NOTICE OF 30-DAY PERIOD 
FOR PUBLIC COMMENT

Preliminary Findings Regarding a New Source Review/Construction and 
Minor Source Operating Permit (MSOP) 
for DS Smith - Lebanon in Boone County

MSOP No.: M011-41635-00070

The Indiana Department of Environmental Management (IDEM) has received an application from DS Smith Packaging - Lebanon, located at 800 Edwards Drive, Lebanon, IN, for a new source construction and MSOP. If approved by IDEM’s Office of Air Quality (OAQ), this proposed permit would allow DS Smith Packaging - Lebanon to construct and operate a new stationary corrugated paper and corrugated sheet manufacturing facility.

The applicant intends to construct and operate new equipment that will emit air pollutants. IDEM has reviewed this application, and has developed preliminary findings, consisting of a draft permit and several supporting documents, that would allow the applicant to make this change.

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

Lebanon Public Library
104 East Washington St.
Lebanon, IN 46052

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 posted on IDEM’s website (https://www.in.gov/idem/5474.htm) 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 M011-41635-00070 in all correspondence.

Comments should be sent to:

Jared Karban
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(800) 451-6027, ask for Jared Karban or (317) 233-4230
Or dial directly: (317) 233-4230
Fax: (317) 232-6749 attn: Jared Karban
E-mail: JKarban@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 Jared Karban of my staff at the above address.

[Signature]
Ghassan Shalabi, Section Chief
Permits Branch
Office of Air Quality
Minor Source Operating Permit
OFFICE OF AIR QUALITY

DS Smith Packaging - Lebanon
800 Edwards Drive
Lebanon, Indiana 46052

(herin 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.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Indiana statutes from IC 13 and rules from 326 IAC, quoted 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 MSOP under 326 IAC 2-6.1.

Operation Permit No.: M011-41635-00070
Master Agency Interest ID: 124579

Issued by:
Ghassan Shalabi, 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 and A.2 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 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary corrugated paper and corrugated sheet manufacturing facility.

<table>
<thead>
<tr>
<th>Source Address</th>
<th>800 Edwards Drive, Lebanon, Indiana 46052</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Source Phone Number</td>
<td>(803) 422-9337</td>
</tr>
<tr>
<td>SIC Code</td>
<td>2653 (Corrugated and Solid Fiber Boxes)</td>
</tr>
<tr>
<td>County Location</td>
<td>Boone</td>
</tr>
<tr>
<td>Source Location Status</td>
<td>Attainment for all criteria pollutants</td>
</tr>
<tr>
<td>Source Status</td>
<td>Minor Source Operating Permit Program</td>
</tr>
<tr>
<td></td>
<td>Minor Source, under PSD and Emission Offset Rules</td>
</tr>
<tr>
<td></td>
<td>Minor Source, Section 112 of the Clean Air Act</td>
</tr>
<tr>
<td></td>
<td>Not 1 of 28 Source Categories</td>
</tr>
</tbody>
</table>

A.2 Emission Units and Pollution Control Equipment Summary

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

(a) One (1) natural gas-fired boiler, identified as B-1, approved in 2019 for construction, with a maximum capacity of 26.78 MMBtu per hour, and exhausting to stack BP-1.

(b) One (1) starch silo, identified as SS, approved in 2019 for construction, with a maximum capacity of 10,000,000 pounds per year, using baghouse BH-1 as control, and exhausting to stack SSP-1.

(c) One (1) pre-print machine, identified as PPM-1, approved in 2019 for construction, using dust collector DC-1 as control, and exhausting to stack PPMP-1, and consisting of one (1) natural gas-fired burner, with a maximum capacity of 9.55 MMBtu per hour.

(d) Two (2) Emba 175 Flexographic Folder Gluers, identified as FFG-1 and FFG-2, approved in 2019 for construction, with a maximum capacity of 30,000 sheets per hour, using dust collector DC-1 as control, and exhausting to stack EP-1.

(e) Two (2) Emba 245 Flexographic Folder Gluers, identified as FFG-3 and FFG-4, approved in 2019 for construction, with a maximum capacity of 24,000 sheets per hour, using dust collector DC-1 as control, and exhausting to stack EP-1.

(f) One (1) Gopfert 1628 rotary die cutter, identified as RDC-1, approved in 2019 for construction, with a maximum capacity of 15,000 sheets per hour, using dust collector DC-1 as control, and exhausting to stack EP-1.

(g) One (1) Gopfert 1628 HBL rotary die cutter, identified as RDC-2, approved in 2019 for construction, with a maximum capacity of 15,000 sheets per hour, using dust collector DC-1 as control, and exhausting to stack EP-1.

(h) One (1) Automatan laminator, identified as Lam, approved in 2019 for construction, with a maximum capacity of 278.79 pounds per hour of applied material, and exhausting to stack EP-1.

(i) A scrap handling system, consisting of:

(1) One (1) corrugator, identified as CORR, approved in 2019 for construction, with a maximum capacity of 1,500 feet per minute, using dust collector DC-1 as control, and exhausting to stack EP-1.
(2) One (1) Bobst Mastercut 2.1 flatbed die cutter, identified as FDBC-1, approved in 2019 for construction, with a maximum capacity of 12,000 sheets per hour, using dust collector DC-1 as control, and exhausting to stack EP-1.

(3) One (1) Bobst Expertfold 300 folder gluer, identified as FG-1, approved in 2019 for construction, with a maximum capacity of 7,262,733 cubic inches per hour, using dust collector DC-1 as control, and exhausting to stack EP-1.

(4) One (1) cyclone, identified as CYC, approved in 2019 for construction, with a maximum capacity of 2,500,000,000 square feet of scrap material per year, using dust collector DC-1 as control, and exhausting to EP-1.

(5) One (1) shredder and baler, identified as IES-6, approved in 2019 for construction.

(j) One (1) Anilox abrasive roll cleaner, identified as ARCS, approved in 2019 for construction, with a maximum flow rate of 60 lbs per hour, using dust collector DC-2 as control, and exhausting to EP-1.

(k) One (1) parts washer, identified as PW, approved in 2019 for construction, with a maximum capacity of 2,000 gallons per year, and exhausting to EP-1.

The following units have no emissions, but have been included in the permit per source request:

(l) One (1) Automatan Autofeed 300 cardboard pre-feeder, identified as IES-1.

(m) One (1) Automatan Autostack, identified as IES-2.

(n) One (1) Ducker Corrpal bundler, identified as IES-3.

(o) One (1) Signode ISB bundle strapper, identified as IES-4.

(p) One (1) Signode VCS with squaring bundle strapper, identified as IES-5.

(q) One (1) Bobst FS Polyjoiner feeder, identified as IES-7.
SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]
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 2-1.1-1) shall prevail.

B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]
(a) This permit 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, 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
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
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
This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information
(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 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) The annual notice shall be submitted in the format attached no later than March 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

(c) The notification 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.

B.9 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, 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 Permittee shall implement the PMPs.

(b) 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.

(c) 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.10 Prior Permits Superseded [326 IAC 2-1.1-9.5]

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

(1) incorporated as originally stated,
(2) revised, or
(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

B.11 Termination of Right to Operate [326 IAC 2-6.1-7(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 one hundred twenty (120) days prior to the date of expiration of the source’s existing permit, consistent with 326 IAC 2-6.1-7.

B.12 Permit Renewal [326 IAC 2-6.1-7]

(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 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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 one hundred twenty (120) days 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 2-6.1 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 2-6.1-4(b), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.13 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 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

(c) The Permittee shall notify the OAQ no later than thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.14 Source Modification Requirement

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.
B.15 Inspection and Entry

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 permitted 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, at reasonable times, 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, at reasonable times, 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, at reasonable times, 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.16 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 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

The application which shall be submitted by the Permittee does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.17 Annual Fee Payment [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees due no later than thirty (30) calendar days of receipt of a bill from IDEM, OAQ.

(b) 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.18 Credible Evidence [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.
B.19 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4]

This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 when prior to the start of operation, the following requirements are met:

(a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), verifying that the emission units were constructed as proposed in the application or the permit. The emission units covered in this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM if constructed as proposed.

(b) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 3 and an Operation Permit Validation Letter is issued.

(c) The Permittee shall attach the Operation Permit Validation Letter received from the Office of Air Quality (OAQ) to this permit.
SECTION C  SOURCE OPERATION CONDITIONS

**Emission Limitations and Standards [326 IAC 2-6.1-5(a)(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 Permit Revocation [326 IAC 2-1.1-9]**

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

**C.3 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.4 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.5 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.6 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).
C.7 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.

(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 renovationdemolition, 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 2-6.1-5(a)(2)]

C.8 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:
no later than thirty-five (35) days prior to the intended test date.

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.

(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.9 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 2-6.1-5(a)(2)]

C.10 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.11 Instrument Specifications [326 IAC 2-1.1-11]

(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

C.12 Response to Excursions or Exceedances

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.13 Actions Related to Noncompliance Demonstrated by a Stack Test

(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.

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

C.14 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, startups or shutdowns of any emission unit or emission control equipment, that results in violations of applicable air pollution control regulations or applicable emission limitations must be kept and retained for a period of three (3) years and be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

(b) When a malfunction of any emission unit or emission control equipment occurs that lasts more than one (1) hour, the condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification must be made by telephone or other electronic means, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of the occurrence.

(c) Failure to report a malfunction of any emission unit or emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information on the scope and expected duration of the malfunction must be provided, including the items specified in 326 IAC 1-6-2(c)(3)(A) through (E).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]
C.15 General Record Keeping Requirements [326 IAC 2-6.1-5]

(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. 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) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B)) that a “project” (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a “major modification” (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(yy)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with the following:

(1) Before beginning actual construction of the “project” (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, document and maintain the following records:

(A) A description of the project.

(B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.

(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:

(i) Baseline actual emissions;

(ii) Projected actual emissions;

(iii) Amount of emissions excluded under section 326 IAC 2-2-1(pp)(2)(A)(iii) and/or 326 IAC 2-3-1 (kk)(2)(A)(iii); and

(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(d) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)) that a “project” (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a “major modification” (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(yy)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with the following:

(1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and

(2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.
C.16 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) Reports required by conditions in Section D of 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

(b) 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.

(c) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. 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.

(d) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any “project” (as defined in 326 IAC 2-2-1 (oo) and/or 326 IAC 2-3-1 (jj)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

1. The annual emissions, in tons per year, from the project identified in (c)(1) in Section C - General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (ww) and/or 326 IAC 2-3-1 (pp), for that regulated NSR pollutant, and

2. The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).

(e) The report for project at an existing emissions unit shall be submitted no later than sixty (60) days after the end of the year and contain the following:

1. The name, address, and telephone number of the major stationary source.

2. The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.

3. The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).

4. Any other information that the Permittee wishes to include in this report such as an explanation as to why the emissions differ from the preconstruction projection.

Reports required in this part 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

(f) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C - General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.
SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(i) A scrap handling system, consisting of:

(a) One (1) corrugator, identified as CORR, approved in 2019 for construction, with a maximum capacity of 1,500 feet per minute, using dust collector DC-1 as control, and exhausting to stack EP-1.

(b) One (1) Bobst Mastercut 2.1 flatbed die cutter, identified as FDBC-1, approved in 2019 for construction, with a maximum capacity of 12,000 sheets per hour, using dust collector DC-1 as control, and exhausting to stack EP-1.

(c) One (1) Bobst Expertfold 300 folder gluer, identified as FG-1, approved in 2019 for construction, with a maximum capacity of 7,262,733 cubic inches per hour, using dust collector DC-1 as control, and exhausting to stack EP-1.

(d) One (1) cyclone, identified as CYC, approved in 2019 for construction, with a maximum capacity of 2,500,000,000 square feet of scrap material per year, using dust collector DC-1 as control, and exhausting to EP-1.

(e) One (1) shredder and baler, identified as IES-6, approved in 2019 for construction.

(j) One (1) Anilox abrasive roll cleaner, identified as ARCS, approved in 2019 for construction, with a maximum flow rate of 60 lbs per hour, using dust collector DC-2 as control, and exhausting to EP-1.

(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 2-6.1-5(a)(1)]

D.1.1 Particulate Emission Limitations [326 IAC 6-3-2]
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the scrap handling system shall not exceed the following limits:

<table>
<thead>
<tr>
<th>Process / Emission Unit</th>
<th>P (ton/hr)</th>
<th>Limit: E (lb/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scrap handling system</td>
<td>69.35</td>
<td>17.625</td>
</tr>
</tbody>
</table>

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

\[ E = 55.0 P^{0.11} - 40 \]

Where \( E \) = rate of emission in pounds per hour; and \( P \) = process weight rate in tons per hour

The cyclone shall be in operation at all times the scrap handling system is in operation, in order to comply with this limit.

D.1.2 Particulate Emission Limitations [326 IAC 6-3-2]
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the roll cleaner shall not exceed 0.551 pounds per hour when operating at a process weight rate of 60 pounds per hour.

The dust collector shall be in operation at all times the roll cleaner is in operation, in order to comply with this limit.
D.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for this facility and its control device. Section B - Preventive Maintenance Plan contains the Permittee’s obligation with regard to the preventive maintenance plan required by this condition.

D.1.4 Particulate Control

In order to assure compliance with Condition D.1.1, the cyclone for particulate matter control shall be in operation and control emissions from the scrap handling system at all times the facility is in operation.

D.1.5 Testing Requirements [326 IAC 2-1.1-11]

In order to demonstrate compliance with 326 IAC 2-6.1 (Minor Source Operating Permit (MSOP)), and to verify the PM emission rate(s) in Condition D.1.1, not later than 180 days after the startup of scrap handling system, the Permittee shall perform PM/PM10/PM2.5 testing (before controls) of the cyclone to verify the PM/PM10/PM2.5 emission factors, utilizing methods approved by the commissioner at least once every 5 years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee’s obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable PM.

D.1.6 Particulate Control

In order to comply with Condition D.1.2, the dust collector shall be in operation and control emissions from the roll cleaner at all times that the abrasive blasting is in operation.

D.1.7 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.
**Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]**

**D.1.8 Visible Emissions Notations**

(a) Visible emission notations of the dust collector stack exhaust identified as DC-2 shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(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.1.9 Record Keeping Requirements**

(a) To document the compliance status with Condition D.1.8 - Visible Emissions Notations, the Permittee shall maintain records of daily visible emission notations of the dust collector stack exhaust. 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 (e.g. the process did not operate that day).

(b) Section C - Response to Excursions or Exceedances contains the Permittee's obligations with regard to the records required by this condition.
SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(k) One (1) parts washer, identified as PW, approved in 2019 for construction, with a maximum capacity of 2,000 gallons per year, and exhausting to EP-1.

(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 2-6.1-5(a)(1)]

D.2.1 Cold Cleaner Degreaser Control Equipment and Operating Requirements [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), the Permittee shall:

(a) Ensure the following control equipment and operating requirements are met:

(1) Equip the degreaser with a cover.

(2) Equip the degreaser with a device for draining cleaned parts.

(3) Close the degreaser cover whenever parts are not being handled in the degreaser.

(4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).

(6) Store waste solvent only in closed containers.

(7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

(b) Ensure the following additional control equipment and operating requirements are met:

(1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):

   (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

   (B) A water cover when solvent used is insoluble in, and heavier than, water.

   (C) A refrigerated chiller.

   (D) Carbon adsorption.

   (E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

(2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.

(3) If used, solvent spray:

   (A) must be a solid, fluid stream; and

   (B) shall be applied at a pressure that does not cause excessive splashing.

D.2.2 Material Requirements for Cold Cleaner Degreasers [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers), the Permittee shall not operate a cold cleaning degreaser with a solvent that has a VOC composite partial vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch)
measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

D.2.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for this facility. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Record Keeping and Reporting Requirement [326 IAC 2-7-19]

D.2.4 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.1, the Permittee shall maintain the following records for each purchase of solvent used in the cold cleaner degreasing operations. These records shall be retained on-site or accessible electronically for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

(1) The name and address of the solvent supplier.

(2) The date of purchase (or invoice/bill dates of contract servicer indicating service date).

(3) The type of solvent purchased.

(4) The total volume of the solvent purchased.

(5) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.
SECTION E.1  NSPS

Emissions Unit Description:

(a) One (1) natural gas-fired boiler, identified as B-1, approved in 2019 for construction, with a maximum capacity of 26.78 MMBtu per hour, and exhausting to stack BP-1.

(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 2-6.1-5(a)(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(s) 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 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(s) listed above:

(1) 40 CFR 60.40c
(2) 40 CFR 60.41c
(3) 40 CFR 60.48c(c).(g)

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

E.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for these facilities and any control devices. Section B - Preventive Maintenance Plan contains the Permittee’s obligation with regard to the preventive maintenance plan required by this condition.
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

<table>
<thead>
<tr>
<th>Company Name:</th>
</tr>
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<tbody>
<tr>
<td>Address:</td>
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<tr>
<td>City:</td>
</tr>
<tr>
<td>Phone #:</td>
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<tr>
<td>MSOP #:</td>
</tr>
</tbody>
</table>

I hereby certify that is:

- ☐ still in operation.
- ☐ no longer in operation.

I hereby certify that is:

- ☐ in compliance with the requirements of MSOP.
- ☐ not in compliance with the requirements of MSOP.

Authorized Individual (typed):

<table>
<thead>
<tr>
<th>Title:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature:</td>
</tr>
<tr>
<td>Date:</td>
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</tbody>
</table>

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

<table>
<thead>
<tr>
<th>Noncompliance:</th>
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<tbody>
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</table>
This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

This facility meets the applicability requirements because it has potential to emit 25 tons/year particulate matter, 25 tons/year sulfur dioxide, 25 tons/year nitrogen oxides, 25 tons/year VOC, 25 tons/year hydrogen sulfide, 25 tons/year total reduced sulfur, 25 tons/year reduced sulfur compounds, 25 tons/year fluorides, 100 tons/year carbon monoxide, 10 tons/year any single hazardous air pollutant, 25 tons/year any combination hazardous air pollutant, 1 ton/year lead or lead compounds measured as elemental lead, or is a source listed under 326 IAC 2-5.1-3(2). Emissions from malfunctioning control equipment or process equipment caused emissions in excess of applicable limitation.

This malfunction resulted in a violation of: 326 IAC _______ or, permit condition # _______ and/or permit limit of _______________.

This incident meets the definition of "malfunction" as listed on reverse side? Y N

This malfunction is or will be longer than the one (1) hour reporting requirement? Y N

| COMPANY: ____________________________ | PHONE NO. (   ) __________ |
| LOCATION: (CITY AND COUNTY) __________________________________________________________________________ |
| PERMIT NO. __________________ AFS PLANT ID: ______________ AFS POINT ID: ______________ INSPEC: __________ |
| CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: ________________________________________________ |

DATE/TIME MALFUNCTION STARTED: _____/_____/20____ AM/PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _______________________________________________

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE: _____/_____/20____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: ________________________________________________

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: ___________________________________________

MEASURES TAKEN TO MINIMIZE EMISSIONS: ________________________________________________________________

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: ____________________________________________

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: ____________________________________________

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: ________________________________

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____________________________________________________________

MALFUNCTION REPORTED BY: ___________________________ TITLE: ___________________________

(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: __________________________ DATE: __________ TIME: ____________

*SEE PAGE 2
Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 “Malfunction” definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

*Essential services are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

________________________________________________________________________
________________________________________________________________________
Affidavit of Construction

I, ____________________________ being duly sworn upon my oath, depose and say:

(Name of the Authorized Representative)

1. I live in ______________ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.

2. I hold the position of ______________ for ______________.

   (Title)           (Company Name)

3. By virtue of my position with ______________, I have personal knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of ______________.

   (Company Name)

4. I hereby certify that DS Smith Packaging – Lebanon, 800 Edwards Drive, Lebanon, Indiana 46052, completed construction of the stationary corrugated paper and corrugated sheet manufacturing facility on in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on June July 5, 2019 and as permitted pursuant to New Source Construction Permit and Minor Source Operating Permit No. M011-41635-00070, Plant ID No. 011-00070 issued on _____________.

5. Permittee, please cross out the following statement if it does not apply: Additional (operations/facilities) were constructed/substituted as described in the attachment to this document and were not made in accordance with the construction permit.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature______________________________

Date______________________________

STATE OF INDIANA)

)SS

COUNTY OF _______________________

Subscribed and sworn to me, a notary public in and for __________________ County and State of Indiana on this ______________ day of ______________, 20____. My Commission expires: ___________________.

Signature______________________________

Name______________________________ (typed or printed)
§ 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 (SO2) 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 BBBBB 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 NOX standards under this subpart and the SO2 standards under subpart J or subpart Ja of this part, as applicable.

(i) Temporary boilers are not subject to this subpart.
§ 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 SO2 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 SO₂ 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 SO₂ 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 SO2 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 SO2 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 SO2.

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.


§ 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 SO2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO2 emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO2 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 SO2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO2 emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO2 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 SO₂ in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 20 percent (0.20) of the potential SO₂ emission rate (80 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of SO₄ 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 SO₂ emissions limit or the 90 percent SO₂ 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 SO₂ emissions shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 50 percent (0.50) of the potential SO₂ emission rate (50 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ 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 SO₂ 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 SO₂ 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 SO₂ 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 SO₂ in excess of the following:

(1) The percent of potential SO₂ emission rate or numerical SO₂ 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:

\[
E_s = \left( \frac{K_a H_a + K_b H_b + K_c H_c}{H_a + H_b + H_c} \right)
\]

Where:

- \( E_s \) = SO\(_2\) emission limit, expressed in ng/J or lb/MMBtu heat input;
- \( K_a = 520 \text{ ng/J (1.2 lb/MMBtu)} \);
- \( K_b = 260 \text{ ng/J (0.60 lb/MMBtu)} \);
- \( K_c = 215 \text{ ng/J (0.50 lb/MMBtu)} \);
- \( H_a \) = 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.


§ 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/MBtu) 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/MBtu) 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/MBtu) 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/MBtu) 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/MBtu 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/MBtu) 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 SO2 emissions is not subject to the PM limit in this section.


§ 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 SO2 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 SO2 emission limits under § 60.42c is based on the average percent reduction and the average SO2 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 SO2 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 SO2 emission rate (Eho ) and the 30-day average SO2 emission rate (Eao ). 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 Eao 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 Eao (Eao o) is used in Equation 19-19 of Method 19 of appendix A of this part to compute the adjusted Eao (Eao o). The Eao is computed using the following formula:

\[
E_{ao} = \frac{E_{ao} - E_{ho} (1-X_1)}{X_3}
\]
Where:

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

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

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

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

(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 \( E_{ao} \) from paragraph (e)(1) of this section and an adjusted average \( SO_2 \) inlet rate (\( E_{ai} \)) using the following formula:

\[
\%R_g^o = 100 \left( 1 - \frac{E_{ai}}{E_{ao}} \right)
\]

Where:

\( \%R_g^o \) = Adjusted \( \%R_g \), in percent;

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

\( E_{ai} = \text{Adjusted average } SO_2 \text{ inlet rate, ng/J (lb/MMBtu)}. \)
(ii) To compute \( E_{hi}^o \), an adjusted hourly SO\(_2\) inlet rate (\( E_{hi} \)) 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 (O₂) or carbon dioxide (CO₂) 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 O₂ or CO₂ 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 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 O₂ (or CO₂) 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 CO₂), 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.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).


§ 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 SO2 emission limits under § 60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO2 concentrations and either O2 or CO2 concentrations at the outlet of the SO2 control device (or the outlet of the steam generating unit if no SO2 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 SO2 concentrations and either O2 or CO2 concentrations at both the inlet and outlet of the SO2 control device.

(b) The 1-hour average SO2 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 SO2 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 SO2 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 SO2 CEMS at the inlet to the SO2 control device shall be 125 percent of the maximum estimated hourly potential SO2 emission rate of the fuel combusted, and the span value of the SO2 CEMS at the outlet from the SO2 control device shall be 50 percent of the maximum estimated hourly potential SO2 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 SO2 CEMS at the outlet from the SO2 control device (or outlet of the steam generating unit if no SO2 control device is used) shall be 125 percent of the maximum estimated hourly potential SO2 emission rate of the fuel combusted.

(d) As an alternative to operating a CEMS at the inlet to the SO2 control device (or outlet of the steam generating unit if no SO2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO2 emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEMS at the outlet from the SO2 control device (or outlet of the steam generating unit if no SO2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO2 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 SO2 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 SO2 at the inlet or outlet of the SO2 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 SO2 and CO2 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 SO2 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, SO2, 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(j)(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 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).
§ 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 SO₂ 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 SO₂ 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 SO₂ 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 SO₂ 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 SO₂ 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 SO₂ 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 SO₂ or diluent (O₂ or CO₂ ) 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 SO₂ 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 SO₂ 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]
Source Description and Location

<table>
<thead>
<tr>
<th>Source Name:</th>
<th>DS Smith Packaging - Lebanon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Location:</td>
<td>800 Edwards Drive, Lebanon, IN 46052</td>
</tr>
<tr>
<td>County:</td>
<td>Boone</td>
</tr>
<tr>
<td>SIC Code:</td>
<td>2653 (Corrugated and Solid Fiber Boxes)</td>
</tr>
<tr>
<td>Operation Permit No.:</td>
<td>M011-41635-00070</td>
</tr>
<tr>
<td>Permit Reviewer:</td>
<td>Jared Karban</td>
</tr>
</tbody>
</table>

On July 5, 2019, the Office of Air Quality (OAQ) received an application from DS Smith Packaging - Lebanon related to the construction and operation of a new stationary corrugated paper and corrugated sheet manufacturing facility.

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Boone County.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO\textsubscript{2}</td>
<td>Better than national standards.</td>
</tr>
<tr>
<td>CO</td>
<td>Unclassifiable or attainment effective November 15, 1990.</td>
</tr>
<tr>
<td>O\textsubscript{3}</td>
<td>Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard.\textsuperscript{1}</td>
</tr>
<tr>
<td>PM\textsubscript{2.5}</td>
<td>Unclassifiable or attainment effective April 15, 2015, for the 2012 annual PM\textsubscript{2.5} standard.</td>
</tr>
<tr>
<td>PM\textsubscript{10}</td>
<td>Unclassifiable effective November 15, 1990.</td>
</tr>
<tr>
<td>NO\textsubscript{2}</td>
<td>Unclassifiable or attainment effective January 29, 2012, for the 2010 NO\textsubscript{2} standard.</td>
</tr>
<tr>
<td>Pb</td>
<td>Unclassifiable or attainment effective December 31, 2011, for the 2008 lead standard.</td>
</tr>
</tbody>
</table>

\textsuperscript{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\textsubscript{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\textsubscript{x} emissions are considered when evaluating the rule applicability relating to ozone. Boone County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO\textsubscript{x} emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) PM\textsubscript{2.5}
Boone County has been classified as attainment for PM\textsubscript{2.5}. Therefore, direct PM\textsubscript{2.5}, SO\textsubscript{2}, and NO\textsubscript{x} emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
(c) Other Criteria Pollutants
Boone 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.

<table>
<thead>
<tr>
<th>Fugitive Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Since this type of operation is not one (1) of the twenty-eight (28) listed source categories under 326 IAC 2-2-1(ff)(1), 326 IAC 2-3-2(g), or 326 IAC 2-7-1(22)(B), and there is no applicable New Source Performance Standard or National Emission Standard for Hazardous Air Pollutants that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.</td>
</tr>
</tbody>
</table>

The fugitive emissions of hazardous air pollutants (HAP) are counted toward the determination of Part 70 Permit (326 IAC 2-7) and MSOP (326 IAC 2-6.1) applicability and source status under Section 112 of the Clean Air Act (CAA).

<table>
<thead>
<tr>
<th>Greenhouse Gas (GHG) Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>On June 23, 2014, in the case of Utility Air Regulatory Group v. EPA, cause no. 12-1146, (available at <a href="http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf">http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf</a>) 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.”</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Background and Description of Emission Units and Pollution Control Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Office of Air Quality (OAQ) has reviewed an application, submitted by DS Smith Packaging - Lebanon on July 5, 2019, relating to constructing a new stationary corrugated paper and corrugated sheet manufacturing facility.</td>
</tr>
</tbody>
</table>

The following is a list of the new emission units and pollution control devices:

(a) One (1) natural gas-fired boiler, identified as B-1, approved in 2019 for construction, with a maximum capacity of 26.78 MMBtu per hour, and exhausting to stack BP-1.

(b) One (1) starch silo, identified as SS, approved in 2019 for construction, with a maximum capacity of 10,000,000 pounds per year, using baghouse BH-1 as control, and exhausting to stack SSP-1.

(c) One (1) pre-print machine, identified as PPM-1, approved in 2019 for construction, using dust collector DC-1 as control, and exhausting to stack PPMP-1, and consisting of one (1) natural gas-fired burner, with a maximum capacity of 9.57 MMBtu per hour.

(d) Two (2) Emba 175 Flexographic Folder Gluers, identified as FFG-1 and FFG-2, approved in 2019 for construction, with a maximum capacity of 30,000 sheets per hour, using dust collector DC-1 as control, and exhausting to stack EP-1.
(e) Two (2) Emba 245 Flexographic Folder Gluers, identified as FFG-3 and FFG-4, approved in 2019 for construction, with a maximum capacity of 24,000 sheets per hour, using dust collector DC-1 as control, and exhausting to stack EP-1.

(f) One (1) Gopfert 1628 rotary die cutter, identified as RDC-1, approved in 2019 for construction, with a maximum capacity of 15,000 sheets per hour, using dust collector DC-1 as control, and exhausting to stack EP-1.

(g) One (1) Gopfert 1628 HBL rotary die cutter, identified as RDC-2, approved in 2019 for construction, with a maximum capacity of 15,000 sheets per hour, using dust collector DC-1 as control, and exhausting to stack EP-1.

(h) One (1) Automatan laminator, identified as Lam, approved in 2019 for construction, with a maximum capacity of 278.79 pounds per hour of applied material, and exhausting to stack EP-1.

(i) A scrap handling system, consisting of:

   (1) One (1) corrugator, identified as CORR, approved in 2019 for construction, with a maximum capacity of 1,500 feet per minute, using dust collector DC-1 as control, and exhausting to stack EP-1.

   (2) One (1) Bobst Mastercut 2.1 flatbed die cutter, identified as FDBC-1, approved in 2019 for construction, with a maximum capacity of 12,000 sheets per hour, using dust collector DC-1 as control, and exhausting to stack EP-1.

   (3) One (1) Bobst Expertfold 300 folder gluer, identified as FG-1, approved in 2019 for construction, with a maximum capacity of 7,262,733 cubic inches per hour, using dust collector DC-1 as control, and exhausting to stack EP-1.

   (4) One (1) cyclone, identified as CYC, approved in 2019 for construction, with a maximum capacity of 2,500,000,000 square feet of scrap material per year, using dust collector DC-1 as control, and exhausting to EP-1.

   (5) One (1) shredder and baler, identified as IES-6, approved in 2019 for construction.

(j) One (1) Anilox abrasive roll cleaner, identified as ARCS, approved in 2019 for construction, with a maximum flow rate of 60 lbs per hour, using dust collector DC-2 as control, and exhausting to EP-1.

(k) One (1) parts washer, identified as PW, approved in 2019 for construction, with a maximum capacity of 2,000 gallons per year, and exhausting to EP-1.

The following units have no emissions, but have been included in the permit per source request:

(l) One (1) Automatan Autofeed 300 cardboard pre-feeder, identified as IES-1.

(m) One (1) Automatan Autostack, identified as IES-2.

(n) One (1) Ducker Corrpal bundler, identified as IES-3.

(o) One (1) Signode ISB bundle strapper, identified as IES-4.

(p) One (1) Signode VCS with squaring bundle strapper, identified as IES-5.

(q) One (1) Bobst FS Polyjoiner feeder, identified as IES-7.
“Integral Part of the Process” Determination

The source submitted the following information to justify why the cyclone should be considered an integral part of the scrap handling system:

(a) Primary Purpose of Equipment

The controls serve a primary purpose other than pollution control.

The primary purpose of the cyclone is to recover scrap trimmings from the equipment for shipment off-site.

The plant produces packaging that can be used for food-grade applications. For this reason, the in-plant air handling has to meet “clean” standards to prevent contamination in accordance with 21 CFR part 117, subpart N (Food & Drug Administration). Therefore, the machines with cutting operations have scrap and dust collection that are under vacuum to collect scrap and dust that is ducted to the cyclone and subsequently to the filtration system. The cyclone will be evaluated as an integral device. The filtration system will not be evaluated as an integral device.

The cyclone collects the large pieces of scrap from the cutting machines and routes them to the baler for shipment off-site. Without this system, large pieces of scrap could potentially jam the machines, causing them to be inoperable.
(b) Savings from Material Recovery

The controls have an overwhelming positive net economic effect.

**Cost Saving Analysis**

**Cost Savings Benefit**
- Cost of scrap material per ton: $60
- Tons of material per month: 2,400
- Saved scrap material when fully operational for one month: $144,000
- **Saved scrap material when fully operational for one year:** $1,728,000

**Annual Operating Cost**
- Capital cost of equipment: $1,400,000
- Equipment life: 15 years
- Monthly maintenance costs: $10,000
- Annual maintenance costs: $120,000
- **Annualized cost:** $213,333

**Annual Cost Benefit:** $1,514,667

The large pieces of scrap material that the cyclone collects are routed to the baler and shipped off-site. Without the cyclone, the large pieces of scrap could not be conveyed to the baler and would jam the equipment causing the operation to stop. The large scrap pieces from the cyclone are sold to mills for recycling. DS Smith anticipates to receive approximately $60 per ton which corresponds to savings of $144,000 per month, based on the anticipated recycled throughput of 2,400 tons/month. The cost to install the cyclone and scrap handling system is $1,400,000. The annualized cost is $93,333 per year for an expected lifespan of 15 years. The estimated monthly costs to operate and maintain the scrap handling system is approximately $10,000. Since the anticipated monthly savings from selling the scrap material is $144,000, there is an overwhelming economic advantage to using the scrap handling system.

(c) Would equipment be installed if there were no air quality regulations?

Because the plant produces packaging that can be used for food-grade applications, the particulate must be removed from the room to prevent contamination of the packaging and the scraps must be collected from the machines to prevent jamming.

IDEM, OAQ has evaluated the information submitted by the source and agrees that the cyclone, identified as CYC, should be considered integral to the scrap handling system since the controls serve a primary purpose other than pollution control and there is an overwhelming positive net economic effect. The operation of the cyclone will save the source $1,728,000 of material per year, and the scrap handling system cannot operate independent of the cyclone. Therefore, the cyclone is integral to the process and permitting level will be determined based on emissions after the cyclone. Operating conditions in the permit will specify that the source shall operate the controls at all times the emission unit is operating.

**Enforcement Issues**

There are no pending enforcement actions related to this source.

**Emission Calculations**

See Appendix A of this Technical Support Document for detailed emission calculations.
Permit Level Determination – MSOP

This table reflects the unrestricted potential emissions of the source. If the control equipment has been determined to be integral, the table reflects the potential to emit (PTE) after consideration of the integral control device.

<table>
<thead>
<tr>
<th>Unrestricted Source-Wide Emissions (ton/year)</th>
<th>PM¹</th>
<th>PM₁₀¹</th>
<th>PM₂.₅¹,²</th>
<th>SO₂</th>
<th>NOₓ</th>
<th>VOC</th>
<th>CO</th>
<th>Total HAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total PTE of Entire Source Excluding Fugitives*</td>
<td>85.29</td>
<td>85.91</td>
<td>85.91</td>
<td>0.09</td>
<td>15.61</td>
<td>56.09</td>
<td>13.11</td>
<td>1.70</td>
</tr>
<tr>
<td>Title V Major Source Thresholds</td>
<td>--</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>25</td>
</tr>
<tr>
<td>Total PTE of Entire Source Including Source-Wide Fugitives*</td>
<td>98.31</td>
<td>88.51</td>
<td>86.55</td>
<td>0.09</td>
<td>15.61</td>
<td>56.09</td>
<td>13.11</td>
<td>1.70</td>
</tr>
<tr>
<td>MSOP Thresholds</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>100</td>
<td>25</td>
</tr>
</tbody>
</table>

¹Under the Part 70 Permit program (40 CFR 70), PM₁₀ and PM₂.₅, not particulate matter (PM), are each considered as a “regulated air pollutant.”
²PM₂.₅ listed is direct PM₂.₅.
*Fugitive HAP emissions are always included in the source-wide emissions.

Appendix A of this TSD reflects the detailed unrestricted potential emissions of the source.

(a) The potential to emit (as defined in 326 IAC 2-1.1-1) of PM, PM₁₀, PM₂.₅, and VOC are each less than one hundred (100) tons per year, but greater than or equal to twenty-five (25) tons per year. The potential to emit of all other criteria pollutants is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. The source will be issued an Minor Source Operating Permit (MSOP).

(b) The potential to emit (as defined in 326 IAC 2-1.1-1) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-1.1-1) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7. The source will be issued an Minor Source Operating Permit (MSOP).

Federal Rule Applicability Determination

Federal rule applicability for this source has been reviewed as follows:

New Source Performance Standards (NSPS):

(a) The requirements of the New Source Performance Standards for Fossil-Fuel-Fired Steam Generators, 40 CFR 60, Subpart D are not included in the permit for this source, since it does not operate fossil-fuel-fired steam generator of more than 250 MMBtu per hour.

(b) The requirements of the New Source Performance Standards for Electric Utility Steam Generating Units, 40 CFR 60, Subpart Da are not included in the permit for this source, since it is not capable of combusting more than 250 MMBtu per hour.

(c) The requirements of the New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Db are not included in the permit for this source, since it is not capable of combusting more than 100 MMBtu per hour.
(d) Boiler B-1 is subject to the New Source Performance Standards for Small Industrial-Commercial-Institutional Generating Units, 40 CFR 60, Subpart Dc and 326 IAC 12, because it is a steam generating unit constructed after June 9, 1989 and has a maximum design capacity of 100 MMBtu/hr or less, but greater than or equal to 10 MMBtu/hr. The boiler is subject to this rule includes the following:

(1) 40 CFR 60.40c
(2) 40 CFR 60.7
(3) 40 CFR 60.48c(c),(g)

The requirements of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the boiler except as otherwise specified in 40 CFR 60, Subpart Dc.

(b) There are no other New Source Performance Standards (40 CFR Part 60) and 326 IAC 12 included in the permit.

**National Emission Standards for Hazardous Air Pollutants (NESHAP):**

(a) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Pulp and Paper Industry, 40 CFR 63, Subpart S are not included in the permit for this source, since it does not perform pulping or milling.

(b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Paper and Other Web Coating, 40 CFR 63, Subpart JJJJ are not included in the permit for this source, since it is not a major source of HAP.

(c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Halogenated Solvent Cleaning, 40 CFR 63, Subpart T and 326 IAC 20-6 are not included in the permit for the parts washer, since the solvent used does not contain methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination of these halogenated HAP solvents in a total concentration greater than five percent (5%) by weight as a cleaning or drying agent.

(d) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD are not included in the permit for this source, since it is not a major source of HAP.

(e) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJJJ are not included in the permit for this source, since it operates a gas-fired boiler.

(f) There are no National Emission Standards for Hazardous Air Pollutants under 40 CFR 63, 326 IAC 14 and 326 IAC 20 included in the permit.

**Compliance Assurance Monitoring (CAM):**

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

<table>
<thead>
<tr>
<th>State Rule Applicability - Entire Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>State rule applicability for this source has been reviewed as follows:</td>
</tr>
</tbody>
</table>
DS Smith Packaging - Lebanon Page 8 of 12
Lebanon, Indiana TSD for New Source Construction MSOP No. 011-41635-00070
Permit Reviewer: Jared Karban

326 IAC 2-6.1 (Minor Source Operating Permits (MSOP))
MSOP applicability is discussed under the PTE of the Entire Source After Issuance of the MSOP section of this document.

326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset)
PSD and Emission Offset applicability is discussed under the PTE of the Entire Source After Issuance of the MSOP section of this document.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The operation of this source will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, LaPorte, or Lawrenceburg Township, Dearborn County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.

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 this permit:

1. 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.
2. 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)
The source is subject to the requirements of 326 IAC 6-4, because the paved roads have the potential to emit fugitive particulate emissions. 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 the source has potential fugitive particulate emissions of less than twenty-five (25) tons per year.

326 IAC 6.5 (Particulate Matter Limitations Except Lake County)
Pursuant to 326 IAC 6.5-1-1(a), this source (located in Boone County) is not subject to the requirements of 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 (Particulate Matter Limitations for Lake County)
Pursuant to 326 IAC 6.8-1-1(a), this source (located in Boone County) is not subject to the requirements of 326 IAC 6.8 because it is not located in Lake County.

326 IAC 6.8 (Lake County: Fugitive Particulate Matter)
Pursuant to 326 IAC 6.8-10-1, this source (located in Boone County) is not subject to the requirements of 326 IAC 6.8-10 because it is not located in Lake County.
State rule applicability for this source has been reviewed as follows:

**Boiler (B-1)**

**326 IAC 6-2-1 (Particulate Emission Limitations for Sources of Indirect Heating)**
The boiler is not subject to 326 IAC 6-2-4, since the emission limitation under another applicable rule (40 CFR 60, Subpart Dc) prevails.

**326 IAC 7-1.1 Sulfur Dioxide Emission Limitations**
This emission unit is not subject to 326 IAC 7-1.1 because it has a potential to emit (or limited potential to emit) sulfur dioxide (SO2) of less than 25 tons per year or 10 pounds per hour.

**326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)**
Even though, this boiler was constructed after January 1, 1980, it is not subject to the requirements of 326 IAC 8-1-6 because its unlimited VOC potential emissions are less than twenty-five (25) tons per year.

**326 IAC 9-1 (Carbon Monoxide Emission Limits)**
The requirements of 326 IAC 9-1 do not apply to the boiler, because this source does not operate a catalyst regeneration petroleum cracking system or a petroleum fluid coker, grey iron cupola, blast furnace, basic oxygen steel furnace, or other ferrous metal smelting equipment.

**Starch Silo (SS)**

**326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)**
Pursuant to 326 IAC 6-3-1(b)(12), the silo is not subject to the requirements of 326 IAC 6-3, since it is a manufacturing process with potential emissions less than 0.551 pounds per hour.

**Pre-print machine (PPM)**

**326 IAC 6-2-1 (Particulate Emission Limitations for Sources of Indirect Heating)**
Pursuant to 326 IAC 6-2-1, the pre-print machine is not subject to the requirements of 326 IAC 6-2, since it is not a source of indirect heating.

**326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)**
Pursuant to 326 IAC 6-3-1(b)(12), the pre-print machine is not subject to the requirements of 326 IAC 6-3, since it is a manufacturing process with potential emissions less than 0.551 lbs/hour.

**326 IAC 7-1.1 Sulfur Dioxide Emission Limitations**
This emission unit is not subject to 326 IAC 7-1.1 because it has a potential to emit (or limited potential to emit) sulfur dioxide (SO2) of less than 25 tons per year or 10 pounds per hour.

**326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)**
Even though, this facility was constructed after January 1, 1980, it is not subject to the requirements of 326 IAC 8-1-6 because its unlimited VOC potential emissions are less than twenty-five (25) tons per year.

**326 IAC 9-1 (Carbon Monoxide Emission Limits)**
The requirements of 326 IAC 9-1 do not apply to the pre-print machine, because this source does not operate a catalyst regeneration petroleum cracking system or a petroleum fluid coker, grey iron cupola, blast furnace, basic oxygen steel furnace, or other ferrous metal smelting equipment.
326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Categories)
The requirements of 326 IAC 10-3 do not apply to the pre-print machine, since this unit is not a blast furnace gas-fired boiler, a Portland cement kiln, or a facility specifically listed under 326 IAC 10-3-1(a)(2).

Printing, glueing, and cleaning operations (RDC-1,2, FFG-1,2,3,4, Lam)

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
Even though, these units were constructed after January 1, 1980, they are not subject to the requirements of 326 IAC 8-1-6 because each units’ unlimited VOC potential emissions are less than twenty-five (25) tons per year.

Abrasive blasting/roll cleaner (ARCS)

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
Even though, this parts washer was constructed after January 1, 1980, it is not subject to the requirements of 326 IAC 8-1-6 because its unlimited VOC potential emissions are less than twenty-five (25) tons per year.

326 IAC 8-3 (Organic Solvent Degreasing Operations)
Pursuant to 326 IAC 8-3 (Organic Solvent Degreasing Operations), the cold cleaner degreasing operation is subject to the requirements of 326 IAC 8-3-2 (Cold cleaner degreaser control equipment) and 326 IAC 8-3-8 (Material requirements for cold cleaner degreasers), since the operation meets the definition of a cold cleaner degreaser under 326 IAC 1-2-18.5 constructed after July 1, 1990, utilizes an organic solvent containing volatile organic compounds (VOCs) (as defined by 326 IAC 1-2-90), is not required to comply with 326 IAC 20-6-1 that incorporates by reference 40 CFR 63, Subpart T (National Emissions Standards for Hazardous Air Pollutants for Halogenated Solvent Cleaning), and uses a solvent that contain more than one percent (1%) of VOC by weight. The source shall meet the material requirements for cold cleaning degreasers specified in 326 IAC 8-3-8(b) and record keeping requirements specified in 326 IAC 8-3-8(c) and (d) of this rule.

Scrap handling system (CORR, FDBC-1, FG-1, CYC, IES-6)

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(a), the requirements of 326 IAC 6-3-2 are applicable to the roll cleaner, since it is a manufacturing process not exempted from this rule under 326 IAC 6-3-1(b) and is not subject to a particulate matter limitation that is as stringent as or more stringent than the particulate limitation established in this rule as specified in 326 IAC 6-3-1(c).

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the roll cleaner shall not exceed 0.551 pounds per hour when operating at a process weight rate of 60 pounds per hour.

The dust collector shall be in operation at all times the roll cleaner is in operation, in order to comply with this limit.

Parts washer (PW)

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
Even though, this parts washer was constructed after January 1, 1980, it is not subject to the requirements of 326 IAC 8-1-6 because its unlimited VOC potential emissions are less than twenty-five (25) tons per year.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(a), the requirements of 326 IAC 6-3-2 are applicable to the scrap handling system, since it is a manufacturing process not exempted from this rule under 326 IAC 6-3-1(b) and is not subject to a particulate matter limitation that is as stringent as or more stringent than the particulate limitation established in this rule as specified in 326 IAC 6-3-1(c).

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the scrap handling system shall not exceed 17.625 pounds per hour when operating at a process weight rate of 69.35 tons per hour. The pound per hour limitation was calculated with the following equation:
Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

\[ E = 55.0 \times P^{0.11} - 40 \]

where \( E \) = rate of emission in pounds per hour; and

\( P \) = process weight rate in tons per hour

<table>
<thead>
<tr>
<th>Process / Emission Unit</th>
<th>P (ton/hr)</th>
<th>E (lb/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scrap handling system</td>
<td>69.35</td>
<td>17.625</td>
</tr>
</tbody>
</table>

Based on calculations, the cyclone is needed to comply with this limit.

### Compliance Determination and Monitoring Requirements

(a) The Compliance Determination Requirements applicable to this source are as follows:

**Testing Requirements:**

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Control Device</th>
<th>Timeframe for Testing or Date of Initial Valid Demonstration</th>
<th>Pollutant/Parameter</th>
<th>Frequency of Testing</th>
<th>Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scrap handling system</td>
<td>Cyclone</td>
<td>180*</td>
<td>PM/PM10/PM2.5</td>
<td>Every 5 years</td>
<td>326 IAC 6-3-2</td>
</tr>
</tbody>
</table>

*No later than 180 days from the issuance of this permit.

In order to assure that the source maintains its MSOP status under 326 IAC 2-6.1, the integral cyclone for the scrap handling system control shall be in operation and control emissions from the scrap handling system at all times the scrap handling system is in operation.

Compliance with this condition, combined with the potential to emit PM from all other emission units at the source, shall assure the PM emissions from the entire source are less than 100 tons per twelve (12) consecutive month period.

(b) The Compliance Monitoring Requirements applicable to this source are as follows:

<table>
<thead>
<tr>
<th>Control Device</th>
<th>Type of Parametric Monitoring</th>
<th>Frequency</th>
<th>Range or Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust collector (DC-2)</td>
<td>Visible emission notations</td>
<td>Daily</td>
<td>Verify whether emissions are normal or abnormal</td>
</tr>
</tbody>
</table>

These monitoring conditions are necessary because the dust collector for the abrasive roll cleaner must operate properly to assure compliance with 326 IAC 6-3-2 for the abrasive roll cleaner.

### Conclusion and Recommendation

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 July 5, 2019.

The construction and operation of this source shall be subject to the conditions of the attached proposed New Source Construction and MSOP No. 011-41635-00070. The staff recommends to the Commissioner that the New Source Construction and MSOP be approved.
(a) If you have any questions regarding this permit, please contact Jared Karban, 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) 233-4230 or (800) 451-6027, and ask for Jared Karban or (317) 233-4230.

(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

#### PTE Summary

**Company Name:** DS Smith Packaging - Lebanon  
**Source Address:** 800 Edwards Drive, Lebanon, IN 46052  
**Permit Number:** 011-41635-00070  
**Reviewer:** Jared Karban

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Unit ID</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
<th>Worst Single HAP</th>
<th>Total HAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiler</td>
<td>B-1</td>
<td>0.22</td>
<td>0.87</td>
<td>0.87</td>
<td>0.07</td>
<td>11.50</td>
<td>0.63</td>
<td>9.66</td>
<td>0.21</td>
<td>0.22</td>
</tr>
<tr>
<td>Starch silo</td>
<td>SS</td>
<td>0.35</td>
<td>0.35</td>
<td>0.35</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pre-print machine (Printing press)</td>
<td>PPM</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>11.40</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pre-print machine (Burner)</td>
<td>PPM</td>
<td>0.08</td>
<td>0.04</td>
<td>0.04</td>
<td>0.02</td>
<td>4.11</td>
<td>0.23</td>
<td>3.45</td>
<td>0.01</td>
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</tr>
<tr>
<td>Printing operations</td>
<td>RDC-1,2, FFG-1,2,3,4</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>16.74</td>
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</tr>
<tr>
<td>Glueing operations</td>
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<td>Cleaning operations</td>
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<td>-</td>
<td>3.84</td>
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<tr>
<td>Automatan laminator</td>
<td>Lam</td>
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<td>15.58</td>
<td>-</td>
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<tr>
<td>Abrasive blasting</td>
<td>ARCS</td>
<td>2.63</td>
<td>2.63</td>
<td>2.63</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>Parts washer</td>
<td>PW</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>7.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.01</td>
</tr>
<tr>
<td>Scrap handling system</td>
<td>CYC, IES-6, FDBC-1, FG-1, CORR</td>
<td>82.01</td>
<td>82.01</td>
<td>82.01</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Paved roads</td>
<td>-</td>
<td>13.02</td>
<td>2.60</td>
<td>0.64</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>98.31</strong></td>
<td><strong>88.51</strong></td>
<td><strong>86.55</strong></td>
<td><strong>0.09</strong></td>
<td><strong>15.61</strong></td>
<td><strong>56.09</strong></td>
<td><strong>13.11</strong></td>
<td><strong>1.12</strong></td>
<td><strong>1.70</strong></td>
</tr>
</tbody>
</table>
## Appendix A: Emissions Calculations

**Natural Gas Combustion Only**

*26.78 MMBTU/HR Boiler (B-1)*

**Company Name:** DS Smith Packaging - Lebanon  
**Source Address:** 800 Edwards Drive, Lebanon, IN 46052  
**Permit Number:** 011-41635-00070  
**Reviewer:** Jared Karban

### Natural Gas Combustion

- **Company Name:** DS Smith Packaging - Lebanon  
- **Source Address:** 800 Edwards Drive, Lebanon, IN 46052  
- **Permit Number:** 011-41635-00070  
- **Reviewer:** Jared Karban

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM*</th>
<th>PM10*</th>
<th>direct PM2.5*</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMCF</td>
<td>1.9</td>
<td>7.6</td>
<td>7.6</td>
<td>0.6</td>
<td>100</td>
<td>5.5</td>
<td>84</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>0.22</td>
<td>0.87</td>
<td>0.87</td>
<td>0.07</td>
<td>11.50</td>
<td>0.63</td>
<td>9.66</td>
</tr>
</tbody>
</table>

*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)

- **Organics**
  - Benzene: 2.1E-03  
  - Dichlorobenzene: 1.2E-03  
  - Formaldehyde: 7.5E-02  
  - Hexane: 1.8E-00  
  - Toluene: 3.4E-03  
  - Total - Organics: 3.9E-04

- **Metals**
  - Lead: 5.0E-04  
  - Cadmium: 1.1E-03  
  - Chromium: 1.4E-03  
  - Manganese: 3.8E-04  
  - Nickel: 2.1E-03  
  - Total - Metals: 6.3E-04

Methodology is the same as above. The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.
Appendix A: Emission Calculations  
Silo Emissions

Company Name: DS Smith Packaging - Lebanon  
Source Address: 800 Edwards Drive, Lebanon, IN 46052  
Permit Number: 011-41635-00070  
Reviewer: Jared Karban

<table>
<thead>
<tr>
<th>Emissions</th>
<th>Silo Throughput (lb/year)(^1)</th>
<th>Starch Loading Emission Factor (lb/ton)(^2)</th>
<th>PM Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(lb/hr)</td>
</tr>
<tr>
<td>Uncontrolled Emissions</td>
<td>10,000,000</td>
<td>0.14</td>
<td>0.08</td>
</tr>
<tr>
<td>Controlled Emissions</td>
<td></td>
<td>0.0014</td>
<td>0.0008</td>
</tr>
</tbody>
</table>

1. Silo Throughput (lb/year) was estimated by scaling up starch usages from DS Smith's Reading facility by a factor of 4 and applying an additional 25% conservative growth factor. DS Smith's Lebanon, IN facility will be approximately four times the capacity of the Reading, PA facility.
2. Starch Loading Emission Factor (lb/ton) from EPA AP-42, Chapter 9, Section 9, Table 9.9.7-1
3. PM Emissions (lb/year) = Silo throughput (lbs) / (2,000 lbs/ton) * Emissions factor (lb/ton)
4. PM=PM2.5
Appendix A: Emission Calculations

Company Name: DS Smith Packaging - Lebanon
Source Address: 800 Edwards Drive, Lebanon, IN 46052
Permit Number: 011-4003-00270
Reviewer: Jared Karban

Ink and Cleaner Usage

<table>
<thead>
<tr>
<th>Product</th>
<th>Usage(^1)</th>
<th>Usage(^2)</th>
<th>Average VOC Content</th>
<th>VOC Emissions (lb/hr)(^3)</th>
<th>VOC Emissions (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>gal/year</td>
<td>lb/year</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ink &amp; Extender</td>
<td>820,000</td>
<td>-</td>
<td>2.64%</td>
<td>1.45</td>
<td>0.09</td>
</tr>
<tr>
<td>pH Adjuster</td>
<td>3,000</td>
<td>-</td>
<td>9%</td>
<td>0.001</td>
<td>0.000</td>
</tr>
<tr>
<td>Diethylene Glycol</td>
<td>240</td>
<td>-</td>
<td>9%</td>
<td>0.0025</td>
<td>0.011</td>
</tr>
<tr>
<td>Detergent</td>
<td>8,250</td>
<td>0.18</td>
<td>0.17</td>
<td>0.74</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td>2.80</td>
<td>1.40</td>
</tr>
</tbody>
</table>

\(^1\) Product usages based on estimated usages for a similar machine at a similar DS Smith facility.
\(^2\) Average VOC Content (%) from Certified Product Data Sheets, provided by Flint Group.
\(^3\) VOC Emissions (lb/hr) = Usage (lb/year) * Average VOC Content (%) / Hours of Operation (hours/year)

Natural gas-fired burner

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM(^*)</th>
<th>PM(^{10})</th>
<th>direct PM(^{2.5})</th>
<th>SO(_2)</th>
<th>NO(_x)</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMCF</td>
<td>1.9</td>
<td>7.6</td>
<td>7.6</td>
<td>0.6</td>
<td>100</td>
<td>5.5</td>
<td>84</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>0.04</td>
<td>0.06</td>
<td>0.11</td>
<td>0.23</td>
<td>0.48</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PM emission factor is filterable PM only. PM\(^{10}\) emission factor is filterable and condensable PM\(^{10}\) combined.
PM\(^{2.5}\) emission factor is filterable and condensable PM\(^{2.5}\) combined.
**Emission Factors for NO\(_x\): Uncontrolled = 100, Low NO\(_x\) Burner = 50, Low NO\(_x\) Burner/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

Emission (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Hazardous Air Pollutants (HAPs)

**Additional HAPs emission factors are available in AP-42, Chapter 1.4.**

*PM emission factor is filterable PM only. PM\(^{10}\) emission factor is filterable and condensable PM\(^{10}\) combined.** PM\(^{2.5}\) emission factor is filterable and condensable PM\(^{2.5}\) combined.

The five highest organic and metal HAPs emission factors are provided above.

**Worst HAP**

Total 0.01
### Appendix A: Emission Calculations

#### Emissions from Ink Usage

Company Name: DS Smith Packaging - Lebanon  
Source Address: 800 Edwards Drive, Lebanon, IN 46052  
Permit Number: 011-41635-00070  
Reviewer: Jared Karban

#### Reading, PA Hours of Operation

<table>
<thead>
<tr>
<th></th>
<th>Days/Week</th>
<th>Weeks/Year</th>
<th>Days/Week</th>
<th>Weeks/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Day</td>
<td>24</td>
<td>52</td>
<td>24</td>
<td>52</td>
</tr>
<tr>
<td>Saturdays</td>
<td>24</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Saturdays Worked Per Year</td>
<td></td>
<td></td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Annual1</td>
<td></td>
<td></td>
<td>6,864</td>
<td></td>
</tr>
</tbody>
</table>

1. Annual Ink product usages (lb/year) from Reading, PA is based on total purchases from April 1, 2016 to March 31, 2017.
2. Projected Actual Ink usage (lb/year) were estimated by scaling up actual ink usages from DS Smith's Reading facility by a factor of 4. DS Smith's Lebanon, IN facility will have approximately four times the capacity of Reading, PA. 
3. Projected Potential Annual Usage (lb/year) was estimated by scaling up the projected actual annual usage from 6,864 hours/year to 8,760 hours/year.

<table>
<thead>
<tr>
<th>DS Smith Facility</th>
<th>Ink Usage (lb/year)1,2,3, Projected Potential Annual Usage (Lebanon, IN) based on 8,760 hours/year</th>
<th>VOC Emissions4,5</th>
<th>Worst case VOC Concentration (lb VOC/lb ink)4</th>
<th>HAP Emissions4,5</th>
<th>HAP Concentration (lb HAP/lb ink)4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,268,383</td>
<td>33,485.30</td>
<td>16.74</td>
<td>0.0264</td>
<td>2,917.28</td>
</tr>
</tbody>
</table>

1. Annual Ink product usages (lb/year) from Reading, PA is based on total purchases from April 1, 2016 to March 31, 2017.
2. Projected Actual Ink usage (lb/year) were estimated by scaling up actual ink usages from DS Smith's Reading facility by a factor of 4. DS Smith's Lebanon, IN facility will have approximately four times the capacity of Reading, PA. 
3. Projected Potential Annual Usage (lb/year) was estimated by scaling up the projected actual annual usage from 6,864 hours/year to 8,760 hours/year.

#### HAP Speciation

<table>
<thead>
<tr>
<th>HAP</th>
<th>Average HAP Concentration from Ink Products (%)4</th>
<th>Potential HAP Emissions (tons/year)4</th>
<th>Single worst HAP:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>0.35%</td>
<td>5.16E-03</td>
<td>1.12E+00</td>
</tr>
<tr>
<td>Acrylic Acid</td>
<td>12.77%</td>
<td>1.86E-01</td>
<td></td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>0.0029%</td>
<td>4.19E-05</td>
<td></td>
</tr>
<tr>
<td>Ethyl Acrylate</td>
<td>0.65%</td>
<td>9.51E-03</td>
<td></td>
</tr>
<tr>
<td>Ethyl Benzene</td>
<td>0.012%</td>
<td>1.70E-04</td>
<td></td>
</tr>
<tr>
<td>Ethylene Glycol</td>
<td>5.32%</td>
<td>7.76E-02</td>
<td></td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>0.063%</td>
<td>9.26E-04</td>
<td></td>
</tr>
<tr>
<td>Glycol Ethers</td>
<td>76.61%</td>
<td>1.12E+00</td>
<td></td>
</tr>
<tr>
<td>Methyl Methacrylate</td>
<td>1.69%</td>
<td>2.48E-02</td>
<td></td>
</tr>
<tr>
<td>Styrene</td>
<td>2.34%</td>
<td>3.41E-02</td>
<td></td>
</tr>
<tr>
<td>Xylene</td>
<td>0.0026%</td>
<td>3.86E-05</td>
<td></td>
</tr>
<tr>
<td>Unspeicated HAPs</td>
<td>0.19%</td>
<td>2.74E-03</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>1.46</td>
<td></td>
</tr>
</tbody>
</table>

1. Average HAP concentration (%): Total HAP Emissions (tons/year) * Average HAP Concentration (%)
2. Projected Actual Ink usage (lb/year) were estimated by scaling up actual ink usages from DS Smith's Reading facility by a factor of 4. DS Smith's Lebanon, IN facility will have approximately four times the capacity of Reading, PA. 
3. Projected Potential Annual Usage (lb/year) was estimated by scaling up the projected actual annual usage from 6,864 hours/year to 8,760 hours/year.

4. VOC and HAP emissions is provided by DS Smith's ink supplier, Flint Group. Actual emissions represent ink usage from April 1, 2016 to March 31, 2017.
5. Projected Actual VOC Emissions (lb/year) for Lebanon, IN = Projected Actual Annual Ink Usage (lb/year) * Average VOC Concentration (lb VOC/lb ink)
6. Average VOC/HAP Concentration (lb/lb ink) = VOC/HAP Emissions (lb/year) / Ink Usage (lb/year)
7. Average HAP Concentrations (%): Total HAP Emissions (tons/year) * Average HAP Concentration (%)
8. Projected HAP Emissions (tons/year) = Total HAP Emissions (tons/year) * Average HAP Concentration (%)
## Appendix A: Emission Calculations
### Emissions from Glue Usage

**Company Name:** DS Smith Packaging - Lebanon  
**Source Address:** 800 Edwards Drive, Lebanon, IN 46052  
**Permit Number:** 011-41635-00070  
**Reviewer:** Jared Karban

### 2018 Throughput and Usage

<table>
<thead>
<tr>
<th>Machine</th>
<th>Product</th>
<th>Roanoke, VA Facility</th>
<th>Lebanon, IN Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2018 Throughput (sf/year)</td>
<td>2018 Usage (lb/year)</td>
</tr>
<tr>
<td>Automatan Laminator</td>
<td>2124X-Automatan</td>
<td>107,476,713.00</td>
<td>157,488.00</td>
</tr>
<tr>
<td>Flexo Folder Gluers/Folder Gluers</td>
<td>4000 Adhesive</td>
<td>64,899,910.00</td>
<td>20,406.00</td>
</tr>
</tbody>
</table>

### VOC Glue Emissions

<table>
<thead>
<tr>
<th>Machine</th>
<th>Product</th>
<th>Usage (lb/year)</th>
<th>VOC Content (%)</th>
<th>Hours of Operation (hours/year)</th>
<th>Actual VOC Emissions (lb/hr)</th>
<th>Potential VOC Emissions (ton/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatan Laminator</td>
<td>2124X-Automatan</td>
<td>2,442,203.46</td>
<td>1.00%</td>
<td>6,864</td>
<td>3.558</td>
<td>15.584</td>
</tr>
<tr>
<td>Flexo Folder Gluers/Folder Gluers</td>
<td>4000 Adhesive</td>
<td>262,018.85</td>
<td>0.40%</td>
<td>6,864</td>
<td>0.153</td>
<td>0.669</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>2,704,222.31</strong></td>
<td>--</td>
<td>--</td>
<td><strong>3.71</strong></td>
<td><strong>16.25</strong></td>
</tr>
</tbody>
</table>

1. Estimated glue usage is scaled up from 2018 usages from DS Smith’s Roanoke facility, since this facility operates similar equipment with the same throughput rates. The total glue usage is apportioned to assume 2/3 is used at the laminator and 1/3 is used at the flexo folder gluers or folder gluers.
2. VOC Content (%) is based on data in SDS.
3. Actual VOC Emissions (lb/hr) = Glue Usage (lb/year) * VOC Content (%) / Hours of Operation in 2018 (hours/year)
4. Actual VOC Emissions (tons/year) = Actual VOC Emissions (lb/hr) * Hours of Operation (hours/year) / 2,000 lb/ton
5. Potential VOC Emissions (tons/year) were estimated by scaling up actual VOC emissions from 6,864 hours/year to 8,760 hours/year.
Appendix A: Emission Calculations
Emissions from Cleaning Products

Company Name: DS Smith Packaging - Lebanon
Source Address: 800 Edwards Drive, Lebanon, IN 46052
Permit Number: 011-41635-00070
Reviewer: Jared Karban

### VOC Emissions

<table>
<thead>
<tr>
<th>Product</th>
<th>Projected Cleaner Usage (gal/year)</th>
<th>Density (lb/gal)²</th>
<th>Projected Cleaner Usage (lb/year)³</th>
<th>VOC Concentration (%)²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrochem KJ 101 Cleaner</td>
<td>20,000</td>
<td>0.16</td>
<td>3,171</td>
<td>100%</td>
</tr>
<tr>
<td>Big Red PG</td>
<td>20,000</td>
<td>11.259</td>
<td>225,180</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>40,000</td>
<td>--</td>
<td>228,351</td>
<td>--</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>Potential VOC Emissions (lb/year)³</th>
<th>(lb/year)</th>
<th>(ton/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrochem KJ 101 Cleaner</td>
<td>3,170.91</td>
<td>1.59</td>
<td></td>
</tr>
<tr>
<td>Big Red PG</td>
<td>4,503.60</td>
<td>2.25</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7,674.51</td>
<td>3.84</td>
<td></td>
</tr>
</tbody>
</table>

1. Amount of Cleaner Purchased is estimated at 20,000 gal/year for each cleaner.
2. Information provided from data in SDS
   VOC Density of Arrochem KJ 101 Cleaner is 19 g VOC/L. This value is converted to lb/gal and the VOC Concentration is assumed to be 100%.
3. Projected Cleaner Usage (lb/year) = Projected Cleaner Usage (gal/year) * Density (lb/gal)
4. VOC Emissions (lb/year) = Projected Cleaner Usage (lb/year) * VOC Concentration (%)
Appendix A: Emission Calculations

Abrasive Blasting - Confined

Company Name: DS Smith Packaging - Lebanon
Source Address: 800 Edwards Drive, Lebanon, IN 46052
Permit Number: 011-41635-00070
Reviewer: Jared Karban

Table 1 - Emission Factors for Abrasives

<table>
<thead>
<tr>
<th>Abrasive</th>
<th>lb PM / lb abrasive</th>
<th>lb PM10 / lb PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>0.047</td>
<td>0.70</td>
</tr>
<tr>
<td>Grit</td>
<td>0.010</td>
<td>0.70</td>
</tr>
<tr>
<td>Steel Shot</td>
<td>0.004</td>
<td>0.86</td>
</tr>
<tr>
<td>Other</td>
<td>0.010</td>
<td></td>
</tr>
</tbody>
</table>

Potential to Emit (before control) = EF x FR x (1 - w/200) x N

PM = PM10 = PM2.5

Potential to Emit (before control) = 0.60 lb/hr
= 14.40 lb/day
= 2.63 ton/yr

Potential to Emit (after control) = [Potential to Emit (before control)] x [1 - control efficiency]

Potential to Emit (after control) = 0.01 lb/hr
= 0.14 lb/day
= 0.026 ton/yr

METHODOLOGY

PM2.5 emissions assumed equal to PM10 emissions.


Potential to Emit (before control) = EF x FR x (1 - w/200) x N

Potential to Emit (tons/year) = [Potential to Emit (lbs/hour)] x [8760 hours/year] x [ton/2000 lbs]
## Appendix A: Emission Calculations

### Degreaser

**Company Name:** DS Smith Packaging - Lebanon  
**Source Address:** 800 Edwards Drive, Lebanon, IN 46052  
**Permit Number:** 011-41635-00070  
**Reviewer:** Jared Karban

<table>
<thead>
<tr>
<th>Degreasing Operations</th>
<th>Solvent Used</th>
<th>Maximum Usage (gallons/year)</th>
<th>Density (lbs/gallon)</th>
<th>Weight % VOC</th>
<th>VOC Emissions (ton/yr)</th>
<th>Weight % HAPs</th>
<th>HAPs Emissions (ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parts Washer</td>
<td>Mineral Spirits</td>
<td>2000</td>
<td>7.00</td>
<td>100%</td>
<td>7.00</td>
<td>0.20%</td>
<td>1.40E-02</td>
</tr>
</tbody>
</table>

**Methodology**

VOC Emissions (tons/yr) = \( \text{[Maximum Usage (gallons/yr)] * [Density (lbs/gallon)] * [Weight % VOC] / [2000 lbs/ton]} \)

HAP Emissions (tons/yr) = \( \text{[Maximum Usage (gallons/yr)] * [Density (lbs/gallon)] * [Weight % Toluene] / [2000 lbs/ton]} \)
### Scrap Handling System Emissions

**Company Name:** DS Smith Packaging - Lebanon  
**Source Address:** 800 Edwards Drive, Lebanon, IN 46052  
**Permit Number:** 011-41635-00070  
**Reviewer:** Jared Karban

<table>
<thead>
<tr>
<th>Cardboard Thickness (in)</th>
<th>Cardboard Density (lb/in³)</th>
<th>Cardboard Thickness (ft³/yr)</th>
<th>Throughput (in³/yr)</th>
<th>EF (lb/yr)</th>
<th>PM (tpy)</th>
<th>PM Control efficiency (%)</th>
<th>PM Controlled (tpy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25</td>
<td>0.135</td>
<td>52,083,333.33</td>
<td>12,150,000,000</td>
<td>0.00009</td>
<td>1,093,500.00</td>
<td>85.00%</td>
<td>82,012.50</td>
</tr>
</tbody>
</table>

1. Estimated amount of Annual Throughput (ft²/year)  
2. Emission Factor (lb PM/lb material) from a stack test at Flutes, Inc. in 2007. Results from test are 0.00009, 0.00006, and 0.00006. The highest value is used as the most conservative emission factor.  
3. Uncontrolled PM Emissions (lb/year) = Annual Throughput (ft²/year) * Emission Factor (lb PM/MSF) / 1,000  
   Note: All emissions are exhausted indoors.

E = 17.62542659
### Paved Roads at Industrial Site

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

#### Vehicle Information

<table>
<thead>
<tr>
<th>Type</th>
<th>Maximum number of vehicles per day</th>
<th>Number of one-way trips per day per vehicle</th>
<th>Maximum trips per day (trip/day)</th>
<th>Maximum Weight of Loaded Vehicle (tons/trip)</th>
<th>Total Weight driven per day (ton/day)</th>
<th>Maximum one-way distance (feet/trip)</th>
<th>Maximum one-way miles (miles/day)</th>
<th>Maximum one-way miles (miles/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle (entering plant) (one-way trip)</td>
<td>50.0</td>
<td>1.0</td>
<td>50.0</td>
<td>40.0</td>
<td>2000.0</td>
<td>1100</td>
<td>20.8</td>
<td>7604.2</td>
</tr>
<tr>
<td>Vehicle (leaving plant) (one-way trip)</td>
<td>50.0</td>
<td>1.0</td>
<td>50.0</td>
<td>40.0</td>
<td>2000.0</td>
<td>1100</td>
<td>20.8</td>
<td>7604.2</td>
</tr>
</tbody>
</table>

#### Average Vehicle Weight Per Trip

\[
\text{Average} \\ \text{Vehicle} \\ \text{Weight} \\ \text{Per} \\ \text{Trip} = \frac{\text{Total Weight driven per day (ton/day)}}{\text{Maximum trips per day (trip/day)}} = \frac{4000.0}{20.8} = 190.1 \times 10^{-3} \text{ tons/trip}
\]

#### Average Miles Per Trip

\[
\text{Average} \\ \text{Miles} \\ \text{Per} \\ \text{Trip} = \frac{\text{Maximum one-way miles (miles/day)}}{\text{Maximum trips per day (trip/day)}} = \frac{7604.2}{20.8} = 365 \text{ miles/trip}
\]

#### Unmitigated Emission Factor, \( E_u \) = \([k \times (sL)^{0.91} \times (W)^{1.02}]\) (Equation 1 from AP-42 13.2.1)

- \( k = 0.011 \) (lb/VMT) = particle size multiplier (AP-42 Table 13.2.1-1)
- \( W = 40.0 \) (tons) = average vehicle weight
- \( sL = 9.7 \) (g/m²) = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3)

#### Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, \( E_{ext} = E \times \left[1 - \frac{p}{4N}\right] \) (Equation 2 from AP-42 13.2.1)

- \( p = 125 \) days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
- \( N = 365 \) days per year

#### Process

<table>
<thead>
<tr>
<th>Process</th>
<th>Mitigated PTE of PM (Before Control) (tons/yr)</th>
<th>Mitigated PTE of PM10 (Before Control) (tons/yr)</th>
<th>Mitigated PTE of PM2.5 (Before Control) (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle (entering plant) (one-way trip)</td>
<td>6.51</td>
<td>1.30</td>
<td>0.32</td>
</tr>
<tr>
<td>Vehicle (leaving plant) (one-way trip)</td>
<td>6.51</td>
<td>1.30</td>
<td>0.32</td>
</tr>
</tbody>
</table>

#### Totals

| | Mitigated PTE of PM (Before Control) (tons/yr) | Mitigated PTE of PM10 (Before Control) (tons/yr) | Mitigated PTE of PM2.5 (Before Control) (tons/yr) |
| |-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| | 13.02 | 2.60 | 0.64 |

#### Methodology

- Total Weight driven per day (ton/day) = (Maximum Weight of Loaded Vehicle (tons/trip)) \* (Maximum trips per day (trip/day))
- Maximum one-way distance (feet/trip) = (Maximum one-way distance (miles/trip)) \* (5280 ft/mile)
- Maximum one-way distance (miles/day) = (Maximum trips per day (trip/day)) \* (Maximum one-way distance (miles/trip))
- Average Vehicle Weight Per Trip (ton/trip) = (Maximum Weight of Loaded Vehicle (tons/trip)) / (Maximum trips per day (trip/day))
- Average Vehicle Weight Per Trip (ton/trip) = (Maximum Weight of Loaded Vehicle (tons/trip)) / (Maximum trips per day (trip/day))
- Unmitigated Emission Factor (lb/mile) = (Maximum one-way miles (miles/yr)) \* (Unmitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)
- Mitigated Emission Factor (lb/mile) = (Maximum one-way miles (miles/yr)) \* (Mitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)
- Mitigated PTE (tons/yr) = (Mitigated PTE (Before Control) (tons/yr)) \* (1 - Dust Control Efficiency)
## Appendix A: Emission Calculations

### List of Equipment

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Equipment ID</th>
<th>Control Device</th>
<th>Control Device ID</th>
<th>Stack ID</th>
<th>Ink</th>
<th>Glue</th>
<th>Cleaner</th>
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</thead>
<tbody>
<tr>
<td>26.78 MMBtu/hr Natural Gas-Fired Boiler</td>
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<td>--</td>
<td>BP-1</td>
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<tr>
<td>Starch Silo/Starch Kitchen</td>
<td>SS</td>
<td>Baghouse</td>
<td>BH-1</td>
<td>SSP-1</td>
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<tr>
<td>Corrugator</td>
<td>Cor</td>
<td>Dust Collector</td>
<td>DC-1</td>
<td>EP-1</td>
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<td>Bobst FS Polyjoiner 400 Feeder</td>
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<td>Automatan Laminator</td>
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<td>Automatan Autostack</td>
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<td>Ducker Corpal Bundler</td>
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<tr>
<td>Signode ISB Bundle Strapper</td>
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<tr>
<td>Signode/VCS w/ Squaring Bundle Strapper</td>
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<td>Anilox Roll Cleaner</td>
<td>ARCS</td>
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<tr>
<td>Parts Washer</td>
<td>PW</td>
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<td>--</td>
<td>EP-1</td>
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## Appendix A: Emission Calculations

### Input Sheet

**Company Name:** DS Smith Packaging - Lebanon  
**Source Address:** 800 Edwards Drive, Lebanon, IN 46052  
**Permit Number:** 011-41635-00070  
**Reviewer:** Jared Karban

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<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Source</th>
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<tr>
<td><strong>Facility</strong></td>
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<tr>
<td>Actual Hours of Operation (hours/year)</td>
<td>6,864</td>
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<tr>
<td>Potential Hours of Operation (hours/year)</td>
<td>8,760</td>
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<tr>
<td>Annual Throughput (ft²/year)</td>
<td>2,500,000,000</td>
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<tr>
<td><strong>Boiler</strong></td>
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<td>Boiler Nameplate/Manufacturer Specifications</td>
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<tr>
<td>Boiler Heat Rating (MMBtu/hr)</td>
<td>26.78</td>
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</tr>
<tr>
<td>Boiler Hours of Operation (hours/year)</td>
<td>8,760</td>
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<tr>
<td><strong>Starch Silo/Transfer</strong></td>
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</tr>
<tr>
<td>Starch Purchased (lb/year)</td>
<td>10,000,000</td>
<td>Amount of starch purchased at Reading in 2017 * 4 (Size Factor) * 25% Growth Factor and scaled up to 10,000,000 lbs</td>
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<tr>
<td><strong>Flexo Printing Lines</strong></td>
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<tr>
<td>Ink Usage (lb/year)</td>
<td>See sheet</td>
<td>Ink Supplier (Flint Group) from Reading, PA</td>
</tr>
<tr>
<td>Ink VOC Emissions (lb/year)</td>
<td>See sheet</td>
<td>Ink Supplier (Flint Group) from Reading, PA</td>
</tr>
<tr>
<td>Ink HAP Emissions (lb/year)</td>
<td>See sheet</td>
<td>Ink Supplier (Flint Group) from Reading, PA</td>
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<td>Pre-print Machine Direct Fired Burner Heat Rating (MMBtu/hr)</td>
<td>9.57</td>
<td>Application from New Castle, PA</td>
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<td>Glue Usage (gal/year)</td>
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<td>Estimated from Roanoke, VA usage</td>
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<tr>
<td>Glue VOC Concentration (%)</td>
<td>See sheet</td>
<td>SDS</td>
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<td>Cleaner Usage (gal/year)</td>
<td>See sheet</td>
<td>Assumed value</td>
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<tr>
<td>Cleaner VOC Concentration (%)</td>
<td>See sheet</td>
<td>SDS</td>
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<td><strong>Corrugator</strong></td>
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<td>Cardboard Weight (lb)</td>
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<td>Assumed value</td>
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<td>Cardboard Thickness (in)</td>
<td>0.25</td>
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<tr>
<td>Blade Width (in)</td>
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<td><strong>Anilox Roll Cleaning (Abrasive Blasting)</strong></td>
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<td>ARMEX Anilox Roll Cleaning Formula Technical Data Sheet</td>
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<tr>
<td>Amount of Abrasive Used (lb/year)</td>
<td>525,600</td>
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<tr>
<td>PM10 Concentration (%)</td>
<td>10%</td>
<td>ARMEX Anilox Roll Cleaning Formula Technical Data Sheet</td>
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<tr>
<td>Control Efficiency (%)</td>
<td>99%</td>
<td>Assumed value</td>
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<td><strong>Parts Washer</strong></td>
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<tr>
<td>Amount of Solvent Used (gal/year)</td>
<td>2,000</td>
<td>Assumed value</td>
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<tr>
<td>Solvent Density (lb/gal)</td>
<td>6.7</td>
<td>SDS</td>
</tr>
<tr>
<td>VOC Concentration (%)</td>
<td>100%</td>
<td>SDS</td>
</tr>
</tbody>
</table>
September 26, 2019

Mr. Ron Holman
DS Smith Packaging - Lebanon
1300 Wilson Boulevard, Suite 1075
Arlington, Virginia 22209

Re: Public Notice
DS Smith Packaging - Lebanon
Permit Level: MSOP NSC (Minor PSD)
Permit Number: 011-41635-00070

Dear Mr. Holman:

Enclosed is a copy of your draft MSOP New Source Construction (Minor PSD), Technical Support Document, emission calculations, and the Public Notice.

The Public Notice period will begin the date the Notice is published on the IDEM Official Public Notice website. Publication has been requested and is expected within 2-3 business days. You may check the exact Public Notice begins and ends date here: https://www.in.gov/idem/5474.htm

Please note that as of April 17, 2019, IDEM is no longer required to publish the notice in a newspaper.

OAQ has submitted the draft permit package to the Lebanon Public Library, 104 East Washington Street in Lebanon, 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 Jared Karban, 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 3-4230 or dial (317) 233-4230.

Sincerely,

John F. Jackson

John F. Jackson
Permits Branch
Office of Air Quality

Enclosures

PN Applicant Cover Letter 4/12/19
September 26, 2019

To: Lebanon 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: DS Smith Packaging – Lebanon
Permit Number: 011-41635-00070

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
- 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 Smiddle-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 updated 4/2019
Notice of Public Comment

September 26, 2019
DS Smith Packaging - Lebanon
011-41635-00070

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 posted on IDEM’s Public Notice website at https://www.in.gov/idem/5474.htm.

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 4/12/2019
AFFECTED STATE NOTIFICATION OF PUBLIC COMMENT PERIOD
DRAFT INDIANA AIR PERMIT

September 26, 2019

A 30-day public comment period has been initiated for:

Permit Number:  011-41635-00070  
Applicant Name:  DS Smith Packaging - Lebanon  
Location:  Lebanon, Boone 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.

Affected States Notification 1/9/2017
Mail Code 61-53

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<td>Ron Holman D S Smith Packaging Lebanon 1300 Wilson Blvd Ste 1075 Arlington VA 22209 (Source CAATS)</td>
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<td>Commissioners Boone County Commissioners 116 West Washington Street Lebanon IN 46052 (Local Official)</td>
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<td>Daryl &amp; Lois Hoffman 7750 N. CR 75 E Lizton IN 46149 (Affected Party)</td>
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<td>Christine K. Brenk Kleinfelder, Inc. 9009 Perimeter Woods Dr, Ste H Charlotte NC 28216 (Consultant)</td>
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Total number of pieces Listed by Sender | Total number of Pieces Received at Post Office | Postmaster, Per (Name of Receiving employee) | 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 mail 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 insured and COD mail. See International Mail Manual for limitations of coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels. |

FACSIMILE OF PS Form 3877