INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno L. Pigott
Commissioner

NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Preliminary Findings Regarding the Renewal of a
Part 70 Operating Permit

for Sonoco Protective Solutions, Inc. in Jay County

Part 70 Operating Permit Renewal No.: T075-39639-00024

The Indiana Department of Environmental Management (IDEM) has received an application from Sonoco Protective Solutions, Inc. located at 1619 North Meridian Street, Portland, Indiana 47371 for a renewal of its Part 70 Operating Permit issued on November 27, 2013. If approved by IDEM's Office of Air Quality (OAQ), this proposed renewal would allow Sonoco Protective Solutions, Inc. to continue to operate its existing source.

This draft Part 70 Operating Permit Renewal does not contain any new equipment that would emit air pollutants; however, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (e.g., changes that add or modify synthetic minor emission limits). This notice fulfills the public notice procedures to which those conditions are subject. IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow for these changes.

A copy of the permit application and IDEM's preliminary findings are available at:

Jay County Public Library
315 North Ship Street
Portland, IN 47371

A copy of the preliminary findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/.

A copy of the preliminary findings is also available via IDEM's Virtual File Cabinet (VFC.) Please go to: http://www.in.gov/idem/ and enter VFC in the search box. You will then have the option to search for permit documents using a variety of criteria.

How can you participate in this process?

The date that this notice is published in a newspaper marks the beginning of a 30-day public comment period. If the 30th day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the **air pollution impact** of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an opportunity to submit written comments and make verbal comments. At a meeting, you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM's mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number T075-39639-00024 in all correspondence.

Comments should be sent to:

Rithika Reddy
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(800) 451-6027, ask for extension 4-9694
Or dial directly: (317) 234-9694
Fax: (317) 232-6749 attn: Rithika Reddy
E-mail: Rreddy@idem.IN.gov

All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Air Permits page on the Internet at: http://www.in.gov/idem/airquality/2356.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

What will happen after IDEM makes a decision?

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, and the IDEM public file room on the 12th floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Rithika Reddy of my staff at the above address.

Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

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Eric J. Holcomb
Governor

Bruno L. Pigott
Commissioner

DRAFT

Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY

Sonoco Protective Solutions, Inc.
1619 North Meridian Street
Portland, Indiana 47371

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. 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 conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions

Operation Permit No.: T075-39639-00024 Master AI ID: 10803	
Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	 Issuance Date: Expiration Date:

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary foam packaging manufacturing plant.

Source Address:	1619 North Meridian Street, Portland, Indiana 47371
General Source Phone Number:	(412) 415-1462
SIC Code:	3086 (Plastics Foam Products)
County Location:	Jay
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

This stationary source consists of the following emission units and pollution control devices:

(a) Three (3) Hirsch 6000 pre-expanders, uncontrolled and consisting of the following:

Emission Unit ID	Year of Construction	EPS Maximum Capacity (lb/hr)	Arcel® Maximum Capacity (lb/hr)	Stack
PE2	2001	1,250	800	S-PE2
PE4	2011	1,250	800	S-PE4
PE5	2017	1,250	800	S-PE5

The pre-expanders are capable of processing only EPS based beads or Arcel® beads at any one time.
EPS refers to Expandable Polystyrene.
Arcel® refers to a polyethylene and polystyrene blended polymer product.

(b) Five (5) Kurtz 813 molding presses, uncontrolled and consisting of the following:

Emission Unit ID	Year of Construction	EPS Maximum Capacity (lb/hr)	Arcel® Maximum Capacity (lb/hr)	Exhausting
813-1	2011	200	160	Indoors and to stacks DV1-DV15
813-2		200	160	
813-3		200	160	
813-4		200	160	
813-5		200	160	

The molding presses are capable of processing only EPS based beads or Arcel® beads at any one time.
The maximum capacity of the Kurtz 813 molding presses is bottlenecked by the maximum capacity of the Hirsch 6000 pre-expanders.

(c) Four (4) Kurtz 68 molding presses, uncontrolled and consisting of the following:

Emission Unit ID	Year of Construction	EPS Maximum Capacity (lb/hr)	Arcel® Maximum Capacity (lb/hr)	Exhausting
68-1	2011	175	140	Indoors and to stacks DV1-DV15
68-2		175	140	
68-3		175	140	
68-4	2012	175	140	

The molding presses are capable of processing only EPS based beads or Arcel® beads at any one time.
The maximum capacity of the Kurtz 68 molding presses is bottlenecked by the maximum capacity of the Hirsch 6000 pre-expanders.

(d) Two (2) Kurtz 1014 molding presses, uncontrolled and consisting of the following:

Emission Unit ID	Year of Construction	EPS Maximum Capacity (lb/hr)	Arcel® Maximum Capacity (lb/hr)	Exhausting
1014-1	2011	250	200	Indoors and to stacks DV1-DV15
1014-2		250	200	

The molding presses are capable of processing only EPS based beads or Arcel® beads at any one time.
The maximum capacity of the Kurtz 1014 molding presses is bottlenecked by the maximum capacity of the Hirsch 6000 pre-expanders.

(e) Six (6) Kurtz 13517 molding presses, uncontrolled and consisting of the following:

Emission Unit ID	Year of Construction	EPS Maximum Capacity (lb/hr)	Arcel® Maximum Capacity (lb/hr)	Exhausting
13517	2011	300	240	Indoors and to stacks DV1-DV15
13517-2	2012	300	240	
13517-3		300	240	
13517-4		300	240	
13517-5		300	240	
13517-6		300	240	

The molding presses are capable of processing only EPS based beads or Arcel® beads at any one time.
The maximum capacity of the Kurtz 13517 molding presses is bottlenecked by the maximum capacity of the Hirsch 6000 pre-expanders.

(f) Four (4) Molding presses, uncontrolled and consisting of the following:

Emission Unit ID	Year of Construction	EPS Maximum Capacity (lb/hr)	Arcel® Maximum Capacity (lb/hr)	Exhausting
1400-1	2017	300	240	Indoors and to stacks DV1-DV15
1400-2		300	240	
1400-3		300	240	
MP-4*		300	240	

*Approved in 2017 to construct

The molding presses are capable of processing only EPS based beads or Arcel® beads at any one time.
The maximum capacity of the molding presses (1400-1 to 1400-3, and MP-4) is bottlenecked by the maximum capacity of the Hirsch 6000 pre-expanders.

(g) Thirty-four (34) Pre-puff storage silos, uncontrolled and consisting of the following:

Emission Unit ID	Number of Units	Year of Construction	Maximum Capacity (lb) of each	Exhausting
PPS31 – PPS54	24	2016	1725	Outdoors through exhaust fans
PPS55 – PPS64	10	2016	2060	

The maximum capacity of the pre-puff storage silos is bottlenecked by the maximum capacity of the Hirsch 6000 pre-expanders.

(h) Finished goods storage, constructed prior to 1980**,** located inside the building, uncontrolled, and exhausting indoors.

(i) One (1) drying oven, heated by the boilers, identified as Tunnel Oven, constructed in 2016, with a maximum capacity of 521.5 pounds per hour of molded foam products, uncontrolled, and exhausting indoors.

This oven is only used to dry finished goods products made of EPS materials.
This oven will not be used to dry finished goods products made of Arcel® materials.
This oven is heated by the boilers B1, B2 and/or B3.

(j) Three (3) boilers:

(1) One (1) natural gas-fired boiler, identified as B1, constructed in 1979, with #2 fuel oil as backup, with a maximum heat input capacity of 10.5 MMBtu per hour, uncontrolled, and exhausting to stack B1.

(2) One (1) natural gas-fired boiler, identified as B2, constructed in 1981, with #2 fuel oil as backup, with a maximum heat input capacity of 12.6 MMBtu per hour, uncontrolled, and exhausting to stack B2.

(3) One (1) natural gas-fired boiler, identified as B3, permitted in 2011, with a maximum heat input capacity of 29.3 MMBtu per hour, uncontrolled, and exhausting to stack S-B3.

Under 40 CFR 60, Subpart Dc, the above boiler is considered an affected facility.

A.3 Insignificant Activities [326 IAC 2-7-1 (21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5 (14)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) Eighteen (18) natural gas-fired space heaters, uncontrolled, exhausting outdoors, and consisting of the following:

Number of Units	Year of Construction	Maximum Capacity of each unit (MMBtu/hour)
4	2002	0.125
9	2006	0.150
1	2015	0.200
3	2016	0.200
1	2017	0.150

(b) One (1) flame cutting torch, constructed in 2003, with a maximum metal cutting capacity of 4 inches per minute, uncontrolled, and exhausting indoors.

(c) One (1) Polystyrene scrap grinding operation, constructed prior to 2010, with maximum process weight rate of 1210 pounds per hour (with a maximum of 25% of bead products used as scrap), using a filter bag vacuum system for particulate control, and exhausting indoors.

This stationary source also includes the following insignificant activities which are not specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) Heat exchanger cleaning and repair.

(b) Blow down for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(c) A laboratory as defined in 326 IAC 2-7-1(21)(d)

(d) Closed loop heating and cooling systems.

(e) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(f) Conveyors as follows: enclosed systems for conveying plastics raw materials and plastic finished goods.

(g) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

(h) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour, constructed prior to 2005:

(1) Two (2) walk-behind gasoline fired vacuums, each with a maximum capacity of 5.5 hp each;

(2) One (1) gasoline fired snow blower, with a maximum capacity of 5.0 hp.

(i) Process vessel degreasing and cleaning to prepare for internal repairs.

(j) Unpaved roads and parking lots.

(k) One (1) parts washer, constructed in 2016, containing a bio-based cleaning solution

without VOC.

(l) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.

(m) Vessels storing lubricating oils, hydraulic oils, machining oils and machining fluids.

(n) Application of oils, greases, lubricants, or other nonvolatile materials applied as temporary protective coatings.

(o) Machining where an aqueous cutting coolant continuously floods the machining interface.

(p) Water based adhesives that are less than or equal to 5% by volume of VOCs, excluding HAPs.

(q) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees C).

(r) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.

(s) One (1) hot-melt adhesive application with a maximum capacity of 16.43 gallons per day, and uncontrolled.

(t) Three (3) natural gas-fired space heaters, constructed in 2006, each with a maximum heat input capacity of 0.075 MMBtu per hour, uncontrolled, and exhausting outdoors.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

(a) This permit, T075-39639-00024, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

(a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:

(1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and

(2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) A "responsible official" is defined at 326 IAC 2-7-1(35).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region 5
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

(a) All terms and conditions of permits established prior to T075-39639-00024 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or

anticipated noncompliance does not stay any condition of this permit.
[326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(42). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if,

subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

(a) No Part 70 permit revision or notice shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.19 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (c) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region 5
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1) and (c)(1).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(37)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ or U.S. EPA is required.

(e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.20 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.7 Performance Testing [326 IAC 3-6]

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.8 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

C.9 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)][40 CFR 64][326 IAC 3-8]

(a) For new units:
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.

(b) For existing units:
Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance to begin such monitoring. If, due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue

MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(d) For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

C.10 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. The analog instrument shall be capable of measuring values outside of the normal range.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]

C.11 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.12 Risk Management Plan [326 IAC 2-7-5(11)] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.13 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall record the reasonable response steps taken.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.15 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

Pursuant to 326 IAC 2-6-3(b)(2), starting in 2005 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(33) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

C.16 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following, where applicable:

(AA) All calibration and maintenance records.
(BB) All original strip chart recordings for continuous monitoring instrumentation.
(CC) Copies of all reports required by the Part 70 permit.

Records of required monitoring information include the following, where applicable:

(AA) The date, place, as defined in this permit, and time of sampling or measurements.
(BB) The dates analyses were performed.
(CC) The company or entity that performed the analyses.
(DD) The analytical techniques or methods used.
(EE) The results of such analyses.
(FF) The operating conditions as existing at the time of sampling or measurement.

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.17 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with applicable standards for recycling and emissions reduction.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) Three (3) Hirsch 6000 pre-expanders, uncontrolled and consisting of the following:

Emission Unit ID	Year of Construction	EPS Maximum Capacity (lb/hr)	Arcel® Maximum Capacity (lb/hr)	Stack
PE2	2001	1,250	800	S-PE2
PE4	2011	1,250	800	S-PE4
PE5	2017	1,250	800	S-PE5

The pre-expanders are capable of processing only EPS based beads or Arcel® beads at any one time.
EPS refers to Expandable Polystyrene.
Arcel® refers to a polyethylene and polystyrene blended polymer product.

(b) Five (5) Kurtz 813 molding presses, uncontrolled and consisting of the following:

Emission Unit ID	Year of Construction	EPS Maximum Capacity (lb/hr)	Arcel® Maximum Capacity (lb/hr)	Exhausting
813-1	2011	200	160	Indoors and to stacks DV1-DV15
813-2		200	160	
813-3		200	160	
813-4		200	160	
813-5		200	160	

The molding presses are capable of processing only EPS based beads or Arcel® beads at any one time.
The maximum capacity of the Kurtz 813 molding presses is bottlenecked by the maximum capacity of the Hirsch 6000 pre-expanders.

(c) Four (4) Kurtz 68 molding presses, uncontrolled and consisting of the following:

Emission Unit ID	Year of Construction	EPS Maximum Capacity (lb/hr)	Arcel® Maximum Capacity (lb/hr)	Exhausting
68-1	2011	175	140	Indoors and to stacks DV1-DV15
68-2		175	140	
68-3		175	140	
68-4	2012	175	140	

The molding presses are capable of processing only EPS based beads or Arcel® beads at any one time.
The maximum capacity of the Kurtz 68 molding presses is bottlenecked by the maximum capacity of the Hirsch 6000 pre-expanders.

(d) Two (2) Kurtz 1014 molding presses, uncontrolled and consisting of the following:

Emission Unit ID	Year of Construction	EPS Maximum Capacity (lb/hr)	Arcel® Maximum Capacity (lb/hr)	Exhausting
1014-1	2011	250	200	Indoors and to stacks DV1-DV15
1014-2		250	200	

The molding presses are capable of processing only EPS based beads or Arcel® beads at any one time.
The maximum capacity of the Kurtz 1014 molding presses is bottlenecked by the maximum capacity of the Hirsch 6000 pre-expanders.

(e) Six (6) Kurtz 13517 molding presses, uncontrolled and consisting of the following:

Emission Unit ID	Year of Construction	EPS Maximum Capacity (lb/hr)	Arcel® Maximum Capacity (lb/hr)	Exhausting
13517	2011	300	240	Indoors and to stacks DV1-DV15
13517-2	2012	300	240	
13517-3		300	240	
13517-4		300	240	
13517-5		300	240	
13517-6		300	240	

The molding presses are capable of processing only EPS based beads or Arcel® beads at any one time.
The maximum capacity of the Kurtz 13517 molding presses is bottlenecked by the maximum capacity of the Hirsch 6000 pre-expanders.

(f) Four (4) Molding presses, uncontrolled and consisting of the following:

Emission Unit ID	Year of Construction	EPS Maximum Capacity (lb/hr)	Arcel® Maximum Capacity (lb/hr)	Exhausting
1400-1	2017	300	240	Indoors and to stacks DV1-DV15
1400-2		300	240	
1400-3		300	240	
MP-4*		300	240	

*Approved in 2017 to construct

The molding presses are capable of processing only EPS based beads or Arcel® beads at any one time.
The maximum capacity of the molding presses (1400-1 to 1400-3, and MP-4) is bottlenecked by the maximum capacity of the Hirsch 6000 pre-expanders.

(g) Thirty-four (34) Pre-puff storage silos, uncontrolled and consisting of the following:

Emission Unit ID	Number of Units	Year of Construction	Maximum Capacity (lb) of each	Exhausting
PPS31 – PPS54	24	2016	1725	Outdoors through exhaust fans
PPS55 – PPS64	10	2016	2060	

The maximum capacity of the pre-puff storage silos is bottlenecked by the maximum capacity of the Hirsch 6000 pre-expanders.

(h) Finished goods storage, constructed prior to 1980**,** located inside the building, uncontrolled, and exhausting indoors.

(i) One (1) drying oven, heated by the boilers, identified as Tunnel Oven, constructed in 2016, with a maximum capacity of 521.5 pounds per hour of molded foam products, uncontrolled, and exhausting indoors.

This oven is only used to dry finished goods products made of EPS materials.
This oven will not be used to dry finished goods products made of Arcel® materials.
This oven is heated by the boilers B1, B2 and/or B3.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 PSD Minor Limit for Volatile Organic Compounds (VOC) [326 IAC 2-2]

In order to render 326 IAC 2-2 (PSD) not applicable, the total VOC emissions from the following operations:

3 Hirsch 6000 pre-expanders
5 Kurtz 813 molding presses
4 Kurtz 68 molding presses
2 Kurtz 1014 molding presses
6 Kurtz 13517 molding presses
4 Molding presses
34 Pre-puff storage silos
1 Finished goods storage
1 Tunnel oven

shall not exceed 245 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits combined with VOC emissions from all other emissions units at the source shall limit the VOC emissions to less than 250 tons per twelve (12) consecutive month period and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.1.2 Volatile Organic Compound (VOC) [326 IAC 8-1-6]

In order to render the requirements of 326 IAC 8-1-6 not applicable, the Permittee shall comply with the following:

(a) The VOC emissions from Hirsch 6000 pre-expander, identified as PE2, shall not exceed 24.99 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The VOC emissions from Hirsch 6000 pre-expander, identified as PE4, shall not exceed 24.99 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(c) The VOC emissions from Hirsch 6000 pre-expander, identified as PE5, shall not exceed 24.99 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with this limit shall limit the potential to emit VOC from each of the three (3) Hirsch 6000 pre-expanders to less than 25 tons per twelve (12) consecutive month period and shall render the requirements of 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities) not applicable.

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5 (12)]

A Preventive Maintenance Plan (PMP) is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements [326 IAC 2-7-5(1)]

D.1.4 Volatile Organic Compound (VOC)

(a) Compliance with the VOC limit in Condition D.1.1 shall be demonstrated using the following equation:

T_{ML} = VOC emissions from EPS based beads + VOC emissions from Arcel® based beads

= $[\sum (U_E * V_E * L_E) + \sum (U_A * V_A * L_A)] / (2000 \text{ pounds}/ 1 \text{ ton})$

Where:

T_{ML} = Total VOC emissions from the following operations (tons per 12-consective month period)

3 Hirsch 6000 pre-expanders
5 Kurtz 813 molding presses
4 Kurtz 68 molding presses
2 Kurtz 1014 molding presses
6 Kurtz 13517 molding presses
4 Molding presses
34 Pre-puff storage silos
1 Finished goods storage
1 Tunnel oven

U_E = Pounds of EPS-based beads from lot x used during the 12 consective month period

V_E = VOC content of EPS-based beads from lot x, in percent by weight expressed as a decimal

L_E = Overall emission loss rate for EPS-based bead usage (98.7% of raw material VOC content)

U_A = Pounds of Arcel® based beads from lot x used during the 12 consective month period

V_A = VOC content of Arcel® based beads from lot x, in percent by weight expressed as a decimal

L_A = Overall emission loss rate for Arcel® based bead usage (98.7% of raw material VOC content)

Operations	VOC Emissions Loss Rate (%) of EPS-based bead	VOC Emissions Loss Rate (%) of Arcel® based bead
3 Hirsch 6000 pre-expanders	25	41
5 Kurtz 813 molding presses	13	5
4 Kurtz 68 molding presses		
2 Kurtz 1014 molding presses		
6 Kurtz 13517 molding presses		
4 molding presses		
34 Pre-puff storage silos	19	23
1 Finished goods storage	30.2	30
1 Tunnel oven	11.5	-
Total	98.7	98.7

(b) Compliance with the VOC limit in Condition D.1.2 shall be demonstrated using the following equation:

T_{PL} = VOC emissions from EPS based beads + VOC emissions from Arcel® based beads

= $\sum (U_E * V_E * L_{EE}) + \sum (U_A * V_A * L_{AE})$/ (2,000 pounds/ton)

Where:

T_{PL} = Total VOC emissions from each pre-expander (tons per 12-consective month period)

PE2
PE4
PE5

U_E = Pounds of EPS-based beads from lot x used during the 12 consective month period

V_E = VOC content of EPS-based beads from lot x, in percent by weight expressed as a decimal

L_{EE} = Pre-expansion phase emission loss rate for EPS-based bead usage (25% of VOC content of raw material)

U_A = Pounds of Arcel® based beads from lot x used during the 12 consective month period

V_A = VOC content of Arcel® based beads from lot x, in percent by weight expressed as a decimal

L_{AE} = Pre-expansion phase emission loss rate for Arcel® based bead usage (41% of VOC content of raw material)

Record Keeping and Reporting Requirements [326 IAC 2-7-5 (3)] [326 IAC 2-7-19]

D.1.5 Record Keeping Requirement

(a) To document compliance with Conditions D.1.1, and D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC emissions limits established in Conditions D.1.1 and D.1.2. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

(1) Weighted-average VOC content of EPS and Arcel® beads used during the month;

(2) The total amount of EPS and Arcel® beads used each month in pounds;

(3) Records shall include:

(A) Material supplier "certificates of analysis" depicting the VOC content of each lot of material processed during the month;

(B) Pre-expander production logs depicting the quantity in pounds and date of each batch of material processed during the month;

(4) The total amount of VOC emitted each month in tons for the following as determined by using the equations in D.1.5:

3 Hirsch 6000 pre-expanders
5 Kurtz 813 molding presses
4 Kurtz 68 molding presses
2 Kurtz 1014 molding presses
6 Kurtz 13517 molding presses
4 Molding presses
34 Pre-puff storage silos
1 Finished goods storage
1 Tunnel oven

(5) The total amount of VOC emitted in tons since the last compliance determination period.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.6 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.1.1, and D.1.2, shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1(35).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(j) Three (3) boilers:

(1) One (1) natural gas-fired boiler, identified as B1, constructed in 1979, with #2 fuel oil as backup, with a maximum heat input capacity of 10.5 MMBtu per hour, uncontrolled, and exhausting to stack B1.

(2) One (1) natural gas-fired boiler, identified as B2, constructed in 1981, with #2 fuel oil as backup, with a maximum heat input capacity of 12.6 MMBtu per hour, uncontrolled, and exhausting to stack B2.

(3) One (1) natural gas-fired boiler, identified as B3, permitted in 2011, with a maximum heat input capacity of 29.3 MMBtu per hour, uncontrolled, and exhausting to stack S-B3.

Under 40 CFR 60, Subpart Dc, the above boiler is considered an affected facility.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2]

(a) Pursuant to 326 IAC 6-2-3(e), the PM emissions from boiler, B1, shall not exceed 0.6 pound per MMBtu.

(b) Pursuant to 326 IAC 6-2-3(e), the PM emissions from boilers, B2, shall not exceed 0.6 pound per MMBtu.

(c) Pursuant to 326 IAC 6-2-4, the PM emissions from the boiler, B3, shall not exceed 0.38 pound per MMBtu.

D.2.2 Sulfur Dioxide Rules [326 IAC 7]

(a) Pursuant to 326 IAC 7-1.1-2(a)(3), the sulfur dioxide emissions from boiler, B1, shall not exceed five-tenths (0.5) pound per MMBtu heat input when burning #2 fuel oil.

(b) Pursuant to 326 IAC 7-1.1-2(a)(3), the sulfur dioxide emissions from boiler, B2, shall not exceed five-tenths (0.5) pound per MMBtu heat input when burning #2 fuel oil.

#2 fuel oil is considered distillate oil.

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5 (12)]

A Preventive Maintenance Plan (PMP) is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements [326 IAC 2-7-5(1)]

D.2.4 Sulfur Dioxide Emissions and Sulfur Content

In order to comply with Condition D.2.2, the Permittee shall comply with the following:

(a) Pursuant to 326 IAC 7-2-1(d)(2), compliance shall be determined using a calendar month

average sulfur dioxide emission rate in pounds per MMBtu.

(b) Compliance shall be determined using one of the following options:

(i) Pursuant to 326 IAC 7-2-1(h)(3) and (4), the Permittee shall demonstrate compliance by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, in accordance with 326 IAC 3-7-6 or;

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19, accordance with 326 IAC 3-6.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(ii) Pursuant to 326 IAC 7-2-1(h)(1), compliance may also be determined by conducting a stack test for sulfur dioxide emissions from boilers, B1 and B2, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in Condition D.2.4 (b)(i) or (ii) shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

D.2.5 Visible Emissions Notations

(a) When burning #2 fuel oil only, visible emission notations of stack exhaust from the following shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal:

Boiler, B1
Boiler, B2

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C - Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.6 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO_2 emission limit established in Condition D.2.2.

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel oil usage since last compliance determination period and equivalent calculated sulfur dioxide emissions;

(3) To certify compliance when burning natural gas only, the Permittee shall maintain records of fuel used.

(4) If the fuel vendor certification is used to demonstrate compliance, the following, as a minimum, shall be maintained:

(i) Fuel supplier certifications;

(ii) The name of the fuel vendor; and

(iii) A statement from the fuel vendor that certifies the sulfur content of the fuel oil.

(5) If oil sampling is used to determine the sulfur content of the oil and to demonstrate compliance, analysis of the oil sample shall be maintained.

(6) If conducting a stack test for sulfur dioxide emissions is used to demonstrate compliance, the stack test results, as a minimum, shall be maintained.

(b) To document compliance with Condition D.2.5, the Permittee shall maintain a log of daily visible emission notations of stack exhaust from the following:

Boiler, B1
Boiler, B2

The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (i.e. the process did not operate that day or the boilers did not burn #2 fuel).

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Insignificant Activities:

(a) Eighteen (18) natural gas-fired space heaters, uncontrolled, exhausting outdoors, and consisting of the following:

Number of Units	Year of Construction	Maximum Capacity of each unit (MMBtu/hour)
4	2002	0.125
9	2006	0.150
1	2015	0.200
3	2016	0.200
1	2017	0.150

(b) One (1) flame cutting torch, constructed in 2003, with a maximum metal cutting capacity of 4 inches per minute, uncontrolled, and exhausting indoors.

(c) One (1) Polystyrene scrap grinding operation, constructed prior to 2010, with maximum process weight rate of 1210 pounds per hour (with a maximum of 25% of bead products used as scrap), using a filter bag vacuum system for particulate control, and exhausting indoors.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2]

Pursuant to 326 IAC 6-2-4, the PM emissions from each of the emission units listed in the table below, shall not exceed pound per MMBtu limit as follow:

Number of Space Heaters	Year of Construction	Limit (lb PM/ MMBtu)
4	2002	0.48
9	2006	0.47
1	2015	0.38
3	2016	0.38
1	2017	0.38

D.3.2 Preventive Maintenance Plan [326 IAC 2-7-5 (12)]

A Preventive Maintenance Plan (PMP) is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

SECTION E.1 NSPS

Emissions Unit Description:

(j)

(3) One (1) natural gas-fired boiler, identified as B3, permitted in 2011, with a maximum heat input capacity of 29.3 MMBtu per hour, uncontrolled, and exhausting to stack S-B3.

Under 40 CFR 60, Subpart Dc, the above boiler is considered an affected facility.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

E.1.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission unit listed above, except as otherwise specified in 40 CFR Part 60, Subpart Dc.

(b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.1.2 Small Industrial - Commercial - Institutional Steam Generating Units NSPS [326 IAC 12] [40 CFR Part 60, Subpart Dc]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Dc (included as Attachment A to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission unit listed above:

(1) 40 CFR 60.40c
(2) 40 CFR 60.41c
(3) 40 CFR 60.48c(a)(1)
(4) 40 CFR 60.48c(g)(2)
(5) 40 CFR 60.48c(i)
(6) 40 CFR 60.48c(j)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: Sonoco Protective Solutions, Inc.
Source Address: 1619 North Meridian Street, Portland, Indiana 47371
Part 70 Permit No.: T075-39639-00024

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)

☐ Report (specify)

☐ Notification (specify)

☐ Affidavit (specify)

☐ Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Sonoco Protective Solutions, Inc.
Source Address: 1619 North Meridian Street, Portland, Indiana 47371
Part 70 Permit No.: T075-39639-00024

This form consists of 2 pages **Page 1 of 2**

□ This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) daytime business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Sonoco Protective Solutions, Inc.
Source Address: 1619 North Meridian Street, Portland, Indiana 47371
Part 70 Permit No.: T075-39639-00024
Facility:

3 Hirsch 6000 pre-expanders
5 Kurtz 813 molding presses
4 Kurtz 68 molding presses
2 Kurtz 1014 molding presses
6 Kurtz 13517 molding presses
4 Molding presses
34 Pre-puff storage silos
1 Finished goods storage
1 Tunnel oven

Parameter: VOC emissions
Limit: The total VOC emissions from the above mentioned operations shall not exceed 245 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Sonoco Protective Solutions, Inc.
Source Address: 1619 North Meridian Street, Portland, Indiana 47371
Part 70 Permit No.: T075-39639-00024
Facility: Pre-expander, PE2
Parameter: VOC emissions
Limit: The total VOC emissions from PE2 shall not exceed 24.99 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Sonoco Protective Solutions, Inc.
Source Address: 1619 North Meridian Street, Portland, Indiana 47371
Part 70 Permit No.: T075-39639-00024
Facility: Pre-expander, PE4
Parameter: VOC emissions
Limit: The total VOC emissions from PE4 shall not exceed 24.99 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Sonoco Protective Solutions, Inc.
Source Address: 1619 North Meridian Street, Portland, Indiana 47371
Part 70 Permit No.: T075-39639-00024
Facility: Pre-expander, PE5
Parameter: VOC emissions
Limit: The total VOC emissions from PE5 shall not exceed 24.99 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Sonoco Protective Solutions, Inc.
Source Address: 1619 North Meridian Street, Portland, Indiana 47371
Part 70 Permit No.: T075-39639-00024

Months: _____ to _____ Year: _____

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C-General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attachment A

Part 70 Operating Permit No: T075-39639-00024

[Downloaded from the eCFR on May 13, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

Source: 72 FR 32759, June 13, 2007, unless otherwise noted.

§ 60.40c Applicability and delegation of authority.

(a) Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, § 60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO_2) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§ 60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in § 60.41c.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under § 60.14.

(e) Affected facilities (*i.e.* heat recovery steam generators and fuel heaters) that are associated with stationary combustion turbines and meet the applicability requirements of subpart KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other heat recovery steam generators, fuel heaters, and other affected facilities that are capable of combusting more than or equal to 2.9 MW (10 MMBtu/h) heat input of fossil fuel but less than or equal to 29 MW (100 MMBtu/h) heat input of fossil fuel. If the heat recovery steam generator, fuel heater, or other affected facility is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The stationary combustion turbine emissions are subject to subpart GG or KKKK, as applicable, of this part.)

(f) Any affected facility that meets the applicability requirements of and is subject to subpart AAAA or subpart CCCC of this part is not subject to this subpart.

(g) Any facility that meets the applicability requirements and is subject to an EPA approved State or Federal section 111(d)/129 plan implementing subpart BBBB of this part is not subject to this subpart.

(h) Affected facilities that also meet the applicability requirements under subpart J or subpart Ja of this part are subject to the PM and NO_X standards under this subpart and the SO_2 standards under subpart J or subpart Ja of this part, as applicable.

(i) Temporary boilers are not subject to this subpart.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9461, Feb. 16, 2012]

§ 60.41c Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see § 60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of creating useful heat, including but not limited to solvent refined coal, gasified coal not meeting the definition of natural gas, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

Combined cycle system means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Combustion research means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (*i.e.* , the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

Conventional technology means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see § 60.17), diesel fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see § 60.17), kerosine, as defined by the American Society of Testing and Materials in ASTM D3699 (incorporated by reference, see § 60.17), biodiesel as defined by the American Society of Testing and Materials in ASTM D6751 (incorporated by reference, see § 60.17), or biodiesel blends as defined by the American Society of Testing and Materials in ASTM D7467 (incorporated by reference, see § 60.17).

Dry flue gas desulfurization technology means a SO_2 control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Emerging technology means any SO_2 control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under § 60.48c(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 51.24.

Fluidized bed combustion technology means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

Heat transfer medium means any material that is used to transfer heat from one point to another point.

Maximum design heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

Natural gas means:

(1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or

(2) Liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see § 60.17); or

(3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

Potential sulfur dioxide emission rate means the theoretical SO_2 emissions (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see § 60.17).

Steam generating unit means a device that combusts any fuel and produces steam or heats water or heats any heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Temporary boiler means a steam generating unit that combusts natural gas or distillate oil with a potential SO_2 emissions rate no greater than 26 ng/J (0.060 lb/MMBtu), and the unit is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. A steam generating unit is not a temporary boiler if any one of the following conditions exists:

(1) The equipment is attached to a foundation.

(2) The steam generating unit or a replacement remains at a location for more than 180 consecutive days. Any temporary boiler that replaces a temporary boiler at a location and performs the same or similar function will be included in calculating the consecutive time period.

(3) The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.

(4) The equipment is moved from one location to another in an attempt to circumvent the residence time requirements of this definition.

Wet flue gas desulfurization technology means an SO_2 control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO_2 .

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9461, Feb. 16, 2012]

§ 60.42c Standard for sulfur dioxide (SO2).

(a) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the performance test is completed or required to be completed under § 60.8, whichever date comes first, the owner or operator of an affected facility that combusts only coal shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2 emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2 emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of the emission limit is determined pursuant to paragraph (e)(2) of this section.

(b) Except as provided in paragraphs (c) and (e) of this section, on and after the date on which the performance test is completed or required to be completed under § 60.8, whichever date comes first, the owner or operator of an affected facility that:

(1) Combusts only coal refuse alone in a fluidized bed combustion steam generating unit shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 20 percent (0.20) of the potential SO_2 emission rate (80 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of SO_2 in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is fired with coal refuse, the affected facility subject to paragraph (a) of this section. If oil or any other fuel (except coal) is fired with coal refuse, the affected facility is subject to the 87 ng/J (0.20 lb/MMBtu) heat input SO_2 emissions limit or the 90 percent SO_2 reduction requirement specified in paragraph (a) of this section and the emission limit is determined pursuant to paragraph (e)(2) of this section.

(2) Combusts only coal and that uses an emerging technology for the control of SO_2 emissions shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 50 percent (0.50) of the potential SO_2 emission rate (50 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 260 ng/J (0.60 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 50 percent SO_2 reduction requirement specified in this paragraph and the emission limit determined pursuant to paragraph (e)(2) of this section.

(c) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, alone or in combination with any other fuel, and is listed in paragraphs (c)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of the emission limit determined pursuant to paragraph (e)(2) of this section. Percent reduction requirements are not applicable to affected facilities under paragraphs (c)(1), (2), (3), or (4).

(1) Affected facilities that have a heat input capacity of 22 MW (75 MMBtu/h) or less;

(2) Affected facilities that have an annual capacity for coal of 55 percent (0.55) or less and are subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for coal of 55 percent (0.55) or less.

(3) Affected facilities located in a noncontinental area; or

(4) Affected facilities that combust coal in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from exhaust gases entering the duct burner.

(d) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 215 ng/J (0.50 lb/MMBtu) heat input from oil; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

(e) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or coal and oil with any other fuel shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of the following:

(1) The percent of potential SO_2 emission rate or numerical SO_2 emission rate required under paragraph (a) or (b)(2) of this section, as applicable, for any affected facility that

(i) Combusts coal in combination with any other fuel;

(ii) Has a heat input capacity greater than 22 MW (75 MMBtu/h); and

(iii) Has an annual capacity factor for coal greater than 55 percent (0.55); and

(2) The emission limit determined according to the following formula for any affected facility that combusts coal, oil, or coal and oil with any other fuel:

$$E_s = \frac{(K_a H_a + K_b H_b + K_c H_c)}{(H_a + H_b + H_c)}$$

Where:

E_s = SO_2 emission limit, expressed in ng/J or lb/MMBtu heat input;

K_a = 520 ng/J (1.2 lb/MMBtu);

K_b = 260 ng/J (0.60 lb/MMBtu);

K_c = 215 ng/J (0.50 lb/MMBtu);

H_a = Heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [MMBtu];

H_b = Heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (MMBtu); and

H_c = Heat input from the combustion of oil, in J (MMBtu).

(f) Reduction in the potential SO_2 emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:

(1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO_2 emission rate; and

(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO_2 control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.

(g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.

(h) For affected facilities listed under paragraphs (h)(1), (2), (3), or (4) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under § 60.48c(f), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 MMBtu/hr).

(2) Residual oil-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).

(3) Coal-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/h).

(4) Other fuels-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/h).

(i) The SO_2 emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(j) For affected facilities located in noncontinental areas and affected facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9462, Feb. 16, 2012]

§ 60.43c Standard for particulate matter (PM).

(a) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal or combusts mixtures of coal with other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 22 ng/J (0.051 lb/MMBtu) heat input if the affected facility combusts only coal, or combusts coal with other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility combusts coal with other fuels, has an annual capacity factor for the other fuels greater than 10 percent (0.10), and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

(b) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts wood or combusts mixtures of wood with other fuels (except coal) and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emissions limits:

(1) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood greater than 30 percent (0.30); or

(2) 130 ng/J (0.30 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood of 30 percent (0.30) or less and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for wood of 30 percent (0.30) or less.

(c) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Owners and operators of an affected facility that elect to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to the requirements of this subpart and are subject to a federally enforceable PM limit of 0.030 lb/MMBtu or less are exempt from the opacity standard specified in this paragraph (c).

(d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.

(e)(1) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input, except as provided in paragraphs (e)(2), (e)(3), and (e)(4) of this section.

(2) As an alternative to meeting the requirements of paragraph (e)(1) of this section, the owner or operator of an affected facility for which modification commenced after February 28, 2005, may elect to meet the requirements of this paragraph. On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commences modification

after February 28, 2005 shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of both:

(i) 22 ng/J (0.051 lb/MMBtu) heat input derived from the combustion of coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels; and

(ii) 0.2 percent of the combustion concentration (99.8 percent reduction) when combusting coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels.

(3) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

(4) An owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under § 60.43c and not using a post-combustion technology (except a wet scrubber) to reduce PM or SO_2 emissions is not subject to the PM limit in this section.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 77 FR 9462, Feb. 16, 2012]

§ 60.44c Compliance and performance test methods and procedures for sulfur dioxide.

(a) Except as provided in paragraphs (g) and (h) of this section and § 60.8(b), performance tests required under § 60.8 shall be conducted following the procedures specified in paragraphs (b), (c), (d), (e), and (f) of this section, as applicable. Section 60.8(f) does not apply to this section. The 30-day notice required in § 60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(b) The initial performance test required under § 60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO_2 emission limits under § 60.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affect facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period does not have to be the maximum design heat input capacity, but must be representative of future operating conditions.

(c) After the initial performance test required under paragraph (b) of this section and § 60.8, compliance with the percent reduction requirements and SO_2 emission limits under § 60.42c is based on the average percent reduction and the average SO_2 emission rates for 30 consecutive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day, and a new 30-day average percent reduction and SO_2 emission rate are calculated to show compliance with the standard.

(d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19 of appendix A of this part are used to determine the hourly SO_2 emission rate (E_{ho}) and the 30-day average SO_2 emission rate (E_{ao}). The hourly averages used to compute the 30-day averages are obtained from the CEMS. Method 19 of appendix A of this part shall be used to calculate E_{ao} when using daily fuel sampling or Method 6B of appendix A of this part.

(e) If coal, oil, or coal and oil are combusted with other fuels:

(1) An adjusted E_{ho} (E_{ho} o) is used in Equation 19-19 of Method 19 of appendix A of this part to compute the adjusted E_{ao} (E_{ao} o). The E_{ho} o is computed using the following formula:

$$E_{ho}o = \frac{E_{ho} - E_w(1 - X_j)}{X_j}$$

Where:

E_{ho} o = Adjusted E_{ho} , ng/J (lb/MMBtu);

E_{ho} = Hourly SO_2 emission rate, ng/J (lb/MMBtu);

E_w = SO_2 concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 9 of appendix A of this part, ng/J (lb/MMBtu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E_w if the owner or operator elects to assume E_w = 0.

X_k = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(2) The owner or operator of an affected facility that qualifies under the provisions of § 60.42c(c) or (d) (where percent reduction is not required) does not have to measure the parameters E_w or X_k if the owner or operator of the affected facility elects to measure emission rates of the coal or oil using the fuel sampling and analysis procedures under Method 19 of appendix A of this part.

(f) Affected facilities subject to the percent reduction requirements under § 60.42c(a) or (b) shall determine compliance with the SO_2 emission limits under § 60.42c pursuant to paragraphs (d) or (e) of this section, and shall determine compliance with the percent reduction requirements using the following procedures:

(1) If only coal is combusted, the percent of potential SO_2 emission rate is computed using the following formula:

$$\%P_s = 100\left(1 - \frac{\%R_g}{100}\right)\left(1 - \frac{\%R_f}{100}\right)$$

Where:

$\%P_s$ = Potential SO_2 emission rate, in percent;

$\%R_g$ = SO_2 removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent; and

$\%R_f$ = SO_2 removal efficiency of fuel pretreatment as determined by Method 19 of appendix A of this part, in percent.

(2) If coal, oil, or coal and oil are combusted with other fuels, the same procedures required in paragraph (f)(1) of this section are used, except as provided for in the following:

(i) To compute the $\%P_s$, an adjusted $\%R_g$ ($\%R_g$ o) is computed from E_{ao} o from paragraph (e)(1) of this section and an adjusted average SO_2 inlet rate (E_{ai} o) using the following formula:

$$\%R_g o = 100\left(1 - \frac{E^{\circ}_{ao}}{E^{\circ}_{ai}}\right)$$

Where:

$\%R_g$ o = Adjusted $\%R_g$, in percent;

E_{ao} o = Adjusted E_{ao} , ng/J (lb/MMBtu); and

E_{ai} o = Adjusted average SO_2 inlet rate, ng/J (lb/MMBtu).

(ii) To compute E_{ai} o, an adjusted hourly SO_2 inlet rate (E_{hi} o) is used. The E_{hi} o is computed using the following formula:

$$E_{hi}o = \frac{E_{hi} - E_w(1 - X_k)}{X_k}$$

Where:

E_{hi} o = Adjusted E_{hi} , ng/J (lb/MMBtu);

E_{hi} = Hourly SO_2 inlet rate, ng/J (lb/MMBtu);

E_w = SO_2 concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E_w if the owner or operator elects to assume E_w = 0; and

X_k = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(g) For oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under § 60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under § 60.46c(d)(2).

(h) For affected facilities subject to § 60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO_2 standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described in § 60.48c(f), as applicable.

(i) The owner or operator of an affected facility seeking to demonstrate compliance with the SO_2 standards under § 60.42c(c)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(j) The owner or operator of an affected facility shall use all valid SO_2 emissions data in calculating $\%P_s$ and E_{ho} under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under § 60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating $\%P_s$ or E_{ho} pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

§ 60.45c Compliance and performance test methods and procedures for particulate matter.

(a) The owner or operator of an affected facility subject to the PM and/or opacity standards under § 60.43c shall conduct an initial performance test as required under § 60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods, except as specified in paragraph (c) of this section.

(1) Method 1 of appendix A of this part shall be used to select the sampling site and the number of traverse sampling points.

(2) Method 3A or 3B of appendix A-2 of this part shall be used for gas analysis when applying Method 5 or 5B of appendix A-3 of this part or 17 of appendix A-6 of this part.

(3) Method 5, 5B, or 17 of appendix A of this part shall be used to measure the concentration of PM as follows:

(i) Method 5 of appendix A of this part may be used only at affected facilities without wet scrubber systems.

(ii) Method 17 of appendix A of this part may be used at affected facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of Sections 8.1 and 11.1 of Method 5B of appendix A of this part may be used in Method 17 of appendix A of this part only if Method 17 of appendix A of this part is used in conjunction with a wet scrubber system. Method 17 of appendix A of this part shall not be used in conjunction with a wet scrubber system if the effluent is saturated or laden with water droplets.

(iii) Method 5B of appendix A of this part may be used in conjunction with a wet scrubber system.

(4) The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry standard cubic meters (dscm) [60 dry standard cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(5) For Method 5 or 5B of appendix A of this part, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160 ±14 °C (320±25 °F).

(6) For determination of PM emissions, an oxygen (O_2) or carbon dioxide (CO_2) measurement shall be obtained simultaneously with each run of Method 5, 5B, or 17 of appendix A of this part by traversing the duct at the same sampling location.

(7) For each run using Method 5, 5B, or 17 of appendix A of this part, the emission rates expressed in ng/J (lb/MMBtu) heat input shall be determined using:

(i) The O_2 or CO_2 measurements and PM measurements obtained under this section, (ii) The dry basis F factor, and

(iii) The dry basis emission rate calculation procedure contained in Method 19 of appendix A of this part.

(8) Method 9 of appendix A-4 of this part shall be used for determining the opacity of stack emissions.

(b) The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under § 60.43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(c) In place of PM testing with Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor PM emissions instead of conducting performance testing using Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part shall install, calibrate, maintain, and operate a CEMS and shall comply with the requirements specified in paragraphs (c)(1) through (c)(14) of this section.

(1) Notify the Administrator 1 month before starting use of the system.

(2) Notify the Administrator 1 month before stopping use of the system.

(3) The monitor shall be installed, evaluated, and operated in accordance with § 60.13 of subpart A of this part.

(4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under § 60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of CEMS if the owner or operator was previously determining compliance by Method 5, 5B, or 17 of appendix A of this part performance tests, whichever is later.

(5) The owner or operator of an affected facility shall conduct an initial performance test for PM emissions as required under § 60.8 of subpart A of this part. Compliance with the PM emission limit shall be determined by using the CEMS specified in paragraph (d) of this section to measure PM and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19 of appendix A of this part, section 4.1.

(6) Compliance with the PM emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using CEMS outlet data.

(7) At a minimum, valid CEMS hourly averages shall be obtained as specified in paragraph (c)(7)(i) of this section for 75 percent of the total operating hours per 30-day rolling average.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) [Reserved]

(8) The 1-hour arithmetic averages required under paragraph (c)(7) of this section shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under § 60.13(e)(2) of subpart A of this part.

(9) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (c)(7) of this section are not met.

(10) The CEMS shall be operated according to Performance Specification 11 in appendix B of this part.

(11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O_2 (or CO_2) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and performance tests conducted using the following test methods.

(i) For PM, Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part shall be used; and

(ii) For O2 (or CO_2), Method 3A or 3B of appendix A-2 of this part, as applicable shall be used.

(12) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years.

(13) When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 of appendix A of this part to provide, as necessary, valid emissions data for a minimum of 75 percent of total operating hours on a 30-day rolling average.

(14) As of January 1, 2012, and within 90 days after the date of completing each performance test, as defined in § 60.8, conducted to demonstrate compliance with this subpart, you must submit relative accuracy test audit (*i.e.,* reference method) data and performance test (*i.e.,* compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/ert tool.html/*) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

(d) The owner or operator of an affected facility seeking to demonstrate compliance under § 60.43c(e)(4) shall follow the applicable procedures under § 60.48c(f). For residual oil-fired affected facilities, fuel supplier certifications are only allowed for facilities with heat input capacities between 2.9 and 8.7 MW (10 to 30 MMBtu/h).

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011; 77 FR 9463, Feb. 16, 2012]

§ 60.46c Emission monitoring for sulfur dioxide.

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or operator of an affected facility subject to the SO_2 emission limits under § 60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO_2 concentrations and either O_2 or CO_2 concentrations at the outlet of the SO_2 control device (or the outlet of the steam generating unit if no SO_2 control device is used), and shall record the output of the system. The owner or operator of an affected facility subject to the percent reduction requirements under § 60.42c shall measure SO_2 concentrations and either O_2 or CO_2 concentrations at both the inlet and outlet of the SO_2 control device.

(b) The 1-hour average SO_2 emission rates measured by a CEMS shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under § 60.42c. Each 1-hour average SO_2 emission rate must be based on at least 30 minutes of operation, and shall be calculated using the data points required under § 60.13(h)(2). Hourly SO_2 emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.

(c) The procedures under § 60.13 shall be followed for installation, evaluation, and operation of the CEMS.

(1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 of appendix B of this part.

(2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 of appendix F of this part.

(3) For affected facilities subject to the percent reduction requirements under § 60.42c, the span value of the SO_2 CEMS at the inlet to the SO_2 control device shall be 125 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted, and the span value of the SO_2 CEMS at the outlet from the SO_2 control device shall be 50 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted.

(4) For affected facilities that are not subject to the percent reduction requirements of § 60.42c, the span value of the SO_2 CEMS at the outlet from the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) shall be 125 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted.

(d) As an alternative to operating a CEMS at the inlet to the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2 emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEMS at the outlet from the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2 emission rate by using Method 6B of appendix A of this part. Fuel sampling shall be conducted pursuant to either paragraph (d)(1) or (d)(2) of this section. Method 6B of appendix A of this part shall be conducted pursuant to paragraph (d)(3) of this section.

(1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content and heat content according the Method 19 of appendix A of this part. Method 19 of appendix A of this part provides procedures for converting these measurements into the format to be used in calculating the average SO_2 input rate.

(2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fuel tank is filled and before any oil is combusted. The owner or operator of the affected facility shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when

calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall ensure that the sulfur content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

(3) Method 6B of appendix A of this part may be used in lieu of CEMS to measure SO_2 at the inlet or outlet of the SO_2 control system. An initial stratification test is required to verify the adequacy of the Method 6B of appendix A of this part sampling location. The stratification test shall consist of three paired runs of a suitable SO_2 and CO_2 measurement train operated at the candidate location and a second similar train operated according to the procedures in § 3.2 and the applicable procedures in section 7 of Performance Specification 2 of appendix B of this part. Method 6B of appendix A of this part, Method 6A of appendix A of this part, or a combination of Methods 6 and 3 of appendix A of this part or Methods 6C and 3A of appendix A of this part are suitable measurement techniques. If Method 6B of appendix A of this part is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B of appendix A of this part 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent (0.10).

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to § 60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO_2 standards based on fuel supplier certification, as described under § 60.48c(f), as applicable.

(f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

§ 60.47c Emission monitoring for particulate matter.

(a) Except as provided in paragraphs (c), (d), (e), and (f) of this section, the owner or operator of an affected facility combusting coal, oil, or wood that is subject to the opacity standards under § 60.43c shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility subject to an opacity standard in § 60.43c(c) that is not required to use a COMS due to paragraphs (c), (d), (e), or (f) of this section that elects not to use a COMS shall conduct a performance test using Method 9 of appendix A-4 of this part and the procedures in § 60.11 to demonstrate compliance with the applicable limit in § 60.43c by April 29, 2011, within 45 days of stopping use of an existing COMS, or within 180 days after initial startup of the facility, whichever is later, and shall comply with either paragraphs (a)(1), (a)(2), or (a)(3) of this section. The observation period for Method 9 of appendix A-4 of this part performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation.

(1) Except as provided in paragraph (a)(2) and (a)(3) of this section, the owner or operator shall conduct subsequent Method 9 of appendix A-4 of this part performance tests using the procedures in paragraph (a) of this section according to the applicable schedule in paragraphs (a)(1)(i) through (a)(1)(iv) of this section, as determined by the most recent Method 9 of appendix A-4 of this part performance test results.

(i) If no visible emissions are observed, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;

(ii) If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;

(iii) If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 3 calendar months from

the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; or

(iv) If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 45 calendar days from the date that the most recent performance test was conducted.

(2) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A-4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A-4 of this part performance tests, elect to perform subsequent monitoring using Method 22 of appendix A-7 of this part according to the procedures specified in paragraphs (a)(2)(i) and (ii) of this section.

(i) The owner or operator shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using Method 22 of appendix A-7 of this part and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (*i.e.* , 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period (*i.e.,* 90 seconds per 30 minute period), the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observation (*i.e.,* 90 seconds) or conduct a new Method 9 of appendix A-4 of this part performance test using the procedures in paragraph (a) of this section within 45 calendar days according to the requirements in § 60.45c(a)(8).

(ii) If no visible emissions are observed for 10 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed.

(3) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A-4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A-4 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Administrator. The observations shall be similar, but not necessarily identical, to the requirements in paragraph (a)(2) of this section. For reference purposes in preparing the monitoring plan, see OAQPS “Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems.” This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods.

(b) All COMS shall be operated in accordance with the applicable procedures under Performance Specification 1 of appendix B of this part. The span value of the opacity COMS shall be between 60 and 80 percent.

(c) Owners and operators of an affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J (0.060 lb/MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO2 or PM emissions and that are subject to an opacity standard in § 60.43c(c) are not required to operate a COMS if they follow the applicable procedures in § 60.48c(f).

(d) Owners or operators complying with the PM emission limit by using a PM CEMS must calibrate, maintain, operate, and record the output of the system for PM emissions discharged to the atmosphere as specified in § 60.45c(c). The CEMS specified in paragraph § 60.45c(c) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(e) Owners and operators of an affected facility that is subject to an opacity standard in § 60.43c(c) and that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO_2 , or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur, and is operated such that emissions of CO discharged to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis is not required to operate a COMS. Owners and

operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (e)(1) through (4) of this section; or

(1) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (e)(1)(i) through (iv) of this section.

(i) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in § 60.58b(i)(3) of subpart Eb of this part.

(ii) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).

(iii) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. The 1-hour averages are calculated using the data points required in § 60.13(h)(2).

(iv) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of this part.

(2) You must calculate the 1-hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the affected source. The 24-hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.

(3) You must evaluate the preceding 24-hour average CO emission level each steam generating unit operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 0.15 lb/MMBtu, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the 24-hour average CO emission level to 0.15 lb/MMBtu or less.

(4) You must record the CO measurements and calculations performed according to paragraph (e) of this section and any corrective actions taken. The record of corrective action taken must include the date and time during which the 24-hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.

(f) An owner or operator of an affected facility that is subject to an opacity standard in § 60.43c(c) is not required to operate a COMS provided that the affected facility meets the conditions in either paragraphs (f)(1), (2), or (3) of this section.

(1) The affected facility uses a fabric filter (baghouse) as the primary PM control device and, the owner or operator operates a bag leak detection system to monitor the performance of the fabric filter according to the requirements in section § 60.48Da of this part.

(2) The affected facility uses an ESP as the primary PM control device, and the owner or operator uses an ESP predictive model to monitor the performance of the ESP developed in accordance and operated according to the requirements in section § 60.48Da of this part.

(3) The affected facility burns only gaseous fuels and/or fuel oils that contain no greater than 0.5 weight percent sulfur, and the owner or operator operates the unit according to a written site-specific monitoring plan approved by the permitting authority. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard. For testing performed as part of this site-specific monitoring plan, the permitting authority may require as an alternative to the notification and reporting requirements specified in §§ 60.8 and 60.11 that the owner or operator submit any deviations with the excess emissions report required under § 60.48c(c).

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011; 77 FR 9463, Feb. 16, 2012]

§ 60.48c Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by § 60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under § 60.42c, or § 60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(4) Notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of § 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO_2 emission limits of § 60.42c, or the PM or opacity limits of § 60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS and/or COMS using the applicable performance specifications in appendix B of this part.

(c) In addition to the applicable requirements in § 60.7, the owner or operator of an affected facility subject to the opacity limits in § 60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period and maintain records according to the requirements specified in paragraphs (c)(1) through (3) of this section, as applicable to the visible emissions monitoring method used.

(1) For each performance test conducted using Method 9 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(1)(i) through (iii) of this section.

(i) Dates and time intervals of all opacity observation periods;

(ii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and

(iii) Copies of all visible emission observer opacity field data sheets;

(2) For each performance test conducted using Method 22 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(2)(i) through (iv) of this section.

(i) Dates and time intervals of all visible emissions observation periods;

(ii) Name and affiliation for each visible emission observer participating in the performance test;

(iii) Copies of all visible emission observer opacity field data sheets; and

(iv) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements.

(3) For each digital opacity compliance system, the owner or operator shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the Administrator

(d) The owner or operator of each affected facility subject to the SO_2 emission limits, fuel oil sulfur limits, or percent reduction requirements under § 60.42c shall submit reports to the Administrator.

(e) The owner or operator of each affected facility subject to the SO_2 emission limits, fuel oil sulfur limits, or percent reduction requirements under § 60.42c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average SO_2 emission rate (ng/J or lb/MMBtu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.

(3) Each 30-day average percent of potential SO_2 emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken.

(4) Identification of any steam generating unit operating days for which SO_2 or diluent (O_2 or CO_2) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken.

(5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

(6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted.

(7) Identification of whether averages have been obtained based on CEMS rather than manual sampling methods.

(8) If a CEMS is used, identification of any times when the pollutant concentration exceeded the full span of the CEMS.

(9) If a CEMS is used, description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specifications 2 or 3 of appendix B of this part.

(10) If a CEMS is used, results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), (3), or (4) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

(f) Fuel supplier certification shall include the following information:

(1) For distillate oil:

(i) The name of the oil supplier;

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in § 60.41c; and

(iii) The sulfur content or maximum sulfur content of the oil.

(2) For residual oil:

(i) The name of the oil supplier;

(ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;

(iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and

(iv) The method used to determine the sulfur content of the oil.

(3) For coal:

(i) The name of the coal supplier;

(ii) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the sample was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected);

(iii) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and

(iv) The methods used to determine the properties of the coal.

(4) For other fuels:

(i) The name of the supplier of the fuel;

(ii) The potential sulfur emissions rate or maximum potential sulfur emissions rate of the fuel in ng/J heat input; and

(iii) The method used to determine the potential sulfur emissions rate of the fuel.

(g)(1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in § 60.48c(f) to demonstrate compliance with the SO_2 standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

(3) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in § 60.42C to use fuel certification to demonstrate compliance with the SO_2 standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

(h) The owner or operator of each affected facility subject to a federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under § 60.42c or § 60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

Source Description and Location

Source Name:	**Sonoco Protective Solutions, Inc.**
Source Location:	**1619 North Meridian Street, Portland, Indiana 47371**
County:	**Jay**
SIC Code:	**3086 (Plastics Foam Products)**
Permit Renewal No.:	**T075-39639-00024**
Permit Reviewer:	**Rithika Reddy**

On February 19, 2018, Sonoco Protective Solutions, Inc., submitted an application to the Office of Air Quality (OAQ) requesting to renew its operating permit. OAQ has reviewed the operating permit renewal application from Sonoco Protective Solutions, Inc. relating to the operation of a stationary foam packaging manufacturing plant. Sonoco Protective Solutions, Inc. was issued its second Part 70 Operating Permit Renewal (T075-33287-00024) on November 27, 2013.

Permitted Emission Units and Pollution Control Equipment

Emission unit's descriptions have been revised for clarity.

The source consists of the following permitted emission units:

(a) Three (3) Hirsch 6000 pre-expanders, uncontrolled and consisting of the following:

Emission Unit ID	Year of Construction	EPS Maximum Capacity (lb/hr)	Arcel® Maximum Capacity (lb/hr)	Stack
PE2	2001	1,250	800	S-PE2
PE4	2011	1,250	800	S-PE4
PE5	2017	1,250	800	S-PE5

The pre-expanders are capable of processing only EPS based beads or Arcel® beads at any one time.
EPS refers to Expandable Polystyrene.
Arcel® refers to a polyethylene and polystyrene blended polymer product.

(b) Five (5) Kurtz 813 molding presses, uncontrolled and consisting of the following:

Emission Unit ID	Year of Construction	EPS Maximum Capacity (lb/hr)	Arcel® Maximum Capacity (lb/hr)	Exhausting
813-1	2011	200	160	Indoors and to stacks DV1-DV15
813-2		200	160	
813-3		200	160	
813-4		200	160	
813-5		200	160	

The molding presses are capable of processing only EPS based beads or Arcel® beads at any one time.
The maximum capacity of the Kurtz 813 molding presses is bottlenecked by the maximum capacity of the Hirsch 6000 pre-expanders.

(c) Four (4) Kurtz 68 molding presses, uncontrolled and consisting of the following:

Emission Unit ID	Year of Construction	EPS Maximum Capacity (lb/hr)	Arcel® Maximum Capacity (lb/hr)	Exhausting
68-1	2011	175	140	Indoors and to stacks DV1-DV15
68-2		175	140	
68-3		175	140	
68-4	2012	175	140	

The molding presses are capable of processing only EPS based beads or Arcel® beads at any one time.
The maximum capacity of the Kurtz 68 molding presses is bottlenecked by the maximum capacity of the Hirsch 6000 pre-expanders.

(d) Two (2) Kurtz 1014 molding presses, uncontrolled and consisting of the following:

Emission Unit ID	Year of Construction	EPS Maximum Capacity (lb/hr)	Arcel® Maximum Capacity (lb/hr)	Exhausting
1014-1	2011	250	200	Indoors and to stacks DV1-DV15
1014-2		250	200	

The molding presses are capable of processing only EPS based beads or Arcel® beads at any one time.
The maximum capacity of the Kurtz 1014 molding presses is bottlenecked by the maximum capacity of the Hirsch 6000 pre-expanders.

(e) Six (6) Kurtz 13517 molding presses, uncontrolled and consisting of the following:

Emission Unit ID	Year of Construction	EPS Maximum Capacity (lb/hr)	Arcel® Maximum Capacity (lb/hr)	Exhausting
13517	2011	300	240	Indoors and to stacks DV1-DV15
13517-2	2012	300	240	
13517-3		300	240	
13517-4		300	240	
13517-5		300	240	
13517-6		300	240	

The molding presses are capable of processing only EPS based beads or Arcel® beads at any one time.
The maximum capacity of the Kurtz 13517 molding presses is bottlenecked by the maximum capacity of the Hirsch 6000 pre-expanders.

(f) Four (4) Molding presses, uncontrolled and consisting of the following:

Emission Unit ID	Year of Construction	EPS Maximum Capacity (lb/hr)	Arcel® Maximum Capacity (lb/hr)	Exhausting
1400-1	2017	300	240	Indoors and to stacks DV1-DV15
1400-2		300	240	
1400-3		300	240	
MP-4*		300	240	

*Approved in 2017 to construct

The molding presses are capable of processing only EPS based beads or Arcel® beads at any one time.
The maximum capacity of the molding presses (1400-1 to 1400-3, and MP-4) is bottlenecked by the maximum capacity of the Hirsch 6000 pre-expanders.

In this renewal, the name of the presses have been changed from MP-1 - MP-3 to 1400-1 to 1400-3.

(g) Thirty-four (34) Pre-puff storage silos, uncontrolled and consisting of the following:

Emission Unit ID	Number of Units	Year of Construction	Maximum Capacity (lb) of each	Exhausting
PPS31 – PPS54	24	2016	1725	Outdoors through exhaust fans
PPS55 – PPS64	10	2016	2060	

The maximum capacity of the pre-puff storage silos is bottlenecked by the maximum capacity of the Hirsch 6000 pre-expanders.

(h) Finished goods storage, constructed prior to 1980**,** located inside the building, uncontrolled, and exhausting indoors.

(i) One (1) drying oven, heated by the boilers, identified as Tunnel Oven, constructed in 2016, with a maximum capacity of 521.5 pounds per hour of molded foam products, uncontrolled, and exhausting indoors.

This oven is only used to dry finished goods products made of EPS materials.
This oven will not be used to dry finished goods products made of Arcel® materials.
This oven is heated by the boilers B1, B2 and/or B3.

(j) Three (3) boilers:

(1) One (1) natural gas-fired boiler, identified as B1, constructed in 1979, with #2 fuel oil as backup, with a maximum heat input capacity of 10.5 MMBtu per hour, uncontrolled, and exhausting to stack B1.

(2) One (1) natural gas-fired boiler, identified as B2, constructed in 1981, with #2 fuel oil as backup, with a maximum heat input capacity of 12.6 MMBtu per hour, uncontrolled, and exhausting to stack B2.

(3) One (1) natural gas-fired boiler, identified as B3, permitted in 2011, with a maximum heat input capacity of 29.3 MMBtu per hour, uncontrolled, and exhausting to stack S-B3.

Under 40 CFR 60, Subpart Dc, the above boiler is considered an affected facility.

Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit

The source does not consist of any emission units that were constructed and/or operated without a permit.

Emission Units and Pollution Control Equipment Removed From the Source

The source has not removed any emission units.

Insignificant Activities

(1) This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) Eighteen (18) natural gas-fired space heaters, uncontrolled, exhausting outdoors, and consisting of the following:

Number of Units	Year of Construction	Maximum Capacity of each unit (MMBtu/hour)
4	2002	0.125
9	2006	0.150
1	2015	0.200
3	2016	0.200
1	2017	0.150

(b) One (1) flame cutting torch, constructed in 2003, with a maximum metal cutting capacity of 4 inches per minute, uncontrolled, and exhausting indoors.

(c) One (1) Polystyrene scrap grinding operation, constructed prior to 2010, with maximum process weight rate of 1210 pounds per hour (with a maximum of 25% of bead products used as scrap), using a filter bag vacuum system for particulate control, and exhausting indoors.

(2) This stationary source also includes the following insignificant activities which are not specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) Heat exchanger cleaning and repair.

(b) Blow down for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(c) A laboratory as defined in 326 IAC 2-7-1(21)(d)

(d) Closed loop heating and cooling systems.

(e) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(f) Conveyors as follows: enclosed systems for conveying plastics raw materials and plastic finished goods.

(g) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

(h) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour, constructed prior to 2005:

(1) Two (2) walk-behind gasoline fired vacuums, each with a maximum capacity of 5.5 hp each;

(2) One (1) gasoline fired snow blower, with a maximum capacity of 5.0 hp.

(i) Process vessel degreasing and cleaning to prepare for internal repairs.

(j) Unpaved roads and parking lots.

(k) One (1) parts washer, constructed in 2016, containing a bio-based cleaning solution without VOC.

(l) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.

(m) Vessels storing lubricating oils, hydraulic oils, machining oils and machining fluids.

(n) Application of oils, greases, lubricants, or other nonvolatile materials applied as temporary protective coatings.

(o) Machining where an aqueous cutting coolant continuously floods the machining interface.

(p) Water based adhesives that are less than or equal to 5% by volume of VOCs, excluding HAPs.

(q) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees C).

(r) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.

(s) One (1) hot-melt adhesive application with a maximum capacity of 16.43 gallons per day, and uncontrolled.

(t) Three (3) natural gas-fired space heaters, constructed in 2006, each with a maximum heat input capacity of 0.075 MMBtu per hour, uncontrolled, and exhausting outdoors.

Existing Approvals

The source was issued Part 70 Operating Permit Renewal No. T 075-33287-00024 on November 27, 2013. The source has since received the following approvals:

(a) Administrative Amendment No. T 075-35229-00024, issued on December 12, 2014,

(b) Significant Permit Modification No. T 075-37180-00024, issued on August 11, 2016.

(c) Significant Source Modification No. T 075-37711-00024, issued on February 17, 2017.

(d) Significant Permit Modification No. T 075-37902-00024, issued on March 07, 2017.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Jay County. The following attainment status designations are applicable to Jay County:

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard.[1]
$PM_{2.5}$	Unclassifiable or attainment effective April 5, 2005, for the annual $PM_{2.5}$ standard.
$PM_{2.5}$	Unclassifiable or attainment effective December 13, 2009, for the 24-hour $PM_{2.5}$ standard.
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.

[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.

(a) Ozone Standards

Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Jay County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$

Jay County has been classified as attainment for $PM_{2.5}$. Therefore, direct $PM_{2.5}$, SO_2, and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Other Criteria Pollutants

Jay County has been classified as attainment or unclassifiable in Indiana for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, and Part 70 Permit applicability.

Greenhouse Gas (GHG) Emissions

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled

that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Unrestricted Potential Emissions	
Pollutant	**Tons/year**
PM	2.0
PM_{10}	3.0
$PM_{2.5}$	2.8
SO_2	51.4
NO_x	28.4
VOC	1385.8
CO	19.9
Single HAP	7.3
Total HAP	16.9

Unrestricted Potential Emissions	
HAPs	**Tons/Year**
Styrene	7.3
Acetophenone	4.7
Xylenes	2.7
All other HAPs	2.2
Total	**16.9**

(a) The potential to emit (as defined in 326 IAC 2-7-1(30)) of VOC is greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.

(b) The potential to emit (as defined in 326 IAC 2-7-1(30)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(30)) of a combination of HAPs is less than twenty-five (25) tons per year.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, because the source met the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any new control equipment is considered federally enforceable only after issuance of this Part 70 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)								
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	Total HAPs	Worst Single HAP
Pre-expanders	-	-	-	-	-	245.0(1)	-	7.4	3.5 Styrene Monomer
Kurtz 813	-	-	-	-	-		-	7.4	3.5 Styrene Monomer
Kurtz 68	-	-	-	-	-		-		
Kurtz 1014	-	-	-	-	-		-		
Kurtz 13517	-	-	-	-	-		-		
Molding Presses (1400-1 to 1400-3, and MP-4)	-	-	-	-	-		-		
Pre-puff storage silos	-	-	-	-	-		-	1.6	0.3 Styrene Monomer
Finished goods storage	-	-	-	-	-		-		-
Boilers (B1 and B2)	1.4	1.7	1.5	51.3	14.5	0.5	8.3	0.2	0.2 Hexane
Natural gas combustion	0.3	1.0	1.0	0.1	13.8	0.8	11.6	0.3	
Scrap grinding	0.66	0.66	0.66	-	-	-	-	-	-
Gas engines	0.01	0.01	0.01	0.01	0.1	0.01	0.03	1.E-04	3.E-0.5 Formaldehyde
Flame cutting	0.1	0.1	0.1	0.0	0.0	0.0	0.0	8.E-04	9.0E-5 Manganese
Hot melt adhesive	-	-	-	-	-	0.9	-	-	-
Other insignificant activities	-	-	-	-	-	2.8(2)	-	-	-
Unpaved roads	6.0	1.6	0.2	-	-	-	-	-	-
Total PTE of Entire Source	**2.5**	**3.6**	**3.4**	**51.4**	**28.4**	**249.99**	**19.9**	**16.9**	**7.3 Styrene Monomer**
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	NA	NA

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)								
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	Total HAPs	Worst Single HAP
* Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a "regulated air pollutant".									
**$PM_{2.5}$ listed is direct $PM_{2.5}$.									
(1)Limited to render 326 IAC 2-2 not applicable.									
(2)No emissions calculations were performed .VOC emissions were allotted based on source confirmation of emissions for insignificant activities.									

(a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no PSD regulated pollutant is emitted at a rate of two hundred fifty (250) tons per year or more and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) This existing source is not a major source of HAPs, as defined in 40 CFR 63.2, because HAPs emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

In this renewal, IDEM has removed HAPs emission limits of less than ten (10) tons per twelve (12) consecutive month period for any single HAP and less than twenty-five (25) tons per twelve (12) consecutive month period for a combination of all HAPs. The source submitted HAPs profile from vendors manufacturing EPS and Arcel® beads. Revision of emissions calculations based on updated HAPs profile resulted in potential to emit total HAPs from the source being naturally less than ten (10) tons per year for any single HAP and twenty-five (25) tons per year for a combination of all HAPs.

Federal Rule Applicability

Compliance Assurance Monitoring (CAM):

(a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets the following criteria:

(1) has a potential to emit before controls equal to or greater than the major source threshold for the regulated pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant (or a surrogate thereof); and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

(b) Pursuant to 40 CFR 64.2(b)(1)(i), emission limitations or standards proposed after November 15, 1990 pursuant to a NSPS or NESHAP under Section 111 or 112 of the Clean Air Act are exempt from the requirements of CAM. Therefore, an evaluation was not conducted for any emission limitations or standards proposed after November 15, 1990 pursuant to a NSPS or NESHAP under Section 111 or 112 of the Clean Air Act.

(c) Pursuant to 40 CFR 64.2(b)(1)(iii), Acid Rain requirements pursuant to Sections 404, 405, 406, 407(a), 407(b), or 410 of the Clean Air Act are exempt emission limitations or standards. Therefore, CAM was not evaluated for emission limitations or standards for SO_2 and NO_X under the Acid Rain Program.

(d) Pursuant to 40 CFR 64.3(d), if a continuous emission monitoring system (CEMS) is required pursuant to other federal or state authority, the owner or operator shall use the CEMS to satisfy the requirements of CAM according to the criteria contained in 40 CFR 64.3(d).

Emission Unit/Pollutant	Control Device	Applicable Emission Limitation	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Scrap Grinding/ PM*	Filter bag vacuum system	326 IAC 6-3-2	<100	-	N [1]	-
Scrap Grinding/ PM		No	-	-	N [2]	
Scrap Grinding /PM10		No	-	-	N [3]	
Scrap Grinding/ PM2.5		No	-	-	N [3]	

Uncontrolled PTE (tpy) and controlled PTE (tpy) are evaluated against the Major Source Threshold for each pollutant. Major Source Threshold for criteria pollutants (PM10, PM2.5, SO2, NOX, VOC and CO) is 100 tpy, for a single HAP ten (10) tpy, and for total HAPs twenty-five (25) tpy.
Under the Part 70 Permit program (40 CFR 70), PM is not a regulated pollutant.

PM* For limitations under 326 IAC 6-3-2, 326 IAC 6.5, and 326 IAC 6.8, IDEM OAQ uses PM as a surrogate for the regulated air pollutant PM10. Therefore, uncontrolled PTE and controlled PTE reflect the emissions of the regulated air pollutant PM10.

N [1] CAM does not apply for pollutant because the uncontrolled PTE of pollutant is less than the major source threshold.

N [2] Under 326 IAC 2-2, PM is not a surrogate for a regulated air pollutant. Therefore, CAM does not apply to these emission units for the 326 IAC 2-2 PM limitation.

N [3] There is no applicable emission limitation or standard. Therefore, based on this evaluation, the requirements of 40 CFR Part 64, CAM, are not applicable.

Controls: BH = Baghouse, C = Cyclone, DC = Dust Collection System, RTO = Regenerative or Recuperative Thermal Oxidizer, WS = Wet Scrubber, ESP = Electrostatic Preciptator

Emission units without air pollution controls are not subject to CAM. Therefore, they are not listed.

New Source Performance Standards (NSPS)

(e) Boilers, B1 and B2
The requirements of New Source Performance Standard for Small Industrial - Commercial - Institutional Steam Generating Units, 40 CFR 60, Subpart Dc, are not applicable to the boilers, B1 and B2, because they were each constructed prior to June 9, 1989. Boilers, B1 and B2, were constructed in 1979 and 1981, respectively.

(f) Boiler, B3
The Boiler, B3, is subject to the requirements of New Source Performance Standard for Small Industrial - Commercial - Institutional Steam Generating Units, 40 CFR 60, Subpart Dc, because it is a steam generating unit that was constructed after June 9, 1989, and has maximum heat input less than 100 MMBtu per hour. Boiler, B3, was constructed in 2011.

Boiler B3, is subject to the following portions of Subpart Dc

(1) 40 CFR 60.40c
(2) 40 CFR 60.41c
(3) 40 CFR 60.48c(a)(1)
(4) 40 CFR 60.48c(g)(2)
(5) 40 CFR 60.48c(i)
(6) 40 CFR 60.48c(j)

This is an existing applicable requirement and no change is being made in this renewal.

(g) The requirements of New Source Performance Standard for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart IIII, are not applicable to the gasoline fired internal combustion engines, because they are not stationary CI ICE. In addition, the gasoline fired ICE were constructed prior to 2005.

(h) The requirements of New Source Performance Standard for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ, are not applicable to the gasoline fired internal combustion engines, because they were each constructed prior to June 12, 2006.

(i) There are no other New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.

National Emission Standards for Hazardous Air Pollutants (NESHAPs)

(j) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Flexible Polyurethane Foam Production, 40 CFR 63, Subpart IIII, are not applicable to the source, because it is not a major source of HAPs, and it does not use polyurethane.

(k) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63, Subpart ZZZZ, are not applicable to the gasoline fired internal combustion engines, because each of the emission units is a portable internal combustion engine.

(l) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD, are not applicable to the source, because it is not a major source of HAPs.

(m) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Flexible Polyurethane Foam Fabrication Operation, 40 CFR 63, Subpart MMMMM are not applicable to the source, because it is not a major source of HAPs, and it does not use polyurethane.

(n) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJJ are not applicable to the boilers, B1 and B2, because the # 2 fuel oil will be used only during period of gas curtailment, gas supply interruption, or periodic testing.

(o) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Flexible Polyurethane Foam Production and Fabrication Area Sources, 40 CFR 63, Subpart OOOOOO (6O) are not applicable to the source because it does not use polyurethane.

(p) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in this permit renewal.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)
The source has potential to emit VOC greater than two hundred fifty (250) tons per year. However, the source accepted to continue to limit the potential VOC emissions to less than 250 tons per year, such that 326 IAC 2-2 do not apply.

In order to render 326 IAC 2-2 (PSD) not applicable, the total VOC emissions from the following operations:

3 Hirsch 6000 pre-expanders
5 Kurtz 813 molding presses
4 Kurtz 68 molding presses
2 Kurtz 1014 molding presses
6 Kurtz 13517 molding presses
4 Molding presses

34 Pre-puff storage silos
1 Finished goods storage
1 Tunnel oven

shall not exceed 245 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits combined with VOC emissions from all other emissions units at the source shall limit the VOC emissions to less than 250 tons per twelve (12) consecutive month period and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

The VOC emissions shall be calculated using the following equation:

T_{ML} = VOC emissions from EPS based beads + VOC emissions from Arcel®-based beads

= $[\sum (U_E * V_E * L_E) + \sum (U_A * V_A * L_A)] / (2000 \text{ pounds}/ 1 \text{ ton})$

Where:

T_{ML} = Total VOC emissions from the following operations (tons per 12-consective month period)

3 Hirsch 6000 pre-expanders
5 Kurtz 813 molding presses
4 Kurtz 68 molding presses
2 Kurtz 1014 molding presses
6 Kurtz 13517 molding presses
4 Molding presses
34 Pre-puff storage silos
1 Finished goods storage
1 Tunnel oven

U_E = Pounds of EPS-based beads from lot x used during the 12 consective month period

V_E = VOC content of EPS-based beads from lot x, in percent by weight expressed as a decimal

L_E = Overall emission loss rate for EPS-based bead usage (98.7% of raw material VOC content)

U_A = Pounds of Arcel® based beads from lot x used during the 12 consective month period

V_A = VOC content of Arcel® based beads from lot x, in percent by weight expressed as a decimal

L_A = Overall emission loss rate for Arcel® based bead usage (98.7% of raw material VOC content)

Operations	VOC Emissions Loss Rate (%) of EPS-based bead	VOC Emissions Loss Rate (%) of Arcel® based bead
3 Hirsch 6000 pre-expanders	25	41
5 Kurtz 813 molding presses	13	5
4 Kurtz 68 molding presses		
2 Kurtz 1014 molding presses		
6 Kurtz 13517 molding presses		
4 molding presses		
34 Pre-puff storage silos	19	23
1 Finished goods storage	30.2	30
1 Tunnel oven	11.5	-
Total	98.7	98.7

This is an existing requirement. In this renewal, IDEM has clarified the manufacturing lines that the limit applies to, and that the time period of compliance is a 12 consecutive month period.

326 IAC 2-6 (Emission Reporting)
This source, not located in Lake, Porter, or LaPorte County, is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit pursuant to 326 IAC 2-7 (Part 70). The potential to emit of VOC and PM10 is less than 250 tons per year; and the potential to emit of CO, NOx, and SO2 is less than 2,500 tons per year. Therefore, pursuant to 326 IAC 2-6-3(a)(2), triennial reporting is required. An emission statement shall be submitted in accordance with the compliance schedule in 326 IAC 2-6-3 and every three (3) years thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 2-7-6(5) (Annual Compliance Certification)
The U.S. EPA Federal Register 79 FR 54978 notice does not exempt Title V Permittees from the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D), but the submittal of the Title V annual compliance certification to IDEM satisfies the requirement to submit the Title V annual compliance certifications to EPA. IDEM does not intend to revise any permits since the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D) still apply, but Permittees can note on their Title V annual compliance certification that submission to IDEM has satisfied reporting to EPA per Federal Register 79 FR 54978. This only applies to Title V Permittees and Title V compliance certifications.

326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in the permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
This source is not subject to the requirements of 326 IAC 6-5, because it does not have potential fugitive particulate emissions greater than 25 tons per year.

326 IAC 6.5 PM Limitations Except Lake County
This source is not subject to 326 IAC 6.5 because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne.

326 IAC 6.8 PM Limitations for Lake County
This source is not subject to 326 IAC 6.5 because it is not located in Lake County.

State Rule Applicability – Individual Facilities

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

(a) Pursuant to 326 IAC 6-2-3(e), the PM emissions from boiler, B1, shall not exceed 0.6 pound per MMBtu because it is an indirect heating unit that was constructed after June 8, 1972. Boilers, B1 was constructed in 1979.

(b) Pursuant to 326 IAC 6-2-3(e), the PM emissions from boilers, B2, shall not exceed 0.6 pound per MMBtu because it is an indirect heating unit that was constructed after June 8, 1972. Boilers, B2, was constructed in 1981.

(c) Pursuant to 326 IAC 6-2-4, the PM emissions from each of the emission units listed in the table, shall not exceed pound per MMBtu limit as follow:

Indirect Heating Units Which Began Operation After September 21, 1983						
Facility	Construction Date	Operating Capacity (MMBtu/hr)	Q (MMBtu/hr)	Calculated Pt (lb/MMBtu)	Particulate Limitation, (Pt) (lb/MMBtu)	PM PTE based on AP-42 (lb/MMBtu)
Space heaters	2002	0.5	23.6	0.48	0.48	0.002
Space heaters	2006	1.35	24.95	0.47	0.47	0.002
Boiler, B3	2011	29.3	54.25	0.38	0.38	0.002
Space heater	2015	0.2	54.45	0.38	0.38	0.002
Space heaters	2016	0.6	55.05	0.38	0.38	
Space heater	2017	0.15	55.20	0.38	0.38	0.002
Where: Q =	Includes the capacity (MMBtu/hr) of the new unit(s) and the capacities for those unit(s) which were in operation at the source at the time the new unit(s) was constructed.					

The lb PM per MMBtu limit was established using the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu).

Q = Total source maximum operating capacity rating in MMBtu/hr heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation.

These are existing limits for the boilers, B1, B2, and B3 and no change is being made in this renewal. These are new emission limits for the space heaters at the source and have been added in this renewal.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

(a) Pursuant to 326 IAC 6-3-1(b)(14), the requirements of 326 IAC 6-3-2 do not apply to the flame cutting torch, because it has potential emissions less than 0.551 pound per hour.

(b) Pursuant to 326 IAC 6-3-1(b)(14), the requirements of 326 IAC 6-3-2 do not apply to the polystyrene scrap grinding operation, because it has potential emissions less than 0.551 pound per hour.

In this renewal, IDEM has removed the limit of "shall not exceed 0.551 pounds per hour" because the operation is exempt from 326 IAC 6-3-2.

326 IAC 7 (Sulfur Dioxide Rules)
The boilers, B1 and B2, are subject to the requirements of 326 IAC 7, because each boiler has the potential to emit twenty-five (25) tons of sulfur dioxide per year.

(a) Pursuant to 326 IAC 7-1.1-2(a)(3), the sulfur dioxide emissions from boiler, B1, shall not exceed five-tenths (0.5) pound per MMBtu heat input when burning #2 fuel oil.

(b) Pursuant to 326 IAC 7-1.1-2(a)(3), the sulfur dioxide emissions from boiler, B2, shall not exceed five-tenths (0.5) pound per MMBtu heat input when burning #2 fuel oil.

#2 fuel oil is considered distillate oil.

(c) Pursuant to 326 IAC 7-2-1(d)(2), compliance shall be determined using a calendar month average sulfur dioxide emission rate in pounds per MMBtu.

In this renewal, IDEM has updated the rule language for 326 IAC 7-2-1 to provide more clarity.

326 IAC 8-1-6 (New Facilities, General Reduction Requirements)
(a) Three (3) Hirsch 6000 pre-expanders
The following pre-expanders are each subject to the requirements of 326 IAC 8-1-6, because they were each constructed after January 1, 1980, and they each have potential to emit VOC greater than twenty-five (25) tons per year while processing EPS and Arcel® based beads. However, the source has accepted to limit VOC emissions from each of the pre-expanders to less than 25 tons per year.

Emission Unit ID	Year of Construction
PE2	2001
PE4	2011
PE5	2017

In order to render the requirements of 326 IAC 8-1-6 not applicable, the Permittee shall comply with the following:

The total VOC emissions from each of the following three (3) Hirsch 6000 pre-expanders shall not exceed 24.99 tons per twelve (12) consecutive month period, with compliance determined at the end of each month:

PE2
PE4
PE5

Compliance with this limit shall limit the potential to emit VOC from each of the three (3) Hirsch 6000 pre-expanders to less than 25 tons per twelve (12) consecutive month period and shall render the requirements of 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities) not applicable.

In this renewal, IDEM has revised the limit from "shall be less than 25 tons" to "shall not exceed 24.99 tons" to provide more clarity.

The VOC emissions shall be calculated using the following equation:

T_{PL} = VOC emissions from EPS based beads + VOC emissions from Arcel® based beads

= $\sum (U_E * V_E * L_{EE}) + \sum (U_A * V_A * L_{AE}) / (2{,}000 \text{ pounds/ton})$

Where:

T_{PL} = Total VOC emissions from each pre-expander (tons per 12-consective month period)

PE2
PE4
PE5

U_E = Pounds of EPS-based beads from lot x used during the 12 consective month period

V_E = VOC content of EPS-based beads from lot x, in percent by weight expressed as a decimal

L_{EE} = Pre-expansion phase emission loss rate for EPS-based bead usage (25% of VOC content of raw material)

U_A = Pounds of Arcel® based beads from lot x used during the 12 consective month period

V_A = VOC content of Arcel® based beads from lot x, in percent by weight expressed as a decimal

L_{AE} = Pre-expansion phase emission loss rate for Arcel® based bead usage (41% of VOC content of raw material)

This is an existing equation. In this renewal, IDEM has clarified the pre-expanders that the limit applies to, and that the time period of compliance is a 12 consecutive month period.

(b) Five (5) Kurtz 813 molding presses

The following Kurtz 813 molding presses, constructed after January 1, 1980, are not subject to the requirements of 326 IAC 8-1-6, because each molding press has potential to emit VOC less than twenty-five (25) tons per year while processing EPS and Arcel® based beads:

Emission Unit ID	Year of Construction
813-1	2011
813-2	
813-3	
813-4	
813-5	

(c) Four (4) Kurtz 68 molding presses

The following Kurtz 68 molding presses, constructed after January 1, 1980, are not subject to the requirements of 326 IAC 8-1-6, because each molding press has potential to emit VOC less than twenty-five (25) tons per year while processing EPS and Arcel® based beads:

Emission Unit ID	Year of Construction
68-1	2011
68-2	
68-3	
68-4	2012

(d) Two (2) Kurtz 1014 molding presses

The following Kurtz 1014 molding presses, constructed after January 1, 1980, are not subject to the requirements of 326 IAC 8-1-6, because each molding press has potential to emit VOC less than twenty-five (25) tons per year while processing EPS and Arcel® based beads:

Emission Unit ID	Year of Construction
1014-1	2011
1014-2	

(e) Six (6) Kurtz 13517 molding presses

The following Kurtz 13517 molding presses, constructed after January 1, 1980, are not subject to the requirements of 326 IAC 8-1-6, because each molding press has potential to emit VOC less than twenty-five (25) tons per year while processing EPS and Arcel® based beads:

Emission Unit ID	Year of Construction
13517	2011
13517-2	2012
13517-3	
13517-4	
13517-5	
13517-6	

(f) Four (4) Molding presses

The following molding presses, constructed after January 1, 1980, are not subject to the requirements of 326 IAC 8-1-6, because each molding press has potential to emit VOC less than twenty-five (25) tons per year while processing EPS and Arcel® based beads:

Emission Unit ID	Year of Construction
1400-1	2017
1400-2	
1400-3	
MP-4	

(g) Thirty four (34) Pre-puff storage silos

The following pre-puff storage silos, constructed after January 1, 1980, are not subject to the requirements of 326 IAC 8-1-6, because each storage silo has potential to emit VOC less than twenty-five (25) tons per year while processing EPS and Arcel® based beads:

Emission Unit ID	Number of Units	Year of Construction
PPS31 – PPS54	24	2016
PPS55 – PPS64	10	2016

(h) Finished goods storage

The finished goods area has potential to emit VOC greater than twenty-five (25) tons per year while processing EPS and Arcel® based beads. However, it was constructed prior to January 1, 1980. Therefore the requirements of 326 IAC 8-1-6 are not applicable.

(i) Tunnel Oven

The tunnel oven, constructed after January 1, 1980, is not subject to the requirements of 326 IAC 8-1-6, because it has potential to emit VOC less than twenty-five (25) tons per year while processing dry finished goods products made of EPS based beads.

The tunnel oven is not used to process dry finished goods products made of Arcel® based beads.

(j) Hot melt adhesive
The hot melt adhesive application has potential to emit VOC less than 25 tons per year. Therefore the requirements of 326 IAC 8-1-6 are not applicable.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to assure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

(a) The Compliance Monitoring Requirements applicable to this source are as follows

Emissions Unit/Control	Parameter	Frequency
Boilers (B1 and B2)	Visible Emissions	Daily (when burning No.2 fuel oil)

(b) The Compliance Determination Requirements applicable to this source are as follows:

(1) IDEM, OAQ has determined that testing of emission units at this source is not required at this time because the monitoring and reporting requirements are sufficient to assure compliance with 326 IAC 2-7 on a continuous basis. Although IDEM has determined that testing is not required at this time, IDEM retains the authority to require testing at a later time if necessary to demonstrate compliance with any applicable requirement.

Conclusion and Recommendation

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved. Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on February 19, 2018. Additional information was received on October 10, 2018.

The operation of this stationary foam packaging manufacturing plant shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. T075-39639-00024.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Rithika Reddy at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-9694 or toll free at 1-800-451-6027 and ask for Rithika Reddy or (317) 234-9694.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Air Permits page on the Internet at: http://www.in.gov/idem/airquality/2356.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

Appendix A: Emissions Calculations
Emissions Summary

Company Name: Sonoco Protective Solutions, Inc.
Address: 1619 North Meridian Street, Portland, Indiana 47371
Permit Number: T075-39639-00024
Reviewer: Rithika Reddy

Unlimited Potential to Emit (tons/year)

Emission Unit/ Process	PM	PM10	PM2.5	SO2	NOx	VOC	CO	Total HAPs	Single Highest HAP	
Pre-expanders	-	-	-	-	-	538.7	-	7.4	3.5	Styrene Monomer
Kurtz 813	-	-	-	-	-		-			
Kurtz 68	-	-	-	-	-		-			
Kurtz 1014	-	-	-	-	-	128.1	-	7.4	3.5	Styrene Monomer
Kurtz 13517	-	-	-	-	-		-			
Molding Presses (1400-1 to 1400-3, and MP-4)	-	-	-	-	-		-			
Pre-puff storage silos	-	-	-	-	-	302.2	-	1.6	0.3	Styrene Monomer
Finished goods storage	-	-	-	-	-	411.0	-	-	-	-
Boilers (B1 and B2)	1.4	1.7	1.5	51.3	14.5	0.5	8.3	0.2	0.2	Hexane
Natural gas combustion	0.3	1.0	1.0	0.1	13.8	0.8	11.6	0.3	0.2	Hexane
Scrap grinding	0.66	0.66	0.66	-	-	-	-	-	-	-
Gas engines	0.01	0.01	0.01	0.01	0.1	0.01	0.03	1.E-04	3.E-05	Formaldehyde
Flame cutting	0.1	0.1	0.1	-	-	-	-	6.E-04	7.E-05	Manganese
Hot melt adhesive	-	-	-	-	-	0.9	-	-	-	-
Other insignificant activities	-	-	-	-	-	3.5	-	-	-	-
Unpaved roads	6.0	1.6	0.2	-	-	-	-	-	-	-
Total	**2.5**	**3.6**	**3.4**	**51.4**	**28.4**	**1385.8**	**19.9**	**16.9**	**7.3**	**Styrene Monomer**

Limited Potential to Emit (tons/year)

Emission Unit/ Process	PM	PM10	PM2.5	SO2	NOx	VOC	CO	Total HAPs	Single Highest HAP	
Pre-expanders	-	-	-	-	-		-	7.4	3.5	Styrene Monomer
Kurtz 813	-	-	-	-	-		-			
Kurtz 68	-	-	-	-	-		-			
Kurtz 1014	-	-	-	-	-	245.0	-	7.4	3.5	Styrene Monomer
Kurtz 13517	-	-	-	-	-		-			
Molding Presses (1400-1 to 1400-3, and MP-4)	-	-	-	-	-		-			
Pre-puff storage silos	-	-	-	-	-		-	1.6	0.3	Styrene Monomer
Finished goods storage	-	-	-	-	-		-	-	-	-
Boilers (B1 and B2)	1.4	1.7	1.5	51.3	14.5	0.5	8.3	0.2	0.2	Hexane
Natural gas combustion	0.3	1.0	1.0	0.1	13.8	0.8	11.6	0.3	0.2	Hexane
Scrap grinding	0.66	0.66	0.66	-	-	-	-	-	-	-
Gas engines	0.01	0.01	0.01	0.01	0.1	0.01	0.03	1.E-04	3.E-05	Formaldehyde
Flame cutting	0.1	0.1	0.1	-	-	-	-	6.E-04	7.E-05	Manganese
Hot melt adhesive	-	-	-	-	-	0.9	-	-	-	-
Other insignificant activities	-	-	-	-	-	2.8				
Unpaved roads	6.0	1.6	0.2	-	-	-	-	-	-	-
Total	**2.5**	**3.6**	**3.4**	**51.4**	**28.4**	**249.99**	**19.9**	**16.9**	**7.3**	**Styrene Monomer**

Limited to render 326 IAC 2-2 not applicable

No emissions calculations were performed .VOC emissions were allotted based on source confirmation of emissions for insignificant activities.

Appendix A: Emissions Calculations
Emissions from Pre-Expanders

Company Name: Sonoco Protective Solutions, Inc.
Address: 1619 North Meridian Street, Portland, Indiana 47371
Permit Number: T075-39639-00024
Reviewer: Rithika Reddy

Hirsch 6000 pre-expanders

VOC

Emission Unit ID	Maximum Capacity (lbs/hr)	Maximum Raw Bead VOC Content	*VOC Loss Rate (%)	Potential to Emit VOC (lbs/hr)	Potential to Emit VOC (tons/yr)
EPS					
PE2	1,250	6.0%	25.0%	18.75	82.13
PE4	1,250	6.0%	25.0%	18.75	82.13
PE5	1,250	6.0%	25.0%	18.75	82.13
Total					**246.38**
Arcel					
PE2	800	12.5%	41%	41.00	179.58
PE4	800	12.5%	41%	41.00	179.58
PE5	800	12.5%	41%	41.00	179.58
Total					**538.74**

HAPs

		EPS Materials		**Arcel Materials**		**Potential to Emit (one unit)**	
HAP	CAS	Conc.	Loss rate	Conc.	Loss rate		
Compounds:	Number	ppmw	by wt.	ppmw	by wt.	lbs/hr	tons/yr
Acetophenone	98-86-2	615	16%	640	70%	0.161	0.706
Benzene	71-43-2	10	80%	10	70%	0.005	0.020
Cumene	98-82-8	71	55%	0	70%	0.022	0.096
Ethyl Benzene	100-41-4	82	34%	59	70%	0.016	0.069
Styrene monomer	100-42-5	900	53%	37	70%	0.268	1.175
Xylenes	1330-20-7	295	55%	0	70%	0.091	0.400
					TOTALS HAPs:	**0.563**	2.466

Capacity (lbs/per unit)	**EPS**	**Arcel**
Annual:	10,950,000	7,008,000
Hourly :	1,250	800

Methodology

PTE for each unit:
PTE VOC (lb/hr) =*Maximum Capacity (lbs/hr)* Maximum Raw Bead VOC Content (%)* VOC Loss Rate (%)
PTE VOC (tons/year) = PTE VOC (lb/hr)* 8760 hrs/ 1 year * 1 ton /2000 lbs
PTE HAP (lb/hr) = Concentration (ppm) * Loss rate (%)*Maximum Capacity (lbs/hr)* Loss attributed to Pre-expander (%)
PTE HAP (tons/year) = PTE HAP (lb/hr)* 8760 hrs/ 1 year * 1 ton /2000 lbs
Loss attributed to Pre-expander (%) = 45% (HAPs)
The HAPs emissions were recalculated based on the supplier HAPs profile provided by the source in Renewal No: 075-39639-00024.
Worst case emissions for VOC and HAPs were considered.

*Note: Oven VOC loss rate provided by source based on the average loss after 1 day in Goods Storage Area, per BASF study in 1999.
Other units for maximum capacity and VOC loss rates are carried over from SPM075-37902-00024, issued on March 07, 2017.

Process	EPS Loss Rate	Arcel Loss Rate	
Pre-expansion	25%	41.0%	
Pre-puff Storage	19%	23%	
Molding	13%	5.0%	
Oven*	11.5%	-	
Finished Goods Storage	30.2%	30%	
Total	98.7%	98.7%	(This means that 1.3% is not emitted)

Process	HAPs Loss Rate
Pre-expansion	45%
Pre-puff Storage	10%
Molding	45%
Total	100.0%

Appendix A: Emissions Calculations
VOC Emissions from Molding Presses

Company Name: Sonoco Protective Solutions, Inc.
Address: 1619 North Meridian Street, Portland, Indiana 47371
Permit Number: T075-39639-00024
Reviewer: Rithika Reddy

EPS

	Equipment	Kurtz 813	Kurtz 68	Kurtz 1014	Kurtz 13157	Molding Presses (1400-1 to 1400-3, and MP-4)
	No. of units	5	4	2	6	4
	Maximum Raw Bead VOC Content	6.0%				
	*VOC Loss Rate (%)	13.0%				
	Maximum Capacity (lbs/hr)	200	175	250	300	300
	Potential to Emit VOC (lbs/hr)	1.6	1.4	2.0	2.3	2.3
One unit	Potential to Emit VOC (tons/yr)	6.8	6.0	8.5	10.2	10.2
All units	Potential to Emit VOC (tons/yr)	34.2	23.9	17.1	61.5	41.0
Based on pre-expander	Potential to Emit VOC (tons/yr)	128.1				

Arcel

	Equipment	Kurtz 813	Kurtz 68	Kurtz 1014	Kurtz 13157	Molding Presses (1400-1 to 1400-3, and MP-4)
	No. of units	5	4	2	6	4
	Maximum Raw Bead VOC Content	12.5%				
	*VOC Loss Rate (%)	5.0%				
	Maximum Capacity (lbs/hr)	160	140	200	240	240
	Potential to Emit VOC (lbs/hr)	1.00	0.88	1.25	1.50	1.50
One unit	Potential to Emit VOC (tons/yr)	4.4	3.8	5.5	6.6	6.6
All units	Potential to Emit VOC (tons/yr)	21.9	15.3	11.0	39.4	26.3
Based on pre-expander	Potential to Emit VOC (tons/yr)	65.7				

Methodology

PTE for each unit:

PTE VOC (lb/hr) = *Maximum Capacity (lbs/hr) * Maximum Raw Bead VOC Content (%) * VOC Loss Rate (%)

PTE VOC (tons/year) = PTE VOC (lb/hr) * 8760 hrs/1 year * 1 ton /2000 lbs

Worst case emissions for VOC was considered.

*Note: Oven VOC loss rate provided by source based on the average loss after 1 day in Goods Storage Area, per BASF study in 1999.
Other units for maximum capacity and VOC loss rates are carried over from SPM075-37902-00024, issued on March 07, 2017.

Process	EPS Loss Rate	Arcel Loss Rate
Pre-expansion	25%	41.0%
Pre-puff Storage	19%	23%
Molding	13%	5.0%
Oven*	11.5%	-
Finished Goods Storage	30.2%	30%
Total	98.7%	98.7%

(This means that 1.3% is not emitted)

Appendix A: Emissions Calculations
HAPs Emissions from Molding Presses

Company Name: Sonoco Protective Solutions, Inc.
Address: 1619 North Meridian Street, Portland, Indiana 47371
Permit Number: T075-39639-00024
Reviewer: Rithika Reddy

		EPS Materials		Arcel Materials		Potential to Emit Kurtz 813		Potential to Emit Kurtz 68		Potential to Emit Kurtz1014		Potential to Emit Kurtz 13157		Potential to Emit Molding Presses (1400-1 to 1400-3, and MP-4)	
HAP	CAS	Conc.	Loss rate	Conc.	Loss rate										
Compounds:	Number	ppmw	by wt.	ppmw	by wt.	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
Acetophenone	98-86-2	615	16%	640	70%	0.032	0.141	0.028	0.124	0.040	0.177	0.048	0.212	0.048	0.212
Benzene	71-43-2	10	80%	10	70%	0.001	0.003	0.001	0.003	0.001	0.004	0.001	0.005	0.001	0.005
Cumene	98-82-8	71	55%	0	70%	0.004	0.015	0.003	0.013	0.004	0.019	0.005	0.023	0.005	0.023
Ethyl Benzene	100-41-4	82	34%	59	70%	0.003	0.013	0.003	0.011	0.004	0.016	0.004	0.020	0.004	0.020
Styrene monomer	100-42-5	900	53%	37	70%	0.043	0.188	0.038	0.165	0.054	0.235	0.064	0.282	0.064	0.282
Xylenes	1330-20-7	295	55%	0	70%	0.015	0.064	0.013	0.056	0.018	0.080	0.022	0.096	0.022	0.096
			Total HAPs for single unit:			**0.097**	0.425	**0.085**	0.372	**0.121**	0.531	**0.145**	0.637	**0.145**	0.637
			Total HAPs for all units:			0.5	2.1	0.3	1.5	0.2	1.1	0.9	3.8	0.6	2.5
		Total HAPs based on pre-expander (tons/year)				7.4									

Emission Unit	Capacity (lbs/per unit)	EPS	Arcel
Kurtz 813	Annual:	1,752,000	1,401,600
	Hourly :	200	160
Kurtz 68	Annual:	1,533,000	1,226,400
	Hourly :	175	140
Kurtz1014	Annual:	2,190,000	1,752,000
	Hourly :	250	200
Kurtz 13157	Annual:	2,628,000	2,102,400
	Hourly :	300	240
Molding Presses (1400-1 to 1400-3, and MP-4)	Annual:	2,628,000	2,102,400
	Hourly :	300	240
Pre-expanders	Annual:	10,950,000	7,008,000
	Hourly :	1,250	800

Methodology
PTE for each unit:
PTE HAP (lb/hr) = Concentration (ppm) * Loss rate (%)*Maximum Capacity (lbs/hr)* Loss attributed to Pre-expander (%)
PTE HAP (tons/year) = PTE HAP (lb/hr)* 8760 hrs/ 1 year * 1 ton /2000 lbs
Loss attributed to Molding Press (%) = 45%
The HAPs emissions were recalculated based on the supplier HAPs profile provided by the source in Renewal No: 075-39639-00024.
Worst case emissions for HAPs was considered.

Process	HAPs Loss Rate
Pre-expansion	45%
Pre-puff Storage	10%
Molding	45%
Total	100.0%

Appendix A: Emissions Calculations
Emissions from Pre-Puff Storage Silos

Company Name: Sonoco Protective Solutions, Inc.
Address: 1619 North Meridian Street, Portland, Indiana 47371
Permit Number: T075-39639-00024
Reviewer: Rithika Reddy

Emission Unit ID	No. of units	Maximum Capacity of each unit (lbs/hr)	Maximum Capacity (lbs/hr)	Maximum Raw Bead VOC Content	*VOC Loss Rate (%)	Potential to Emit VOC (lbs/hr)	Potential to Emit VOC (tons/yr)
EPS							
PPS31 – PPS54	24	1,725	41,400	6.0%	19.0%	471.96	2067.18
PPS55 – PPS64	10	2,060	20,600	6.0%	19.0%	234.84	1028.60
						Total	**3095.78**
						Based on Pre-expander	**187.25**
Arcel							
PPS31 – PPS54	24	1,725	41,400	12.5%	23%	1190.25	5213.295
PPS55 – PPS64	10	2,060	20,600	12.5%	23%	592.25	2594.055
						Total	**7807.35**
						Based on Pre-expander	**302.22**

		EPS Materials		**Arcel Materials**		**Potential to Emit HAPs**		**Potential to Emit HAPs based on pre-expanders**	
HAP	CAS	Conc.	Loss rate	Conc.	Loss rate				
Compounds:	Number	ppmw	by wt.	ppmw	by wt.	lbs/hr	tons/yr	lbs/hr	tons/yr
Acetophenone	98-86-2	615	16%	640	70%	2.778	12.166	0.04	0.16
Benzene	71-43-2	10	80%	10	70%	0.050	0.217	0.00	0.00
Cumene	98-82-8	71	55%	0	70%	0.242	1.060	0.00	0.02
Ethyl Benzene	100-41-4	82	34%	59	70%	0.256	1.122	0.00	0.02
Styrene monomer	100-42-5	900	53%	37	70%	2.957	12.953	0.06	0.26
Xylenes	1330-20-7	295	55%	0	70%	1.006	4.406	0.02	0.09
					Total HAPs for single unit:	**7.289**	31.925	0.13	0.55
					Total HAPs for all units:	36.4	159.6	0.38	1.64

Capacity (lbs/per unit)	**EPS**	**Arcel**
Annual:	10,950,000	7,008,000
Hourly :	1,250	800

Methodology

PTE for each unit:
PTE VOC (lb/hr) = *Maximum Capacity (lbs/hr)* Maximum Raw Bead VOC Content (%)* VOC Loss Rate (%)
PTE VOC (tons/year) = PTE VOC (lb/hr)* 8760 hrs/ 1 year * 1 ton /2000 lbs
PTE HAP (lb/hr) = Concentration (ppm) * Loss rate (%)*Maximum Capacity (lbs/hr)* Loss attributed to Pre-expander (%)
PTE HAP (tons/year) = PTE HAP (lb/hr)* 8760 hrs/ 1 year * 1 ton /2000 lbs
Loss attributed to Pre-puff (%) = 10% (HAPs)
The HAPs emissions were recalculated based on the supplier HAPs profile provided by the source in Renewal No: 075-39639-00024.
Worst case emissions for VOC and HAPs were considered.

*Note: Oven VOC loss rate provided by source based on the average loss after 1 day in Goods Storage Area, per BASF study in 1999.
Other units for maximum capacity and VOC loss rates are carried over from SPM:075-37902-00024, issued on March 07, 2017.

Process	EPS Loss Rate	Arcel Loss Rate
Pre-expansion	25%	41.0%
Pre-puff Storage	19%	23%
Molding	13%	5.0%
Oven*	11.5%	-
Finished Goods Storage	30.2%	30%
Total	98.7%	98.7%

(This means that 1.3% is not emitted)

Process	HAPs Loss Rate
Pre-expansion	45%
Pre-puff Storage	10%
Molding	45%
Total	100.0%

Appendix A: Emissions Calculations
VOC Emissions from Finished Goods Storage

Company Name: Sonoco Protective Solutions, Inc.
Address: 1619 North Meridian Street, Portland, Indiana 47371
Permit Number: T075-39639-00024
Reviewer: Rithika Reddy

Tunnel Oven
VOC

Emission Unit ID	Maximum Capacity (lbs/hr)	Maximum Raw Bead VOC Content	*VOC Loss Rate (%)	Potential to Emit VOC (lbs/hr)	Potential to Emit VOC (tons/yr)
EPS					
Tunnel oven	522	6.0%	11.5%	3.60	15.76
Finished goods storage in oven	522	6.0%	30.2%	9.46	41.43
Finished goods storage w/o passing in oven	3,229	6.0%	41.7%	80.78	353.80
Total					**410.99**
Arcel					
Finished goods storage	2,400	12.5%	30%	89.10	390.258
Total					**390.258**

Methodology
PTE for each unit:
PTE VOC (lb/hr) = *Maximum Capacity (lbs/hr)* Maximum Raw Bead VOC Content (%)* VOC Loss Rate (%)
PTE VOC (tons/year) = PTE VOC (lb/hr)* 8760 hrs/ 1 year * 1 ton /2000 lbs

*Note: Oven VOC loss rate provided by source based on the average loss after 1 day in Goods Storage Area, per BASF study in 1999. Other units for maximum capacity and VOC loss rates are carried over from SPM075-37902-00024, issued on March 07, 2017.

Process	EPS Loss Rate	Arcel Loss Rate	
Pre-expansion	25%	41.0%	
Pre-puff Storage	19%	23%	
Molding	13%	5.0%	
Oven*	11.5%	-	
Finished Goods Storage	30.2%	30%	
Total	98.7%	98.7%	(This means that 1.3% is not emitted)

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)
#2 Fuel Oil

Company Name: **Sonoco Protective Solutions, Inc.**
Address: **1619 North Meridian Street, Portland, Indiana 47371**
Permit Number: **T075-39639-00024**
Reviewer: **Rithika Reddy**

EU ID	Capacity (MMBtu/hr)
B1	10.5
B2	12.6
Total	**23.1**

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
23.1	1445.4	0.5

	Pollutant						
	PM*	PM10**	direct PM2.5***	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	2.0	2.38	2.13	71 *(142.0S)*	20.0	0.34	5.0
Potential Emission in tons/yr	1.45	1.72	1.54	51.31	14.45	0.25	3.61

Methodology
1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu
Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)
*PM emission factor is filterable PM only.
**PM10 emission factor is filterable PM10 of 1.08 lb/kgal + condensable PM emission factor of 1.3 lb/kgal.
***Direct PM2.5 emission factor is filterable PM2.5 of 0.83 lb/kgal + condensable PM emission factor of 1.3 lb/kgal.
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

Hazardous Air Pollutants (HAPs)

	HAPs - Metals				
	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Potential Emission in tons/yr	4.0E-04	3.0E-04	3.0E-04	3.0E-04	9.1E-04

	HAPs - Metals (continued)				
	Mercury	Manganese	Nickel	Selenium	
Emission Factor in lb/mmBtu	3.0E-06	6.0E-06	3.0E-06	1.5E-05	
Potential Emission in tons/yr	3.0E-04	6.1E-04	3.0E-04	1.5E-03	
				Total HAPs	**5.E-03**
				Worst HAP	**2.E-03**

Methodology
No data was available in AP-42 for organic HAPs.
Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: **Sonoco Protective Solutions, Inc.**
Address: **1619 North Meridian Street, Portland, Indiana 47371**
Permit Number: **T075-39639-00024**
Reviewer: **Rithika Reddy**

EU ID	Capacity (MMBtu/hr)
B1	10.5
B2	12.6
Total	**23.1**

Heat Input Capacity MMBtu/hr	mmBtu mmscf	Potential Throughput MMCF/yr
23.1	1020	198.4

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.19	0.75	0.75	0.06	9.92	0.55	8.33

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Hazardous Air Pollutants (HAPs)

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	2.1E-04	1.2E-04	7.4E-03	0.18	3.4E-04	**0.19**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	5.0E-05	1.1E-04	1.4E-04	3.8E-05	2.1E-04	**5.4E-04**
Methodology is the same as above.					**Total HAPs**	**0.19**
The five highest organic and metal HAPs emission factors are provided above.					**Worst HAP**	**0.18**
Additional HAPs emission factors are available in AP-42, Chapter 1.4.						

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: **Sonoco Protective Solutions, Inc.**
Address: **1619 North Meridian Street, Portland, Indiana 47371**
Permit Number: **T075-39639-00024**
Reviewer: **Rithika Reddy**

EU ID	Number of units	Capacity
B3	1	29.3
Space Heaters	4	0.5
	9	1.35
	1	0.2
	3	0.6
	1	0.15
	3	0.225
	Total	**32.1**

Heat Input Capacity MMBtu/hr	mmBtu / mmscf	Potential Throughput MMCF/yr
32.1	1020	275.7

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.26	1.05	1.05	0.08	13.78	0.76	11.58

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Hazardous Air Pollutants (HAPs)

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	2.9E-04	1.7E-04	1.0E-02	0.25	4.7E-04	**0.26**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	6.9E-05	1.5E-04	1.9E-04	5.2E-05	2.9E-04	**7.6E-04**
Methodology is the same as above.					**Total HAPs**	**0.26**
The five highest organic and metal HAPs emission factors are provided above.					**Worst HAP**	**0.25**
Additional HAPs emission factors are available in AP-42, Chapter 1.4.						

Appendix A: Emissions Calculations
Emissions from Insignificant Activities

Company Name: Sonoco Protective Solutions, Inc.
Address: 1619 North Meridian Street, Portland, Indiana 47371
Permit Number: T075-39639-00024
Reviewer: Rithika Reddy

Gas Engines

Output Horsepower Rating (hp)	16.5
Maximum Hours Operated per Year	500
Potential Throughput (hp-hr/yr)	8,250

Emission Unit	Number of units	Maximum Capacity (hp)
Vacuums	2	11
Snow blower	1	5.5

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission in tons/yr	0.01	0.01	0.01	0.01	0.13	0.01	0.03

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

	Pollutant							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	6.53E-06	2.86E-06	2.00E-06	2.74E-07	8.26E-06	5.37E-06	6.48E-07	1.18E-06
Potential Emission in tons/yr	2.69E-05	1.18E-05	8.23E-06	1.13E-06	3.41E-05	2.21E-05	2.67E-06	4.85E-06

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)
****Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

Potential Emission of Total HAPs (tons/yr)	**1.12E-04**

Hot Melt Adhesive

Material	Process	Gal of Mat (gal/day)	VOC Content % solids (by volume)	Potential VOC (lb/hr)	Potential VOC (lb/day)	Potential VOC (tons/year)
HM-2707	Hot melt adhesive	16.430	30.00%	0.21	4.93	0.90
				0.21	**4.93**	**0.90**

Methodology:
Potential VOC Pounds per Hour = Density (lb/gal) * Gal of Material (gal/day) / 24 hrs/day
Potential VOC Pounds per Day = Density (lb/gal) * Gal of Material (gal/day)
Potential VOC Tons per Year = Density (lb/gal) * Gal of Material (gal/day) * (365 days/yr) * (1 ton/2000 lbs)
Note: The above calculations are from T075-28002-00024, issued on March 9, 2009.

Flame Cutting

PROCESS	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
FLAME CUTTING				PM = PM10=PM2.5	Mn	Ni	Cr	PM = PM10=PM2.5	Mn	Ni	Cr	
Oxymethane	1	1.5	4	0.0815	0.0002		0.0002	0.029	7.E-05	0.E+00	7.E-05	1.E-04
EMISSION TOTALS												
Potential Emissions lbs/hr								0.03				1.E-04
Potential Emissions lbs/day								0.70				3.E-03
Potential Emissions tons/year								0.13				6.E-04

Methodology:
*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.
Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick
Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,(

Scrap Grinding

Process	% of bead product used as Scrap	EF (lb/ton)	Max. Process Weight Rate (lb/hr)	Control Efficiency (%)	PTE Before Control (lb/hr)	PTE Before Control (ton/yr)	PTE After Control (ton/yr)
Scrap Grinding	25.00%	1.00	1210.00	99.00%	0.151	0.662	0.00662

Methodology:
Potential PM Emissions (ton/hr) = Max. Process Rate (lb/hr) x (1 ton/ 2000 lb) x (% Scrap) x Emission Factor (lb/ton) * 8760 hrs/1 year* 1 ton/2000lbs
Assumes PM=PM10=PM2.5
Note: Above information is form permit No. 075-33287-00024, issued on November 27, 2013.

Appendix A: Emission Calculations
Fugitive Dust Emissions - Unpaved Roads

Company Name: Sonoco Protective Solutions, Inc.
Address: 1619 North Meridian Street, Portland, Indiana 47371
Permit Number: T075-39639-00024
Reviewer: Rithika Reddy

Unpaved Roads at Industrial Site

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (11/2006).

Vehicle Information (provided by source)

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Vehicle (entering plant) (one-way trip)	3.0	60.0	180.0	1.0	180.0	264	0.050	9.0	3285.0
Vehicle (leaving plant) (one-way trip)	3.0	60.0	180.0	1.0	180.0	264	0.050	9.0	3285.0
		Totals	**360.0**		**360.0**			**18.0**	**6570.0**

Average Vehicle Weight Per Trip = 1.0 tons/trip
Average Miles Per Trip = 0.05 miles/trip

Unmitigated Emission Factor, Ef = k*[(s/12)^a]*[(W/3)^b] (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	6	6	6	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-1 Sand/Gravel Processing Plant)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)
W =	1.0	1.0	1.0	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [(365 - P)/365] (Equation 2 from AP-42 13.2.2)

Mitigated Emission Factor, Eext = E * [(365 - P)/365]
where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	1.84	0.49	0.05	lb/mile
Mitigated Emission Factor, Eext =	1.21	0.32	0.03	lb/mile
Dust Control Efficiency =	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Vehicle (entering plant) (one-way trip)	3.02	0.81	0.08	1.99	0.53	0.05	0.99	0.26	0.03
Vehicle (leaving plant) (one-way trip)	3.02	0.81	0.08	1.99	0.53	0.05	0.99	0.26	0.03
Totals	**6.04**	**1.61**	**0.16**	**3.97**	**1.06**	**0.11**	**1.99**	**0.53**	**0.05**

Methodology

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Controlled PTE (tons/yr) = (Mitigated PTE (tons/yr)) * (1 - Dust Control Efficiency)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Eric J. Holcomb
Governor

Bruno L. Pigott
Commissioner

December 3, 2018

Mr. Brian Hayes
Sonoco Protective Solutions, Inc.
1619 North Meridian Street
Portland, IN 47371

Re: Public Notice
Sonoco Protective Solutions, Inc.
Permit Level: Title V Operating Permit Renewal
Permit Number: 075-39639-00024

Dear Mr. Hayes:

Enclosed is a copy of your draft Title V Operating Permit Renewal, Technical Support Document, emission calculations, and the Public Notice which will be printed in your local newspaper.

The Office of Air Quality (OAQ) has prepared two versions of the Public Notice Document. The abbreviated version will be published in the newspaper, and the more detailed version will be made available on the IDEM's website and provided to interested parties. Both versions are included for your reference. The OAQ has requested that the Commercial Review in Portland, Indiana publish the abbreviated version of the public notice no later than December 4, 2018. You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper.

OAQ has submitted the draft permit package to the Jay County Public Library, 315 North Shit Street in Portland, Indiana. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Rithika Reddy, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension (317) 234-9694 or dial (317) 234-9694.

Sincerely,

Vivian Haun

Vivian Haun
Permits Branch
Office of Air Quality

Enclosures
PN Applicant Cover Letter 1/9/2017

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Governor

Bruno L. Pigott
Commissioner

ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING

November 29, 2018

Commercial Review
309 West Main Street
PO Box 1049
Portland, IN 47371

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for Sonoco Protective Solutions, Inc., Jay County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than December 4, 2018.

Please send the invoice, notarized form, clippings showing the date of publication to Bo Liu, at the Indiana Department of Environmental Management, Accounting, Room N1340, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

To ensure proper payment, please reference account # 100174737.

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Vivian Haun at 800-451-6027 and ask for extension 317-233-6878 or dial 317-233-6878.

Sincerely,

Vivian Haun

Vivian Haun
Permit Branch
Office of Air Quality

Permit Level: Title V Operating Permit Renewal
Permit Number: 075-39639-00024

Enclosure
PN Newspaper.dot 1/9/2017

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Eric J. Holcomb, *Governor*
Bruno L. Pigott, *Commissioner*

December 3, 2018

To: Jay County Public Library

From: Jenny Acker, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information to Display Regarding a Public Notice for an Air Permit**

Applicant Name: Sonoco Protective Solutions, Inc.
Permit Number: 075-39639-00024

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Request to publish the Notice of 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. **Please make this information readily available until you receive a copy of the final package.**

If you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures
PN Library 1/9/2017

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Eric J. Holcomb
Governor

Bruno L. Pigott
Commissioner

Notice of Public Comment

December 3, 2018
Sonoco Protective Solutions, Inc.
075-39639-00024

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has been placed in the Legal Advertising section of your local newspaper. The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana's Air Permitting Program.

Please Note: *If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.*

Enclosure
PN AAA Cover Letter 1/9/2017

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Eric J. Holcomb
Governor

Bruno L. Pigott
Commissioner

AFFECTED STATE NOTIFICATION OF PUBLIC COMMENT PERIOD
DRAFT INDIANA AIR PERMIT

December 3, 2018

A 30-day public comment period has been initiated for:

Permit Number: **075-39639-00024**
Applicant Name: **Sonoco Protective Solutions, Inc.**
Location: **Portland, Jay County, Indiana**

The public notice, draft permit and technical support documents can be accessed via the **IDEM Air Permits Online** site at:
http://www.in.gov/ai/appfiles/idem-caats/

Questions or comments on this draft permit should be directed to the person identified in the public notice by telephone or in writing to:

Indiana Department of Environmental Management
Office of Air Quality, Permits Branch
100 North Senate Avenue
Indianapolis, IN 46204

Questions or comments regarding this email notification or access to this information from the EPA Internet site can be directed to Chris Hammack at chammack@idem.IN.gov or (317) 233-2414.

Mail Code 61-53

IDEM Staff	VHAUN 12/3/2018 Sonoco Protective Solutions Inc 075-39639-00024 DRAFT			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee / Remarks
1		Brian Hayes Sonoco Protective Solutions Inc 1619 N Meridian St Portland IN 47371 (Source RM)									
2		Ken Sears Sonoco Protective Solutions Inc 389 Cantigny Ct Valaparaiso IN 46383 *(RO RM)*									
3		Jay County Commissioners Jay County Courthouse Portland IN 47371 *(Local Official)*									
4		Portland City Council and Mayors Office 321 N. Meridian Portland IN 47371 *(Local Official)*									
5		Jay County Public Library 315 N. Ship Street Portland IN 47371 *(Library)*									
6		Jay County Health Department 504 West Arch Street Portland IN 47371 *(Health Department)*									
7		Victoria BrindAmour Sonoco Products Co-Global Environmental Services 7218 Church Avenue Ben Avon PA 15202 *(Source – addl contact)*									
8		Premier Ethanol, LLCI 1542 S. 200 W. Portland IN 47371 *(Affected Party)*									
9		Ray Cooney The Commercial Review 309 W Main St Portland IN 47371 *(Affected Party)*									
10											
11											
12											
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9			The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.

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