/2,000 lbs)*

Where:

Control efficiency = 95%, or as determined from most recent stack test; and
Capture efficiency = 100%, assumed since closed loop system vented to control device.

k. Emission Limitation:

SO₂ shall not exceed 2.65 per year. (T032) (T033)

Applicable compliance Method:

SO₂ emissions (tpy) = [Uncontrolled H₂S emissions (tpy) - Controlled H₂S emissions (tpy)] * 1.88

g) Miscellaneous Requirements

(1) None.