



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

8/2/2016

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: P0119314
Permit Type: Administrative Modification
County: Medina

Certified Mail

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

Dear Permit Holder:

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

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

How to appeal this permit

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

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

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

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

How to get an electronic copy of your permit

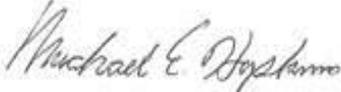
This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

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

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

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

Sincerely,



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

Cc: U.S. EPA
ARAQMD; Canada



FINAL

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

Facility ID:	1652050040
Permit Number:	P0119314
Permit Type:	Administrative Modification
Issued:	8/2/2016
Effective:	8/2/2016



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

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Final Permit-to-Install
Owens Corning Roofing and Asphalt, LLC
Permit Number: P0119314
Facility ID: 1652050040
Effective Date: 8/2/2016

Authorization

Facility ID: 1652050040
Facility Description: Asphalt Felts and Coatings.
Application Number(s): M0003395
Permit Number: P0119314
Permit Description: Administrative Modification to update facility-wide requirements for dust collector systems following ductwork redesign/rebalancing, and remove emissions unit specific pressure drop monitoring, record keeping and reporting terms that were equivalent or less stringent than MACT LLLLL requirements.
Permit Type: Administrative Modification
Permit Fee: \$500.00
Issue Date: 8/2/2016
Effective Date: 8/2/2016

This document constitutes issuance to:

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

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

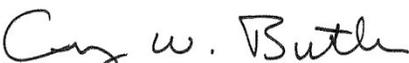
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Craig W. Butler
Director



Final Permit-to-Install
Owens Corning Roofing and Asphalt, LLC
Permit Number: P0119314
Facility ID: 1652050040
Effective Date: 8/2/2016

Authorization (continued)

Permit Number: P0119314

Permit Description: Administrative Modification to update facility-wide requirements for dust collector systems following ductwork redesign/rebalancing, and remove emissions unit specific pressure drop monitoring, record keeping and reporting terms that were equivalent or less stringent than MACT LLLLL requirements.

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

Emissions Unit ID:	P917
Company Equipment ID:	Asphalt Filler Mixer #1
Superseded Permit Number:	P0106752
General Permit Category and Type:	Not Applicable



Final Permit-to-Install
Owens Corning Roofing and Asphalt, LLC
Permit Number: P0119314
Facility ID: 1652050040
Effective Date: 8/2/2016

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

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

2. Severability Clause

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

3. General Requirements

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

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

4. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Akron Regional Air Quality Management District.

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

5. Scheduled Maintenance/Malfunction Reporting

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

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

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

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

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

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

7. Best Available Technology

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

8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

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

10. Applicability

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

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

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the

Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

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

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

12. Permit-To-Operate Application

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

13. Construction Compliance Certification

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

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

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

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

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

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

18. Risk Management Plans

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

19. Title IV Provisions

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



Final Permit-to-Install
Owens Corning Roofing and Asphalt, LLC
Permit Number: P0119314
Facility ID: 1652050040
Effective Date: 8/2/2016

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) B.8.

2. This facility's existing emissions units are subject to the applicable requirements specified in 40 CFR 63, Subpart LLLLL - National Emission Standards for Hazardous Air Pollutants (NESHAP) 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% oxygen; or
 - (2) route the emissions to a combustion device achieving a combustion efficiency of 99.5%.
 - b) Total particulate emissions from the coating mixer, coater, sealant applicator, and adhesive applicator at each existing asphalt manufacturing line shall be limited to 0.04 kilograms per megagram (kg/Mg) (0.08 pounds per ton, lb/ton) of asphalt shingle or mineral-surfaced roll roofing produced.
 - c) For each existing coater:
 - (1) limit exhaust gases to 20% opacity; and
 - (2) limit visible emissions from the emission capture system to 20% of any period of consecutive valid observations totaling 60 minutes.
 - d) For each Group 2 asphalt storage tank:
 - (1) limit exhaust gases to 0% opacity.

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 – 63.15 apply.

The complete NESHAP requirements, including the General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://www.ecfr.gov> or by contacting the appropriate Ohio EPA District office or local air agency.

3. Stack emissions shall be limited to 0.01 grains per dry standard cubic foot (gr/dscf) of particulate emissions for the 4-Wide Process Dust Collector (4WPDC) and Roofing Line PDC. These process dust collectors control the following emissions units:

<u>Emissions Unit ID</u>	<u>Source Description</u>	<u>Control Device</u>
P905	Material Surfacing Applicator #1	Roofing Line PDC
P909	Material Surfacing Applicator #2	4WPDC
P916	Mat Unwind #2	4WPDC
P918	Surfacing Material System #1	4WPDC
P922	Surfacing Material System #2	4WPDC and Roofing Line PDC

4. The permittee shall conduct, or have conducted, emission testing for the 4WPDC and Roofing Line PDC that control the emissions units listed in section B.3 above in accordance with the following requirements:
- a) The emission testing shall be conducted within 6 months after the issuance date of initial installation permit 16-02347.
 - b) The emission testing shall be conducted to demonstrate compliance with the stack particulate emission limitation.
 - c) The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):
 - for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A.
 - Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - Also within 6 months after the modifications to the roofing production lines and asphalt plant are complete, the permittee shall conduct, or have conducted, emissions testing for the following emissions units with the following test methods:
 - for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A for emissions units J005, P006, P007, P902, P906, P908, P917, and T007;
 - for PM₁₀, Method 201 of 40 CFR Part 51, Appendix M for emissions units J005, P006, P007, P902, P906, P908, P917, and T007;
 - for H₂S, Methods 1 through 4, and 15 of 40 CFR Part 60, Appendix A for emissions units J005, P006, P007, P906, P908, and T007;
 - for SO₂, Methods 1 through 4, and 6 of 40 CFR Part 60, Appendix A for emissions units J005, P006, P007, P906, P908, and T007;
 - for CO, Methods 1 through 4, and 10/10B of 40 CFR Part 60, Appendix A for emissions units J005, P006, P007, P906, P908, P917, and T007; and
 - for VOC, Methods 1 through 4, and 18 or 25/25A of 40 CFR Part 60, Appendix A for emissions units J005, P006, P007, P906, P908, P917, and T007.
 - 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.
 - 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.
5. In order to comply 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 JZ thermal incinerator (egress point A43) that serves emissions units T007 - T009, T026, T029, T031 - T033, and 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;
 - b) exhaust stack from the asphalt pre-heater (egress point A42A) that serves emissions unit B006 shall be at least 35 feet above ground level and in be in compliance with all variables associated with that exhaust stack that demonstrated compliance with those requirements;
 - c) exhaust stack from the PCC thermal incinerator (egress point A74A) that serves emission units T027, T030, J005, 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; and
 - d) exhaust stack from the emergency generator (egress points A105 and A106) that serves emissions unit B014 shall be at least 45 feet above ground level and in be in compliance with all variables associated with that exhaust stack that demonstrated compliance with those requirements.
6. The following emissions units are subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the U.S. EPA in 40 CFR Part 60:

<u>Emissions Unit ID</u>	<u>Source Description</u>	<u>NSPS Regulation(s)</u>
P003	Convertor #2	UU
P006	Convertor #4	UU
P007	Convertor #5	UU
P902	Mineral Filler Handling System	UU
P906	Asphalt Coater/Surge Tank #1	UU
P908	Asphalt Coater/Surge Tank #2	UU
T007	Asphalt Storage Tank #50	UU & Kb



Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- a) Construction date (no later than 30 days after such date);
- b) Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c) Actual start-up date (within 15 days after such date); and
- d) Date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Air Quality Modeling and Planning
P.O. Box 1049
Columbus, OH 43216-1049

and Akron Regional Air Quality Management District
Summit County Public Health
1867 West Market Street
Akron, OH 44313-6901

7. Fuel Oil Requirements

- a) The permittee shall not combust any No. 2 distillate fuel oil at the facility that has a sulfur content greater than 0.3% by weight.
- b) The maximum annual operating hours for the firing of No. 2 distillate fuel oil in each of the following emissions units: Boiler #1 (B004), Boiler #2 (B002), and Hot Oil Heater #5 (B107) shall not exceed 500 hours per year, based upon a rolling, 12-month summation of the operating hours. The permittee has existing operation records and, therefore, does not need to be limited to first year monthly operating hours.
- c) The permittee shall maintain monthly records of the operating hours for the firing of No. 2 distillate fuel oil in each of the missions units Boiler #1 (B004), Boiler #2 (B002), and Hot Oil Heater #5 (B107).
- d) The permittee shall maintain records of the oil burned at the facility in accordance with either Alternative 1 or Alternative 2 described below:

(1) Alternative 1:

For each shipment of oil received for burning at the facility, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/MMBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

(2) Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned at the facility for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving the facility on a day when the facility is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/MMBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as ASTM methods D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.

- e) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- (1) all exceedances of the rolling, 12-month operating hours limitation; and
 - (2) any deviation from the allowable sulfur content limitation.

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

8. Toxic Air Contaminants

- a) The permit-to-install (PTI) application for these emissions units (J003, J005, P003, P006 - P007, P902, P906, P908, P910, P917, and T007) was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration results from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
- (1) the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compounds emitted from the emissions units, (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the

following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

- a. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - b. short term exposure limit (STEL) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- (2) The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- (3) This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions units, i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the MAGLC:

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

- (4) The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year):

Toxic Contaminant: HCl

TLV (mg/m³): 2.20 (based on 2ppm STEL)

Maximum Hourly Emission Rate (lbs/hr): 5.906 (total)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 22.7

MAGLC (ug/m³): 52.4 (application value of 131.6 ppm based on the 7.5 mg/m³ STEL)

Toxic Contaminant: benzene

TLV (mg/m³): 1.60 (based on 0.5 ppm TWA)

Maximum Hourly Emission Rate (lbs/hr): 0.455 (total)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 1.8

MAGLC (ug/m³): 38.1

Toxic Contaminant: ethyl benzene

TLV (mg/m³): 434 (based on 100 ppm TWA)

Maximum Hourly Emission Rate (lbs/hr): 0.429 (total)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 1.7

MAGLC (ug/m³): 10,333

The permittee, has demonstrated that emissions of the individual toxic contaminants, from emissions units (J003, J005, P003, P006 - P007, P902, P906, P908, P910, P917, and T007), is calculated to be less than 80% of the MAGLC; any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

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

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a modification under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a modification, the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- c) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
- (1) a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
 - (2) the MAGLC for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
 - (3) a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
 - (4) the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.



- d) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.
 - e) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the quarterly deviation (excursion) reports. If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.
9. Stack emissions shall be limited to 0.02 gr/dscf of particulate emissions for the 3-Wide Process Dust Collector (3WPDC). This limitation was established pursuant to OAC 3745-31-05(F) at the facility's request. The process dust collector controls the following emissions units:

<u>Emissions Unit ID</u>	<u>Source Description</u>	<u>Control Device</u>
P905	Material Surfacing Applicator #1	3WPDC
P914	Mat Unwind #1	3WPDC
P918	Surfacing Material System #1	3WPDC



Final Permit-to-Install
Owens Corning Roofing and Asphalt, LLC
Permit Number: P0119314
Facility ID: 1652050040
Effective Date: 8/2/2016

C. Emissions Unit Terms and Conditions

1. P917, Asphalt Filler Mixer #1

Operations, Property and/or Equipment Description:

Asphalt Filler Mixer #1 - Controlled with Coater #1 fiber bed filter (serves 3-Wide Roofing Line)

- 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>Stack particulate emissions (PE) and particulate matter with aerodynamic diameter less than or equal to ten microns in diameter (PM₁₀) shall not exceed 0.19 pounds per hour (lb/hr).</p> <p>Volatile organic compound (VOC) emissions shall not exceed 7.8 lb/hr.</p> <p>Carbon monoxide (CO) emissions shall not exceed 0.33 lb/hr.</p> <p>Visible PE from any stack shall not exceed 10% opacity, as a 6-minute average.</p> <p>Visible PE of fugitive dust shall not exceed 10% opacity, as a 3-minute average.</p> <p>See b)(2)a. and b)(2)b. below.</p>
b.	OAC rule 3745-17-07(A)(1) OAC rule 3745-17-07(B)(1) OAC rule 3745-17-11(B)(1)	The emission limitations specified by these rules are less stringent than the emissions limitations established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-08(B)(3)	<p>The filler mixer shall be adequately enclosed and vented to a fiber bed filter.</p> <p>See b)(2)b. and b)(2)c. below.</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rules 3745-31-13 through 3745-31-20	VOC emissions shall not exceed 23.89 tons per rolling, 12-month period. CO emissions shall not exceed 1.06 tons per rolling 12-month period. See c)(1) below.
e.	OAC rule 3745-31-05(D)	PE/PM10 emissions shall not exceed 0.61 tons per rolling, 12-month period. See c)(1) below.
f.	40 CFR Part 63, Subpart LLLLLL (40 CFR 63.8680 – 63.8698) [In accordance with 40 CFR 63.8681(a), emissions unit P917 is an asphalt roofing manufacturing facility located at a major source of hazardous air pollutant (HAP) emissions, and is subject to the requirements specified by this section.]	Limit total PE from the coater, coating mixer, sealant applicator, and adhesive applicator on the 3-Wide Roofing Line to 0.04 kilogram of particulate per megagram (kg/Mg) (0.8 lb/ton) of asphalt shingle or mineral-surfaced roll roofing produced. [40 CFR 63.8684(a)]

(2) Additional Terms and Conditions

- a. The hourly emission limitations are based upon the emissions unit’s potential to emit (PTE). Therefore, no hourly records are required to demonstrate compliance with these emission limitations.
- b. The emissions from this emissions unit shall be vented to the fiber bed filter at all times the emissions unit is in operation.
- c. The installation and use of hoods, fans, and/or other equipment to adequately enclose, contain, capture, vent, and control fugitive dust from this emissions unit shall meet the following requirements:
 - i. the collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design; and
 - ii. the control equipment for this emissions unit shall achieve an outlet PE rate of not greater than 0.030 gr/dscf of exhaust gases or there shall be no visible PE (whichever is less stringent) from the exhaust stack of this emissions unit.

c) Operational Restrictions

- (1) The maximum throughput and production on the laminated (3-Wide) roofing line shall not exceed 96,911.2 tons of asphalt and 492,080.4 tons of shingle production on a rolling 12-month summation. The permittee has existing operation records and therefore does not need to be limited to first year monthly throughput and production amounts.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the asphalt throughput and shingle production rate, in tons, for each month;
 - b. the PE/PM10, CO, and VOC emissions, in tons, for each month based upon the results of the latest stack test;
 - c. the rolling, 12-month summation of the asphalt throughput and shingle production rates, in tons; and
 - d. the rolling, 12-month summation of the PE/PM10, CO, and VOC emissions, in tons.
- (2) 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 from the filler mixer and visible 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.

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)(2)d. above or continue the 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.

- (3) The permittee shall maintain records of the inlet gas temperature and pressure drop data along with the 3-hour averages of the inlet gas temperature and pressure drop.
- (4) 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.
- (5) For each temperature monitoring device, the permittee must meet the requirements of section d)(4) and the following:
 - a. locate the temperature sensor in a position that provides a representative temperature;
 - b. for a noncryogenic temperature range, use a temperature sensor with a minimum measurement sensitivity of 2.8 degrees Celsius ($^{\circ}\text{C}$) or 1.0% 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 Fahrenheit ($^{\circ}\text{F}$);
 - 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.
- (6) For each pressure measurement device, the permittee must meet the requirements of section d)(4) and the following:
 - a. locate the pressure sensor(s) in, or as close as possible to, a position that provides a representative measurement of the pressure;
 - b. use a gauge with a minimum measurement sensitivity of 0.12 kilopascals or a transducer with a minimum measurement sensitivity of 5% of the pressure range;
 - c. check pressure tap pluggage daily, and perform an accuracy check at least quarterly or following an operating parameter deviation:
 - i. according to the procedures in the manufacturer's documentation; or
 - ii. by comparing the sensor to redundant sensor output;
 - d. conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new sensor;
 - e. at least monthly or following an operating parameter deviation, perform a leak check of all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage; and
 - f. at least quarterly or following an operating parameter deviation, perform visible inspections on all components if redundant sensors are not used.
- (7) For monitoring parameters other than temperature and pressure drop, the permittee must install and operate a CPMS to provide representative measurements of the monitored parameters.
- (8) As an option to installing the CPMS specified in section d)(4), 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.
- (9) 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).

(10) 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).

(11) The permittee must conduct a performance evaluation of each CPMS, CEMS, or COMS in accordance with the site-specific monitoring plan.

(12) 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 throughput and shingle production limitations; and
- b. all exceedances of the rolling, 12-month PE/PM10, CO, and VOC emission limitations.

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 reports that identify the following:

- a. information required by 40 CFR 63.8693(c);
- b. all days during which any visible emissions were observed from the stack servicing this emissions unit or any visible emissions of fugitive dust were observed; and

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

These reports shall cover the reporting period from January 1 through June 30 or the 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.

- (4) The permittee shall submit annual reports that specify the total PE/PM₁₀, CO, and VOC 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.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Stack PE and PM₁₀ shall not exceed 0.19 lb/hr

Applicable Compliance Method:

Compliance with the hourly PE limitation identified above shall be determined through the results of testing performed in accordance with U.S. EPA Methods 1 through 5 of 40 CFR Part 60, Appendix A, and section f)(2) of this permit.

b. Emission Limitation:

VOC emissions shall not exceed 7.8 lb/hr

Applicable Compliance Method:

Compliance with the hourly VOC limitation identified above shall be determined through the results of testing performed in accordance with U.S. EPA Methods 1 through 4 and 18 or 25/25A of 40 CFR Part 60, Appendix A, and section f)(2) of this permit.

c. Emission Limitation:

CO emissions shall not exceed 0.33 lb/hr

Applicable Compliance Method:

Compliance with the hourly CO limitation identified above shall be determined through the results of testing performed in accordance with U.S. EPA Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A, and section f)(2) of this permit.



d. Emission Limitation:

Visible PE from any stack shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method:

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

e. Emission Limitation:

Visible PE of fugitive dust shall not exceed 10% opacity, as a 3-minute average.

Applicable Compliance Method:

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

f. Emission Limitations:

24.89 tons VOC per rolling, 12-month period

1.06 tons CO per rolling, 12-month period

0.61 ton PE/PM10 per rolling, 12-month period

Applicable Compliance Method:

Compliance with the rolling 12-month limitations identified above shall be demonstrated in accordance with the record keeping requirements in section d) of this permit. As long as compliance with the rolling 12-month production/throughput operational restriction is maintained, compliance with these limitations shall be demonstrated.

g. Emission Limitation:

Limit total PE from the coater, coating mixer, sealant applicator, and adhesive applicator on the 3-Wide Roofing Line to 0.04 kg/Mg (0.8 lb/ton) of asphalt shingle or mineral-surfaced roll roofing produced.

Applicable Compliance Method:

Compliance with the allowable PE limitation identified above shall be demonstrated by the following calculations:

$$E = Mpm / P \quad (\text{Eq. 1})$$

Where:



E = Particulate emissions, kilograms of particulate per megagram of roofing product manufactured;

Mpm = Particulate hourly emission rate, kilograms per hour, determined using Equation 2; and

P = Asphalt roofing product manufacturing rate during the emissions sampling period, including and material trimmed from the final product, megagram per hour.

$$Mpm = C \times Q \times K \text{ (Eq. 2)}$$

Where:

Mpm = Particulate hourly emission rate, kilograms per hour;

C = Concentration of particulate on a dry basis, grams per dry standard cubic meter (g/dscm), as measured by the test method specified in Table 3 of 40 CFR Part 63, Subpart LLLLL;

Q = Vent gas steam flow rate in dry standard cubic meters per minute (dscm/min) at a temperature of 20°C, as measured by the test method specified in Table 3 of 40 CFR Part 63, Subpart LLLLL;

K = Unit conversion constant (0.06 minute-kilogram / hour-gram).

(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 6 months after the issuance date of initial installation permit 16-02347, except for the PE testing required by 40 CFR 63, Subpart LLLL that shall be conducted no later than 180 days after the final compliance date.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE, PM10, CO and VOC.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

for PE, Methods 1 through 5 of 40 CFR Part 60, Appendix A;

for PM10, Methods 1 through 4 of 40 CFR Part 60 Appendix A and Method 201 of 40 CFR Part 51, Appendix M;

for CO, Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A; and

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

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 with the hourly emission limits shall be based on comparing the results of the performance test to the sum of the allowable emission limitations for the emission units that vent to the fiber bed filter and that 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.