



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

TO: Interested Parties / Applicant

DATE: July 1, 2008

RE: Packaging Corporation of America / 083-26587-00040

FROM: Matthew Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

## Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures  
FNPER-AM.dot12/3/07



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Chris Haynes  
Packaging Corporation of America  
408 East Saint Clair Street  
Vincennes, IN 47591

July 1, 2008

Re: Registration Notice-Only Change  
No. R083-26587-00040

Dear Chris Haynes:

Packaging Corporation of America was issued a Registration No. R083-12749-00040 on January 4, 2001, for a stationary linerboard and corrugated box manufacturing plant located at 408 East Saint Clair Street, Vincennes, IN. On May 23, 2008, the Office of Air Quality (OAQ) received an application from the source relating to the removal of one (1) boiler with a rating of 13.2 MMBtu/hr and the addition of a new boiler with a rating of 21.0 MMBtu/hr. The addition of these units to the registration is considered a notice-only change, since the potential emissions of regulated criteria pollutants and hazardous air pollutants are less than the ranges specified in 326 IAC 2-5.5-6(d)(10) and 326 IAC 2-5.5-6(d)(12), respectively. The uncontrolled/unlimited potential to emit of the entire source will continue to be within the threshold levels specified in 326 IAC 2-5.5-1(b)(1). No new state rules are applicable to this source. There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) or National Emission standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 20 and 40 CFR Part 61, 63) included in this notice-only change.

In addition, IDEM has begun implementing a new procedure and will no longer list the name or title of the Authorized Individual (AI) in registrations. Pursuant to 326 IAC 2-5.5-6, the registration is hereby revised as follows, with deleted language as ~~strikeouts~~ and new language appears as **bold** text:

1. A.2 Emission Units and Pollution Control Equipment Summary

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

- (a) ~~Two (2)~~ **One (1)** natural gas fired boilers **constructed in 1979**, designated as ~~BL1 and BL2~~, with ~~at an~~ input capacity of 13.2 MMBtu/hr ~~each~~ and **one (1) natural gas fired boiler constructed in 2008, designated as BL3, with an input capacity of 21.0 MMBtu/hr; both** exhausts to a stack designated as 001.
- (b) One (1) starch storage silo **constructed in 1997**, with a maximum storage capacity of 110,000 pounds, equipped with **a an integral** bin vent filtration system to aid in the reduction of starch lost from the pneumatic loading process, and exhausts to a stack designated as 003.
- (c) Five (5) flexographic printing presses, with a total maximum ink usage rate of 17.11 pounds per hour, a total maximum corrugated sheet rate of 18,000 pounds per hour, exhausts through the general ventilation system designated as 002 and maintains the following:
  1. One (1) flexographic press **constructed in 1995**, designated as 283, with a maximum line speed of 990 ft/min and a maximum printing width of 122 inches.

2. One (1) flexographic press **constructed in 1967**, designated as 262, with a maximum line speed of 1050 ft/min and a maximum printing width of 96 inches.
  3. One (1) flexographic press **constructed in 1976**, designated as 314, with a maximum line speed of 700 ft/min and a maximum printing width of 80 inches.
  4. One (1) flexographic press **constructed in 1971**, designated as 310, with a maximum line speed of 640 ft/min and a maximum printing width of 78 inches.
  5. One (1) flexographic press **constructed in 1975**, designated as 330, with a maximum line speed of 550 ft/min and a maximum printing width of 146 inches.
- (d) One (1) adhesive/glue application area **constructed in 1997**, with a maximum adhesive/glue usage rate of 18.3 pounds per hour, a maximum printed corrugated sheet rate of 17,100 pounds per hour and exhausts through the general ventilation system designated as 002.
- (e) One (1) wax application area **constructed in 1997**, with a maximum wax usage rate of 20,000 gallons per year, a maximum corrugated sheet rate of 1,800 pounds per hour and exhausts through the general ventilation system designated as 002.
- (f) One (1) scrap collection system, with a maximum paper rate of 2,400 pounds per hour, exhausts to a stack designated as 004 and consists of the following:
1. One (1) **integral** paper separation cyclone, which collects the scrap and conveys the paper to the baler, an air flow rate of 60,000 cfm and an overall efficiency of 99.9%; and
  2. One (1) baler **constructed in 1997**.
- (g) One (1) flexographic printing press **constructed in 1978**, designated as 320, with a maximum line speed of 833 ft/min and a maximum printing width of 106 inches.
2. ~~(2) Pursuant to 326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating Constructed After September 21, 1983), the particulate matter emissions from each of the two (2) natural gas fired boilers rated at 13.2 mMBtu/hr each, shall be limited to 0.56 lb/mMBtu.~~

#### Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]

##### D.1.1 Particulate [326 IAC 6-2-3]

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Pursuant to 326 IAC 6-2-3(d) (Particulate Emission Limitations for Sources of Indirect Heating: emission limitations for facilities specified in 326 IAC 6-2-1(b)), the particulate matter (PM) emissions from Boiler BL2 shall in no case exceed 0.8 pounds of particulate matter per million British thermal units heat input.

##### D.1.2 Particulate [326 IAC 6-2-2]

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Pursuant to 326 IAC 6-2-2 (Particulate Limitations for Sources of Indirect Heating), the particulate matter (PM) emissions from Boiler BL3 shall be limited to 0.435 pounds per MMBtu heat input.

This limitation is based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

where:

**Pt = Allowable Particulate Emission Limitation in pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input; and**

**Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. (Q = 13.2 + 21.0 = 34.2 MMBtu/hr)**

3. ~~(3) Pursuant to 326 IAC 6-3-2 (Process Operations) and 40 CFR 52 Subpart P~~
- ~~(a) The particulate matter (PM) from the starch silo loading/unloading area and the scrap collection system shall be limited to 1.39 lb/hr and 4.63 lb/hr, respectively, according to the following:~~
- ~~Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:~~
- $$E = 4.10 P^{0.67}$$
- ~~where E = rate of emission in pounds per hour and~~
- ~~P = process weight rate in tons per hour~~
- ~~(b) The cyclone shall be operated according to manufacturer's specifications at all times when the scrap paper circulation system (including the baler) is in operation.~~
- ~~(c) The filters used to prevent starch product loss, shall be in operation at all times when the silo is being loaded and unloaded.~~
- ~~(d) An inspection shall be performed each calendar quarter of all the filters. Defective filters shall be replaced. A record shall be kept of the results of the inspection and the number of filters replaced.~~
- ~~(e) In the event that a filter's failure has been observed:~~
- ~~(1) The affected compartments will be shut down immediately until the failed units have been replaced.~~
  - ~~(2) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.~~
  - ~~(3) Visible emission notations, of all exhaust going to the indoors and the atmosphere from the cyclone and filters, shall be performed once per working shift. A trained employee will record whether emissions are normal or abnormal.~~
  - ~~(4) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, 80% of the time, the process is in operation, not counting start up or shut down time.~~
  - ~~(5) In the case of batch or discontinuous operation, readings shall be taken during that part of the operation specified in the facility's specific condition prescribing visible emissions.~~

- ~~(6) In the case of batch or discontinuous operation, readings shall be taken during that part of the operation specified in the facility's specific condition prescribing visible emissions.~~
- ~~(7) 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 and abnormal visible emissions for that specific process.~~
- ~~(8) The Preventive Maintenance Plan for this facility shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.~~

#### **Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]**

##### **D.2.1 Particulate [326 IAC 6-3-2]**

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- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the starch silo loading/unloading area shall not exceed 1.39 pounds per hour when operating at process weight rate of 397 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the scrap paper collection system shall not exceed 4.63 pounds per hour when operating at process weight rate of 2400 pounds per hour.

The above pounds per hour limitations were calculated with the following equation:

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

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

#### **Compliance Determination Requirements [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]**

##### **D.2.2 Particulate Control**

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- (a) In order to comply with Condition D.1.3(a), the cyclone for particulate control shall be operated according to manufacturer's specifications and control emissions from the scrap paper collection system at all times the scrap paper collection system (including the bailer) is in operation.
- (b) In order to comply with Condition D.1.3(b), the bin vent filtration system for particulate control shall be in operation and control emissions from the starch silo loading/unloading area at all times the starch silo is being loaded and unloaded.

#### **Compliance Monitoring Requirements [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]**

##### **D.2.3 Filter Inspection**

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An inspection shall be performed each calendar quarter of all the filters. Defective filters shall be replaced. A record shall be kept of the results of the inspection and the number of filters replaced.

#### **D.2.4 Broken or Failed Filter Detection**

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**In the event that a filter's failure has been observed:**

- (a) The affected compartments will be shut down immediately until the failed units have been replaced.**
- (b) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.**

**Filter failure can be indicated by a significant drop in the filter 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.**

#### **Record Keeping and Reporting Requirements [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]**

#### **D.2.5 Record Keeping Requirements**

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- (a) To document compliance with Condition D.2.3, the Permittee shall maintain records of the results of the inspections required under Condition D.2.3.**
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.**

The source shall continue to operate according to 326 IAC 2-5.5. Please find enclosed the revised registration. A copy of the registration is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov](http://www.idem.in.gov)

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Christine L. Filutze, at (800) 451-6027, press 0 and ask for Christine L. Filutze or extension 3-8397, or dial (317) 233-8397.

Sincerely/Original Signed By:

Alfred C. Dumauual, Ph. D., Section Chief  
Permits Branch  
Office of Air Quality

ACD/clf

Attachment: Registration  
Revised Registration Calculations

cc: File - Knox County  
Knox County Health Department  
Air Compliance Section  
IDEM Southwest Regional Office  
Compliance Data Section  
Permits Administrative and Development  
Billing, Licensing and Training Section



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## REGISTRATION OFFICE OF AIR QUALITY

Packaging Corporation of America  
408 East Saint Clair Street  
Vincennes, Indiana 47591

Pursuant to 326 IAC 2-5.1 (Construction of New Sources: Registrations) and 326 IAC 2-5.5 (Registrations), (herein known as the Registrant) is hereby authorized to construct and operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this registration.

Registration No. 083-12749-00040	
Original signed by: Paul Dubenetzky, Chief Permits Branch Office of Air Quality	Issuance Date: January 4, 2001

First Registration Revision No. 083-18215-00040, issued on December 11, 2003

Registration Notice-Only Change No. 083-26587-00040	
Issued by/Original Signed By:  Alfred C. Dumauual, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: July 1, 2008

## SECTION A

## SOURCE SUMMARY

This registration 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 Registrant 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 Registrant to obtain additional permits pursuant to 326 IAC 2.

### A.1 General Information

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The Registrant owns and operates a stationary linerboard and corrugated box manufacturing plant.

Source Address:	408 East Saint Clair Street, Vincennes, IN 47591
Mailing Address:	408 East Saint Clair Street, Vincennes, IN 47591
General Source Phone Number:	812-886-2464
SIC Code:	2653
County Location:	Knox County
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Registration

### A.2 Emission Units and Pollution Control Equipment Summary

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

- (a) One (1) natural gas fired boiler constructed in 1979, designated as BL2, with an input capacity of 13.2 MMBtu/hr and one (1) natural gas fired boiler constructed in 2008, designated as BL3, with an input capacity of 21.0 MMBtu/hr; both BL2 and BL3 exhaust to a stack designated as 001.
- (b) One (1) starch storage silo constructed in 1997, with a maximum storage capacity of 110,000 pounds, equipped with an integral bin vent filtration system to aid in the reduction of starch lost from the pneumatic loading process, and exhausts to a stack designated as 003.
- (c) Five (5) flexographic printing presses, with a total maximum ink usage rate of 17.11 pounds per hour, a total maximum corrugated sheet rate of 18,000 pounds per hour, exhausts through the general ventilation system designated as 002 and maintains the following:
  - (1) One (1) flexographic press constructed in 1995, designated as 283, with a maximum line speed of 990 ft/min and a maximum printing width of 122 inches.
  - (2) One (1) flexographic press constructed in 1967, designated as 262, with a maximum line speed of 1050 ft/min and a maximum printing width of 96 inches.
  - (3) One (1) flexographic press constructed in 1976, designated as 314, with a maximum line speed of 700 ft/min and a maximum printing width of 80 inches.
  - (4) One (1) flexographic press constructed in 1971, designated as 310, with a maximum line speed of 640 ft/min and a maximum printing width of 78 inches.
  - (5) One (1) flexographic press constructed in 1975, designated as 330, with a maximum line speed of 550 ft/min and a maximum printing width of 146 inches.
- (d) One (1) adhesive/glue application area constructed in 1997, with a maximum adhesive/glue usage rate of 18.3 pounds per hour, a maximum printed corrugated sheet

rate of 17,100 pounds per hour and exhausts through the general ventilation system designated as 002.

- (e) One (1) wax application area constructed in 1997, with a maximum wax usage rate of 20,000 gallons per year, a maximum corrugated sheet rate of 1,800 pounds per hour and exhausts through the general ventilation system designated as 002.
- (f) One (1) scrap collection system, with a maximum paper rate of 2,400 pounds per hour, exhausts to a stack designated as 004 and consists of the following:
  - (1) One (1) integral paper separation cyclone, which collects the scrap and conveys the paper to the baler, an air flow rate of 60,000 cfm and an overall efficiency of 99.9%; and
  - (2) One (1) baler constructed in 1997.
- (g) One (1) flexographic printing press constructed in 1978, designated as 320, with a maximum line speed of 833 ft/min and a maximum printing width of 106 inches.

## SECTION B

## GENERAL CONDITIONS

### B.1 Definitions [326 IAC 2-1.1-1]

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Terms in this registration 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 Effective Date of Registration [IC 13-15-5-3]

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Pursuant to IC 13-15-5-3, this registration is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

### B.3 Registration Revocation [326 IAC 2-1.1-9]

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

- (a) Violation of any conditions of this registration.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this registration.
- (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 registration shall not require revocation of this registration.
- (d) For any cause which establishes in the judgment of IDEM, the fact that continuance of this registration is not consistent with purposes of this article.

### B.4 Prior Permits Superseded [326 IAC 2-1.1-9.5]

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- (a) All terms and conditions of permits established prior to Registration No. 083-26587-00040 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 registration.

### B.5 Annual Notification [326 IAC 2-5.1-2(f)(3)] [326 IAC 2-5.5-4(a)(3)]

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Pursuant to 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3):

- (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 registration.
- (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 Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, IN 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.6 Source Modification Requirement [326 IAC 2-5.5-6(a)]**

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Pursuant to 326 IAC 2-5.5-6(a), an application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

**B.7 Registrations [326 IAC 2-5.1-2(i)]**

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Pursuant to 326 IAC 2-5.1-2(i), this registration does not limit the source's potential to emit.

**SECTION C**

**SOURCE OPERATION CONDITIONS**

Entire Source

**Emission Limitations and Standards [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]**

**C.1 Opacity [326 IAC 5-1]**

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 registration:

- (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.2 Fugitive Dust Emissions [326 IAC 6-4]**

The Registrant 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).

## SECTION D.1

## OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (a) One (1) natural gas fired boiler constructed in 1979, designated as BL2, with an input capacity of 13.2 MMBtu/hr and one (1) natural gas fired boiler constructed in 2008, designated as BL3, with an input capacity of 21.0 MMBtu/hr; both BL2 and BL3 exhaust to a stack designated as 001.

(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 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]

#### D.1.1 Particulate [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3(d) (Particulate Emission Limitations for Sources of Indirect Heating: emission limitations for facilities specified in 326 IAC 6-2-1(b)), the particulate matter (PM) emissions from Boiler BL2 shall in no case exceed 0.8 pounds of particulate matter per million British thermal units heat input.

#### D.1.2 Particulate [326 IAC 6-2-2]

Pursuant to 326 IAC 6-2-2 (Particulate Limitations for Sources of Indirect Heating), the particulate matter (PM) emissions from Boiler BL3 shall be limited to 0.435 pounds per MMBtu heat input.

This limitation is based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

where:

Pt = Allowable Particulate Emission Limitation in pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input; and

Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. (Q = 13.2 + 21.0 = 34.2 MMBtu/hr)

## SECTION D.2

## OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (a) One (1) starch storage silo constructed in 1997, with a maximum storage capacity of 110,000 pounds, equipped with an integral bin vent filtration system to aid in the reduction of starch lost from the pneumatic loading process, and exhausts to a stack designated as 003.
- (b) One (1) scrap collection system, with a maximum paper rate of 2,400 pounds per hour, exhausts to a stack designated as 004 and consists of the following:
  - (1) One (1) integral paper separation cyclone, which collects the scrap and conveys the paper to the baler, an air flow rate of 60,000 cfm and an overall efficiency of 99.9%; and
  - (2) One (1) baler constructed in 1997.

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

### Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]

#### D.2.1 Particulate [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the starch silo loading/unloading area shall not exceed 1.39 pounds per hour when operating at process weight rate of 397 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the scrap paper collection system shall not exceed 4.63 pounds per hour when operating at process weight rate of 2400 pounds per hour.

The above pounds per hour limitations were calculated with the following equation:

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

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

### Compliance Determination Requirements [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

#### D.2.2 Particulate Control

- (a) In order to comply with Condition D.1.3(a), the cyclone for particulate control shall be operated according to manufacturer's specifications and control emissions from the scrap paper collection system at all times the scrap paper collection system (including the baler) is in operation.
- (b) In order to comply with Condition D.1.3(b), the bin vent filtration system for particulate control shall be in operation and control emissions from the starch silo loading/unloading

area at all times the starch silo is being loaded and unloaded.

### **Compliance Monitoring Requirements [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]**

#### **D.2.3 Filter Inspection**

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An inspection shall be performed each calendar quarter of all the filters. Defective filters shall be replaced. A record shall be kept of the results of the inspection and the number of filters replaced.

#### **D.2.4 Broken or Failed Filter Detection**

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In the event that a filter's failure has been observed:

- (a) The affected compartments will be shut down immediately until the failed units have been replaced.
- (b) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

Filter failure can be indicated by a significant drop in the filter 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.

### **Record Keeping and Reporting Requirements [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]**

#### **D.2.5 Record Keeping Requirements**

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- (a) To document compliance with Condition D.2.3, the Permittee shall maintain records of the results of the inspections required under Condition D.2.3.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH**

**REGISTRATION  
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3).

<b>Company Name:</b>	Packaging Corporation of America
<b>Address:</b>	408 East Saint Clair Street
<b>City:</b>	Vincennes, IN 47591
<b>Phone Number:</b>	812-886-2464
<b>Registration No.:</b>	083-12749-00040

- I hereby certify that Packaging Corporation of America is :  still in operation.  
 no longer in operation.
- I hereby certify that Packaging Corporation of America is :  in compliance with the requirements of Registration No. 083-12749-00040.  
 not in compliance with the requirements of Registration No. 083-12749-00040.

<b>Authorized Individual (typed):</b>
<b>Title:</b>
<b>Signature:</b>
<b>Phone Number:</b>
<b>Date:</b>

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.

<b>Noncompliance:</b>

**Appendix A: Emissions Calculations  
Summary Emissions**

**Company Name: Packaging Corporation of America**  
**Address: 408 E. Clair Street, Vincennes, Indiana**  
**Registration: 083-26587-00040**  
**Reviewer: Christine L. Filutze**  
**Date: June 27, 2008**

**Potential to Emit (Tons/Year)**

Activity Type	PM	PM-10	SO2	VOC	CO	NOx	Single HAPs				Total HAPs
							Glycol Ether	Methanol	Formaldehyde	Hexane	
Boilers	0.28	1.14	0.09	0.82	12.58	14.98	-	-	-	0.27	1.3
Cyclone	10.5	10.5	-	-	-	-	-	-	-	-	
Starch Silo	0.22	-	-	-	-	-	-	-	-	-	
Glue Application	-	-	-	0.51	-	-	-	-	-	-	
Ink Application	-	-	-	4.14	-	-	0.90	-	-	-	
Wax Application	-	-	-	0.33	-	-	0.28	0.001	0.004	-	
<b>Total</b>	<b>11.0</b>	<b>11.6</b>	<b>0.1</b>	<b>5.8</b>	<b>12.6</b>	<b>15.0</b>	<b>1.2</b>	<b>0.001</b>	<b>0.004</b>	<b>0.3</b>	

**Single HAPs Worst Case = Glycol Ether at 1.2 tons/year**  
**Total HAPs Worst Case = 1.5 tons/year**

Wax Application HAPs Total = 0.3

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
MM BTU/HR <100**

**Company Name: Packaging Corporation of America  
Address: 408 E. Clair Street, Vincennes, Indiana  
Registration: 083-26587-00040  
Reviewer: Christine L. Filutze  
Date: June 27, 2008**

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

13.2

115.6

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.1	0.4	0.0	5.8	0.3	4.9

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 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

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

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 (SUPPLEMENT D 3/98)

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

See next page for HAPs emissions calculations.

**Appendix A: Emissions Calculations  
 Natural Gas Combustion Only  
 MM BTU/HR <100  
 HAPs Emissions**

**Company Name: Packaging Corporation of America  
 Address: 408 E. Clair Street, Vincennes, Indiana  
 Registration: 083-26587-00040  
 Reviewer: Christine L. Filutze  
 Date: June 27, 2008**

HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.214E-04	6.938E-05	0.00	0.10	1.966E-04

HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	2.891E-05	6.360E-05	8.094E-05	2.197E-05	1.214E-04

Methodology is the same as previous page.

Total      0.11

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: Emissions Calculations  
Natural Gas Combustion Only  
MM BTU/HR <100**

**Company Name: Packaging Corporation of America  
Address: 408 E. Clair Street, Vincennes, Indiana  
Registration: 083-26587-00040  
Reviewer: Christine L. Filutze  
Date: June 27, 2008**

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

21.0

184.0

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.2	0.7	0.1	9.2	0.5	7.7

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 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

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

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 (SUPPLEMENT D 3/98)

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

See next page for HAPs emissions calculations.

**Appendix A: Emissions Calculations  
 Natural Gas Combustion Only  
 MM BTU/HR <100  
 HAPs Emissions**

**Company Name: Packaging Corporation of America  
 Address: 408 E. Clair Street, Vincennes, Indiana  
 Registration: 083-26587-00040  
 Reviewer: Christine L. Filutze  
 Date: June 27, 2008**

HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.932E-04	1.104E-04	0.01	0.17	3.127E-04

HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	4.599E-05	1.012E-04	1.288E-04	3.495E-05	1.932E-04

Methodology is the same as previous page.

Total      0.17

The five highest organic and metal HAPs emission factors are provided above.  
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.