



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant
DATE: December 13, 2007
RE: Genpak, LLC / 143-25032-00016
FROM: Matthew Stuckey, Deputy Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

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 IC 13-15-5-3, this permit 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.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require 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 of 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.dot12/03/07



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Thomas W. Easterly
Commissioner

Mr. Joseph Smith
Genpak, LLC
68 Warren Street
Glens Falls, New York 12801

December 13, 2007

Re: 143-25032-00016
Significant Source Modification to a Part 70 Source:
Part 70 Permit No.: T143-11375-00016

Dear Mr Smith:

Genpak, LLC, was issued Part 70 Operating Permit T143-11375-00016 on March 20, 2000 for a stationary plant that manufactures Expandable Polystyrene (EPS) foam extrusion food trays and cups. An application regarding re-evaluation of the state Best Available Control Technology (BACT) requirements for volatile organic compound (VOC) emissions from the existing Repelletizer, Repel-1 operation was received on April 23, 2007. Therefore, this modification is subject to 326 IAC 2-7-10.5, Significant Source Modification.

The following construction conditions are applicable to the proposed project:

- General Construction Conditions
- (a) The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
 - (b) This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
 - (c) Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
 - (d) Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
 - (e) All requirements and conditions of this construction approval shall remain in effect unless

Genpak, LLC
Scottsburg, Indiana
Permit Reviewer: Aida De Guzman

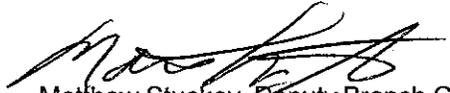
Page 2 of 2
Significant Source Modification No. 143-25032-00016

modified in a manner consistent with procedures established pursuant to 326 IAC 2.

- (f) Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

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 call (800) 451-6027, and ask for Aida De Guzman or extension (3-4972), or dial (317) 233-4972.

Sincerely,



Matthew Stuckey, Deputy Branch Chief
Permits Branch
Office of Air Quality

Attachments

APD

cc: File - Scott County
Scott County Health Department
Air Compliance Section Inspector
Compliance Data Section
Administrative and Development



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SIGNIFICANT SOURCE MODIFICATION OFFICE OF AIR QUALITY

Genpak, LLC
845 South Elm Street
Scottsburg, Indiana 47170

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

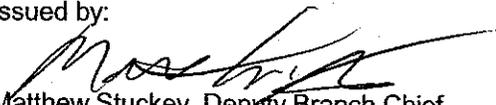
Significant Source Modification No.: 143-25032-00016	
Issued by:  Matthew Stuckey, Deputy Branch Chief Permits Branch Office of Air Quality	Issuance Date: December 13, 2007

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SECTION A

SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary Expandable Polystyrene (EPS) foam extrusion food trays and cups production operation.

Source Address:	845 South Elm Street, Scottsburg, Indiana, 47170
Mailing Address:	845 South Elm Street, Scottsburg, Indiana, 47170
General Source Phone Number:	812-752-3111
SIC Code:	3089
County Location:	Scott
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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

(a) Food trays production line:

(1) Three (3) polystyrene foam extrusion operations identified as EPS-1, EPS-2 and EPS-3, each extruding a maximum of 1,400 pounds per hour polystyrene consisting of the following:

- (A) One (1) polystyrene foam scrap regrinder, identified as Re grind-1 with a maximum capacity of 1266 pounds per hour, using fabric filters as control.
- (B) Three (3) fluff silos.
- (C) One polystyrene scrap repelletization, identified as Repel-1.

The repelletizer, Repel-1 VOC emissions are primarily controlled by a 20.9 MMBtu/hour Boiler, exhausting to stack S-1. Alternatively, the emissions can be controlled by the 1.0 MMBtu/hr Recuperative Thermal Oxidizer, exhausting through INCIN-1;

(b) Cup production line:

- (1) Mold machines, identified as M-1, molding a maximum of 833 pounds per hour of pre-expandable pentane containing resin beads and exhausting to the interior of the building,
- (2) Pre-Expansion Room, identified as the Pre-Expansion Room, expanding a maximum of 833 pounds per hour of pre-expandable pentane containing resin beads, utilizing a boiler to control VOC emissions, exhausting to S-1, and consisting of:
 - (A) Material Preparation,

- (B) Pre-Expander, identified as PE-1,
- (C) Pre-Puff, identified as PP-1, and
- (D) One (1) natural gas fired boiler with a rated heat input of 20.9 mmBtu per hour.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]

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

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour;
 - (1) Three (3) process dryers with combined maximum heat input capacity of 1.5 million British thermal units per hour (mmBtu/hr);
 - (2) Fourteen (14) gas unit heaters with combined maximum heat input capacity of 2.0 mmBtu per hour;
 - (3) Three (3) air makeup units with combined maximum heat input of 8.2 mmBtu per hour;
- (b) The following VOC and HAP storage container: Vessels storing lubricating oils, hydraulic oils, machining oils and machining fluids with capacities less than forty cubic meters (40m³);
- (c) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6; [326 IAC 8-3-2] [326 IAC 8-3-5]
- (d) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment; [326 IAC 6-3]
- (e) Closed loop heating and cooling systems;
- (f) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (g) Paved and unpaved roads and parking lots with public access; [326 IAC 6-4 and 326 IAC 6-5]
- (h) Enclosed systems for conveying plastic raw materials and plastic finished goods;
- (i) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower;
- (j) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying and woodworking operations; [326 IAC 6-3] and
- (k) Other activities or categories of activities with emissions equal to or less than insignificant thresholds:
 - (1) One (1) 30,000 gallons storage tank, constructed on December 1, 1998, containing the blowing agents (confidential information), designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.
- (l) APET-1 Plastic Extruder, constructed in 1998, with a maximum production rate of 2,100

pounds per hour of polystyrene sheets. This process does not use a VOC blowing agent.

- (m) APET-2 Plastic Extruder, constructed in 2003, with a maximum production rate of 2,100 pounds per hour of polystyrene sheets. This process does not use a VOC blowing agent.

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

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

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

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

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

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

- (a) This permit, TV 129-24928-00014, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7]

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

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

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

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

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

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

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" of truth, accuracy, and completeness. This certification shall

state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(34).

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

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

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

and

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)][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) within ninety (90) days after issuance of this permit, 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 Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (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 or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (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.11 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the

emergency, or after the emergency was discovered or reasonably should have been discovered;

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

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

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

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

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

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
 - (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
 - (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

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

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

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
- (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

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

- (a) All terms and conditions of permits established prior to TV 143-24660-00016 and issued pursuant to permitting programs approved into the state implementation plan have been either:

- (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

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

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

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

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

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

- (1) That this permit contains a material mistake.
- (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
- (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this

permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

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

B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12] [40 CFR 72]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)]
[326 IAC 2-7-12(b)(2)]

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

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

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

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

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

and

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

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

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

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

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
- (1) A brief description of the change within the source;
 - (2) The date on which the change will occur;
 - (3) Any change in emissions; and
 - (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

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

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

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

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, 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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

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

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

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

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

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

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

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;

- (B) Removal or demolition contractor; or
- (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.10 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

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

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

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

C.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

- (b) These ERPs shall be submitted for approval to:

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

within ninety (90) days after the date of issuance of this permit.

The ERP does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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

C.14 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) Upon detecting an excursion or exceedance, the Permittee shall 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 emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned 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 within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
 - (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 maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

- (a) Pursuant to 326 IAC 2-6-3(b)(3), starting in 2006 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
 - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

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

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The emission statement 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.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. 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, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

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

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit 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.

Stratospheric Ozone Protection

C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

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

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) Food trays production line:

(1) Three (3) polystyrene foam extrusion operations identified as EPS-1, EPS-2 and EPS-3, each extruding a maximum of 1,400 pounds per hour polystyrene consisting of the following:

- (A) One (1) polystyrene foam scrap regrinder, identified as Re grind-1 with a maximum capacity of 1266 pounds per hour, using fabric filters as control.
- (B) Three (3) fluff silos.
- (C) One polystyrene scrap repelletization, identified as Repel-1.

The repelletizer, Repel-1 VOC emissions are primarily controlled by a 20.9 MMBtu/hour Boiler, exhausting to stack S-1. Alternatively, the emissions can be controlled by the 1.0 MMBtu/hr Recuperative Thermal Oxidizer, exhausting through INCIN-1;

(b) Cup production line:

(1) Mold machines, identified as M-1, molding a maximum of 833 pounds per hour of pre-expandable pentane containing resin beads and exhausting to the interior of the building,

(2) Pre-Expansion Room, identified as the Pre-Expansion Room, expanding a maximum of 833 pounds per hour of pre-expandable pentane containing resin beads, utilizing a boiler to control VOC emissions, exhausting to S-1, and consisting of:

- (A) Material Preparation,
- (B) Pre-Expander, identified as PE-1,
- (C) Pre-Puff, identified as PP-1, and
- (D) One (1) natural gas fired boiler with a rated heat input of 20.9 mmBtu per hour.

(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 2-7-5(1)]

D.1.1 Volatile Organic Compounds (VOC) BACT and Minor PSD Limits [326 IAC 8-1-6] [326 IAC 2-2]

(a) Pursuant to 326 IAC 8-1-6, the Best Available Control Technology (BACT) and SSM No. 143-25032-00016, for the food trays production line emission units shall be the following:

- (1) The VOC emissions from the polystyrene foam scrap repelletizer, Repel-1 shall be controlled by either the 20.9 MMBtu/hour Boiler or the 1.0 MMBtu/hr RTO. Each of the boiler and the RTO shall have a minimum destruction efficiency of 95%.
- (2) The capture system for the repelletizer, Repel-1 shall have a minimum capture efficiency of 85%.
- (3) The blowing agent input to the three (3) polystyrene foam extrusion operations (EPS-1, EPS-2 and EPS-3) shall be limited to 906.66 tons per 12 month

consecutive period.

- (4) No add-on controls are required for the fluff silos.

Compliance with this condition shall limit the combined VOC emissions to 170.43 tons per 12 month consecutive period from the Extrusion, Warehouse, Thermoform, Repelletizer and the Fluff Silos.

- (b) Pursuant to Significant Source Modification 143-11382-00016, issued on February 10, 2000, and 326 IAC 8-1-6, the Best Available Control Technology (BACT), for the Pre-Expansion Room shall be the following:

- (1) The blowing agent input to the Foam Cup Production Line, shall be limited to 182 tons per 12 consecutive month period, with compliance at the end of each month. This blowing agent input shall limit the VOC emissions from the Pre-Expansion Room and Mold Machines (M-1) to 64.36 tons of VOC emissions per 12 consecutive month period.
- (2) The VOC emissions from the Pre-Expansion Room shall be controlled by the 20.9 MMBtu/hour Boiler. The boiler shall have a minimum destruction efficiency of 95%. The Boiler shall be used at all times that the Pre-Expansion Room is in operation.
- (3) The capture system for the Pre-Expansion Room shall have a minimum capture efficiency of 95%.
- (4) No add-on controls are required for the Mold Machines, identified as M-1.

Compliance with this condition shall satisfy the requirements of 326 IAC 8-1-6 (General Reduction Requirements). Compliance with this condition shall render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.1.2 Prevention of Significant Deterioration Minor Limits [326 IAC 2-2]

- (a) The PM emissions from the polystyrene foam scrap regrinder controlled by fabric filters shall not exceed the 54.8 pounds per hour.
- (b) The PM10 emissions from the polystyrene foam scrap regrinder controlled by fabric filters shall not exceed the 54.8 pounds per hour.

Compliance with this condition shall render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.1.3 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the polystyrene foam scrap regrind operation shall not exceed 3.02 pounds per hour when operating at a process weight rate of 1266 pounds per hour.

The pounds per hour limitation was 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:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour} \\ P = \text{process weight rate in tons per hour}$$

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.1.5 Particulate Matter (PM)

In order to comply with Condition D.1.2, the fabric filters for PM control shall be in operation and control emissions from the polystyrene foam scrap regrind operation at all times that this facility is in operation.

D.1.6 Volatile Organic Compound (VOC)

- (a) In order to comply with Condition D.1.1(a), the boiler or the RTO shall control emissions from the polystyrene foam repelletizer Repel-1 at all times that the process is in operation.
- (b) In order to comply with Condition D.1.1(b), the boiler controlling VOC emissions from the Pre-Expansion Room shall operate at all times that the process is in operation.
- (c) Compliance with the pentane input limit to the Foam Cup Line required in Condition D.1.1(b) shall be determined using the following equation:

$$B_v = \sum_{i=1}^n (E_b)_i * (P_c)_i$$

where:

B_v = Monthly blowing agent input, (tons/month).

E_b = Pre-expanded beads usage during the month, (tons/month)

P_c = Percentage of blowing agent in the pre-expanded beads, (%)

n = Number of types of pre-expanded beads used during the month

i = Pre-expanded bead type

D.1.7 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

- (a) In order to demonstrate compliance with Condition D.1.1(a) and (b), the Permittee shall perform VOC testing, including efficiency of the repelletizer Repel - 1 and Pre-Expansion Room capture systems and destruction efficiency of the 20.9 MMBtu/hr Boiler, within 60 days, but no later than 180 days after repelletizer Repel - 1 VOC emissions have been re-directed to the Boiler, utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C – Performance Testing.
- (b) In order to demonstrate compliance with Condition D.1.1(a), the Permittee shall perform VOC testing, including efficiency of the repelletizer Repel - 1 capture system and destruction efficiency of the 1.0 MMBtu/hr RTO, on or before October 13, 2009 and every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C – Performance Testing.
- (c) In order to demonstrate compliance with Conditions D.1.2 and D.1.3, the Permittee shall perform PM and PM10 testing for the fabric filters controlling the polystyrene foam scrap regrinder, within 180 days after the issuance of the Part 70 Permit Renewal No. 143-24660-00016, utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C – Performance Testing. PM10 includes filterable and condensable PM10.

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

D.1.8 Visible Emissions Notations

- (a) Visible emission notations of the stack exhausts from fabric filters controlling the polystyrene foam scrap regrinder shall be performed once per day during normal daylight operations. 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 reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.9 Fabric Filters Parametric Monitoring

- (a) The Permittee shall record the pressure drop across the fabric filters controlling the polystyrene foam scrap regrinder at least once per day when the emission unit is in operation.
- (b) When, for any one reading, the pressure drop across the fabric filters is outside of the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (c) The instruments used for determining the pressure shall comply with Section C - Instrument Specifications of this permit, and shall be calibrated at least once every six (6) months.

D.1.10 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (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), or
- (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 line. 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, or leaks, or dust traces.

D.1.11 Parametric Monitoring

- (a) The Permittee shall determine the appropriate duct pressure or fan amperage from the most recent valid stack test as approved by IDEM.
- (b) The duct pressure or fan amperage shall be observed at least once per day for the Boiler or RTO whenever each control is operating. On and after the date the approved stack test results are available, the duct pressure or fan amperage shall be maintained at a minimum operating fan amperage of 12.0 amps or within the normal range as established

in most recent compliant stack test.

D.1.12 Boiler Operating Temperature

In order to comply with the PSD minor limit and BACT limit in Condition D.1.1, the Permittee shall meet the following:

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the 20.9 MMBtu/hr Boiler for measuring operating temperature when controlling the VOC emissions from the repelletizer, Repel-1. For the purpose of this condition, continuous means no less than once per minute. The output of this system shall be recorded as a 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the Boiler at or above the 3-hour average temperature of 1,400°F.
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with the limits in Condition D.1.1 as approved by IDEM.
- (c) On and after the date the approved stack test results are available, the Permittee shall operate the Boiler at or above the 3-hour average temperature as observed during the compliant stack test.

D.1.13 RTO Operating Temperature

In order to comply with the PSD minor limit and BACT limit in Condition D.1.1, the Permittee shall meet the following:

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the 1.0 MMBtu/hr RTO for measuring operating temperature, when controlling the VOC emissions from the Repelletizer, Repel-1. For the purpose of this condition, continuous means no less than once per minute. The output of this system shall be recorded as a 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the RTO at or above the 3-hour average temperature of 1,400°F.
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with the limits in Condition D.1.1 as approved by IDEM.
- (c) On and after the date the approved stack test results are available, the Permittee shall operate the RTO at or above the 3-hour average temperature as observed during the compliant stack test.

D.1.14 Boiler and RTO Compliance Assurance Monitoring (CAM) [40 CFR Part 64]

- (a) Pursuant to 40 CFR Part 64, the Permittee shall comply with the following Compliance Assurance Monitoring requirements for the 20.9 MMBtu/hr Boiler and the 1.0 MMBtu/hr RTO controlling the repelletizer Repel-1:
 - (1) Monitoring Approach For the Capture System on the repelletizer Repel-1.

I. Indicator	Work Practice
Measurement Approach	<p>Inspect the operational condition of the control device and the integrity of the exhaust system from the process to the control device.</p> <p>Record duct pressure and fan amperage established during the most recent stack tests.</p>
II. Indicator Range	An excursion of the duct pressure and fan amperage is identified as any finding that the integrity of the exhaust system ductwork has been compromised.
Corrective Action	Each excursion triggers an assessment of the problem, corrective action and a reporting requirement.
III. Performance Criteria	
A. Data Representativeness	Leak-free ductwork of the process will assure that all of the exhaust will reach the control device. Inspections will identify problems.
B. Verification of Operational Status	Inspection records.
C Monitoring Frequency	Once Daily
Data Collection Procedure	Record results of inspections and observations.
D. Recordkeeping	Maintain for a period of 5 years records of inspections, including dates and initials of person conducting inspection, and of corrective actions taken in response to excursions.
E. Reporting	Number, duration, cause of any excursion and the corrective action taken.
Reporting Frequency	Quarterly

(2) Monitoring Approach for the 20.9 MMBtu/hr Boiler and the 1.0 MMBtu/hr RTO Controlling the Repelletizer, Repel-1:

	Indicator #1	Indicator #2	Indicator #3
I. Indicator	Boiler and RTO combustion zone temperature.	Work practice/inspection.	Performance tests
Measurement Approach	Continuously monitor the operating temperature of the Boiler and the RTO combustion zone, whichever control is used.	Inspect internal and external structural integrity of Boiler and RTO to ensure proper operation.	Conduct emissions test to demonstrate compliance with permitted destruction efficiency.
II. Indicator Range	An excursion is identified as a measurement of 50°F less than the average temperature demonstrated during the most recent compliance demonstration, or as any 3-hour period when the average temperature is less than the average temperature demonstrated during the most recent compliance demonstration.	An excursion is identified as any finding that the structural integrity of the Boiler and the RTO has been jeopardized and it no longer operates as designed.	An excursion is identified as any finding that the Boiler and the RTO does not meet the permitted destruction efficiency.
Corrective Action	Each excursion triggers an assessment of the problem, corrective action and a reporting requirement.	Each excursion triggers an assessment of the problem, corrective action and a reporting requirement.	Each excursion triggers an assessment of the problem, corrective action and a reporting requirement.
III. Performance Criteria			
A. Data Representativeness	Any temperature-monitoring device employed to measure the control combustion zone temperature shall be accurate to within 1.0% of temperature measured or $\pm 1^{\circ}\text{C}$, whichever is greater.	Inspections of the Boiler and RTO will identify problems.	A test protocol shall be prepared and approved by the IDEM prior to conducting the performance test.
B. Verification of Operational Status	Temperatures recorded on chart paper or electronic media. The Permittee must have valid data from at least 90 percent of the hours during which the process operated.	Inspection records.	Not applicable.

	Indicator #1	Indicator #2	Indicator #3
C. QA/QC Practices and Criteria	Validation of temperature system conducted annually. Acceptance criteria $\pm 20^{\circ}\text{F}$.	Not applicable.	EPA test methods approved in protocol.
D. Monitoring Frequency	Measured continuously	External Inspection – annually Internal inspection – annually.	Once every five years.
Data Collection Procedure	Recorded at least every 15-minutes on a chart or electronic media.	Record results of inspections and observations.	Per approved test method.
Averaging Period	Not applicable if using any measured value as indicator. Three hours if using 3-hour average as indicator.	Not applicable.	Not applicable.
E. Record Keeping	Maintain for a period of 5 years records of chart recorder paper or electronic media and corrective actions taken in response to excursions.	Maintain for a period of 5 years records of inspections, including dates and initials of person conducting inspection, and of corrective actions taken in response to excursions.	Maintain a copy of the test report for 5 years or until another test is conducted. Maintain records of corrective actions taken in response to excursions.
F. Reporting	Number, duration, cause of any excursion and the corrective action taken.	Number, duration, cause of any excursion and the corrective action taken.	Submit test protocol and notification of testing to IDEM at least 35 days prior to test date. Submit test report 45 days after conducting a performance test.
Frequency	Quarterly.	Annually.	For each performance test conducted.

(b) Pursuant to 40 CFR Part 64, the Permittee shall comply with the following Compliance Assurance Monitoring requirements for the 20.9 MMBtu/hr Boiler controlling the Pre-Expansion Room:

- (1) Monitoring Approach For the Capture System on the Pre-Expansion Room.

I. Indicator	Work Practice
Measurement Approach	<p>Inspect the operational condition of the control device and the integrity of the exhaust system from the process to the control device.</p> <p>Record duct pressure and fan amperage established during the most recent stack tests.</p>
II. Indicator Range	<p>An excursion of the duct pressure and fan amperage is identified as any finding that the integrity of the exhaust system ductwork has been compromised.</p>
Corrective Action	<p>Each excursion triggers an assessment of the problem, corrective action and a reporting requirement.</p>
III. Performance Criteria	
A. Data Representativeness	<p>Leak-free ductwork of the process will assure that all of the exhaust will reach the control device. Inspections will identify problems.</p>
B. Verification of Operational Status	<p>Inspection records.</p>
C. Monitoring Frequency	<p>Once Daily</p>
Data Collection Procedure	<p>Record results of inspections and observations.</p>
D. Recordkeeping	<p>Maintain for a period of 5 years records of inspections, including dates and initials of person conducting inspection, and of corrective actions taken in response to excursions.</p>
E. Reporting	<p>Number, duration, cause of any excursion and the corrective action taken.</p>
Reporting Frequency	<p>Quarterly</p>

(2) Monitoring Approach For The 20.9 MMBtu/hr Boiler Controlling the Pre-Expansion Room:

	Indicator #1	Indicator #2	Indicator #3
I. Indicator	Boiler combustion zone temperature.	Work practice/inspection.	Performance test
Measurement Approach	Continuously monitor the operating temperature of the Boiler combustion zone.	Inspect internal and external structural integrity of Boiler to ensure proper operation.	Conduct emissions test to demonstrate compliance with permitted destruction efficiency.
II. Indicator Range	An excursion is identified as a measurement of 50°F less than the average temperature demonstrated during the most recent compliance demonstration, or as any 3-hour period when the average temperature is less than the average temperature demonstrated during the most recent compliance demonstration.	An excursion is identified as any finding that the structural integrity of the Boiler has been jeopardized and it no longer operates as designed.	An excursion is identified as any finding that the Boiler does not meet the permitted destruction efficiency.
Corrective Action	Each excursion triggers an assessment of the problem, corrective action and a reporting requirement.	Each excursion triggers an assessment of the problem, corrective action and a reporting requirement.	Each excursion triggers an assessment of the problem, corrective action and a reporting requirement.
III. Performance Criteria			
A. Data Representativeness	Any temperature-monitoring device employed to measure the Boiler combustion zone temperature shall be accurate to within 1.0% of temperature measured or $\pm 1^{\circ}\text{C}$, whichever is greater.	Inspections of the Boiler system will identify problems.	A test protocol shall be prepared and approved by the IDEM prior to conducting the performance test.
B. Verification of Operational Status	Temperatures recorded on chart paper or electronic media. The Permittee must have valid data from at least 90 percent of the hours during which the process operated.	Inspection records.	Not applicable.
C. QA/QC Practices and Criteria	Validation of temperature system conducted annually. Acceptance criteria $\pm 20^{\circ}\text{F}$.	Not applicable.	EPA test methods approved in protocol.

	Indicator #1	Indicator #2	Indicator #3
D. Monitoring Frequency	Measured continuously	External Inspection – annually Internal inspection – annually.	Once every five years.
Data Collection Procedure	Recorded at least every 15-minutes on a chart or electronic media.	Record results of inspections and observations.	Per approved test method.
Averaging Period	Not applicable if using any measured value as indicator; Three hours if using 3-hour average as indicator.	Not applicable.	Not applicable.
E. Record Keeping	Maintain for a period of 5 years records of chart recorder paper or electronic media and corrective actions taken in response to excursions.	Maintain for a period of 5 years records of inspections, including dates and initials of person conducting inspection, and of corrective actions taken in response to excursions.	Maintain a copy of the test report for 5 years or until another test is conducted. Maintain records of corrective actions taken in response to excursions.
F. Reporting	Number, duration, cause of any excursion and the corrective action taken.	Number, duration, cause of any excursion and the corrective action taken.	Submit test protocol and notification of testing to IDEM at least 35 days prior to test date. Submit test report 45 days after conducting a performance test.
Frequency	Quarterly.	Annually.	For each performance test conducted.

D.1.15 Fabric Filters Compliance Assurance Monitoring (CAM) [40 CFR Part 64]

Pursuant to 40 CFR Part 64, the Permittee shall comply with the following Compliance Assurance Monitoring requirements for the Fabric Filters controlling the polystyrene foam scrap regrinder (Regrind-1):

(a) Monitoring Approach -

PARAMETER	INDICATOR NO. 1	INDICATOR NO. 2	INDICATOR NO. 3
I. Indicator Measurement Approach	PM/ and PM10 Concentration	Visible Emissions	Fabric Filters Condition
	U.S. EPA Method 5 and Method 201A or other Methods approved by the Commissioner – Fabric Filters for Regrind-1	Method 9 visual observations.	Visual inspection.
II. Indicator Range	PM/PM10 emissions limit of 54.8 pounds/hr each Pressure drop range	Abnormal emissions are observed	An excursion is defined as failure to perform the monthly inspection.

	of 1.0 to 6.0 inches		
III. Performance Criteria			
A. Data Representativeness	Stack Testing	Procedures addressed in Method 9	Fabric Filters inspected visually for leaks.
B. QA/QC Practices and Criteria	U.S. EPA Method 5 and Method 201A or other Methods approved by the Commissioner – Fabric Filters for Regrind-1	Use of a certified visible emission observer.	Trained personnel perform inspections and maintenance.
C. Monitoring Frequency	Once every 5 years.	once daily when Regrind-1 is operating unless inclement weather.	Monthly
D. Data Collection Procedures	U.S. EPA Method 5, Method 201A or other Methods approved by the Commissioner	Daily visual observations are recorded	Results of inspections and maintenance activities performed are recorded in the maintenance log.
E. Recordkeeping	Maintain for a period of 5 years until another test is conducted. Maintain for a period of 5 years of corrective actions taken in response to the pressure drop excursion	Maintain for a period of 5 years records of visible emission notations	Maintain for a period of 5 years of corrective actions taken in response to excursions.
F. Reporting	Submit test protocol and notification of testing to IDEM at least 35 days prior to test date. Submit test report 45.		
Frequency	For each performance test conducted.		

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

D.1.16 Record Keeping Requirements

(a) To document compliance with Conditions D.1.1, D.1.12 and D.1.13, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the usage of the blowing agent limits and/or the VOC emission limits established in Conditions D.1.1 D.1.1, D.1.2 and D.1.13.

- (1) The total usage of the blowing agent in food trays production line for each month;
- (2) The total usage of pentane at the cup production line as calculated using equation in Condition D.1.6(c) for each month

- (3) The weight of VOCs emitted for each compliance period;
 - (4) The Permittee shall maintain continuous temperature records of the (on a three-hour average basis) of the Boiler and the RTO and the three-hour average temperature used to demonstrate compliance during the most recent compliant stack test.
 - (5) The Permittee shall maintain once per day records of the boiler and RTO duct pressure or fan amperage. The Permittee shall include in its daily record when duct pressure or fan amperage is not taken and the reason for the lack of duct pressure or fan amperage notation (e.g. the process being controlled by the boiler and the RTO did not operate that day, etc.).
- (b) To document compliance with Condition D.1.8; the Permittee shall maintain a daily record of visible emission notations of the stacks exhaust from the fabric filters controlling the polystyrene foam scrap regrinder. 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).
 - (c) To document compliance with Condition D.1.9, the Permittee shall maintain a daily record of the pressure drop across the fabric filters controlling the polystyrene foam scrap regrinder. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).
 - (d) To document compliance with Condition D.1.14 the Permittee shall maintain records of the RTO and boiler, including the capture system inspections. These records shall include as a minimum, dates, initials of the person performing the inspections, results, and corrective actions taken in response to excursions as required by the CAM for the repelletizer, repel-1 and the Pre-Expansion Room (if any are required).
 - (e) To document compliance with Condition D.1.15 the Permittee shall maintain records of the fabric filters inspections. These records shall include as a minimum, dates, initials of the person performing the inspections, results, and corrective actions taken in response to excursions as required by the CAM for the scrap regrinder, Re grind-1 (if any are required).
 - (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.17 Reporting Requirements

- (a) A quarterly summary of the monthly blowing agent usage from the three (3) polystyrene extrusion operations (EPS-1, EPS-2 and EPS-3) to document compliance with Conditions D.1.1(a).
- (b) A quarterly summary of the monthly pentane input to the Foam Cup Line to document compliance with Condition D.1.1(b).

The reports required in (a) and (b) of this condition shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Insignificant Activities

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6; [326 IAC 8-3-2] [326 IAC 8-3-5]
- (b) Paved and unpaved roads and parking lots with public access; [326 IAC 6-4 and 326 IAC 6-5]
- (c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying and woodworking operations; [326 IAC 6-3] and
- (d) Other activities or categories of activities with emissions equal to or less than insignificant thresholds:
 - (1) One (1) 30,000 gallons storage tank, constructed on December 1, 1998, containing the blowing agents (confidential information). [326 IAC 12][40 CFR 60.110, Subpart Kb].

(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 2-7-5(1)]

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.2.2 Volatile Organic Compounds (VOC)

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) The solvent is agitated; or

- (C) The solvent is heated.
- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
 - (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

D.2.3 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the grinding and machining operations including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying, and woodworking operations shall not exceed allowable PM emission rate based on 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

D.2.4 Particulate Matter (PM)

In order to comply with D.3.3 the control devices for PM control shall be in operation and control emissions from the grinding and machining operations at all times that the grinding and machining operations are in operation.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Genpak, LLC
Source Address: 845 South Elm Street, Scottsburg, Indiana, 47170
Mailing Address: 845 South Elm Street, Scottsburg, Indiana, 47170
Part 70 Permit Renewal No.: T143-24660-00016

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

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify)
- Report (specify)
- Notification (specify)
- Affidavit (specify)
- Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46206-6015
Phone: 317-233-0178
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Genpak, LLC
Source Address: 845 South Elm Street, Scottsburg, Indiana, 47170
Mailing Address: 845 South Elm Street, Scottsburg, Indiana, 47170
Part 70 Renewal Permit No.: T143-24660-00016

This form consists of 2 pages

Page 1 of 2

- This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
 - The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

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

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

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

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:

Title / Position:

Date:

Phone:

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Genpak, LLC
 Source Address: 845 South Elm Street, Scottsburg, Indiana, 47170
 Mailing Address: 845 South Elm Street, Scottsburg, Indiana, 47170
 Part 70 Permit Renewal No.: T143-24660-00016
 Facility: Food Tray Production Line -Three (3) polystyrene foam extrusion operation (EPS-1, EPS-2 and EPS-3)
 Parameter: Volatile Organic Compounds (VOC)
 Limit: Blowing agent input to the polystyrene foam extrusion operation (EPS-1, EPS-2 and EPS-3) shall be limited to 906.66 tons per 12 month consecutive period.

QUARTER _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
 Deviation has been reported on:

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

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Genpak, LLC
 Source Address: 845 South Elm Street, Scottsburg, Indiana, 47170
 Mailing Address: 845 South Elm Street, Scottsburg, Indiana, 47170
 Part 70 Permit Renewal No.: T143-24660-00016
 Facility: Foam Cup Production Line
 Parameter: Volatile Organic Compounds (VOC)
 Limit: Blowing agent input to the Foam Cup Production Line, shall be limited to 182 tons per 12 month consecutive period.

QUARTER _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

Note: The blowing agent input for the Foam Cup Line shall be determined using the equation in Condition D.2.5.

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
 Deviation has been reported on:

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

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Genpak, LLC
Source Address: 845 South Elm Street, Scottsburg, Indiana, 47170
Mailing Address: 845 South Elm Street, Scottsburg, Indiana, 47170
Part 70 Permit Renewal No.: T143-24660-00016

Months: _____ to _____ Year: _____

Page 1 of 2

<p>This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

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

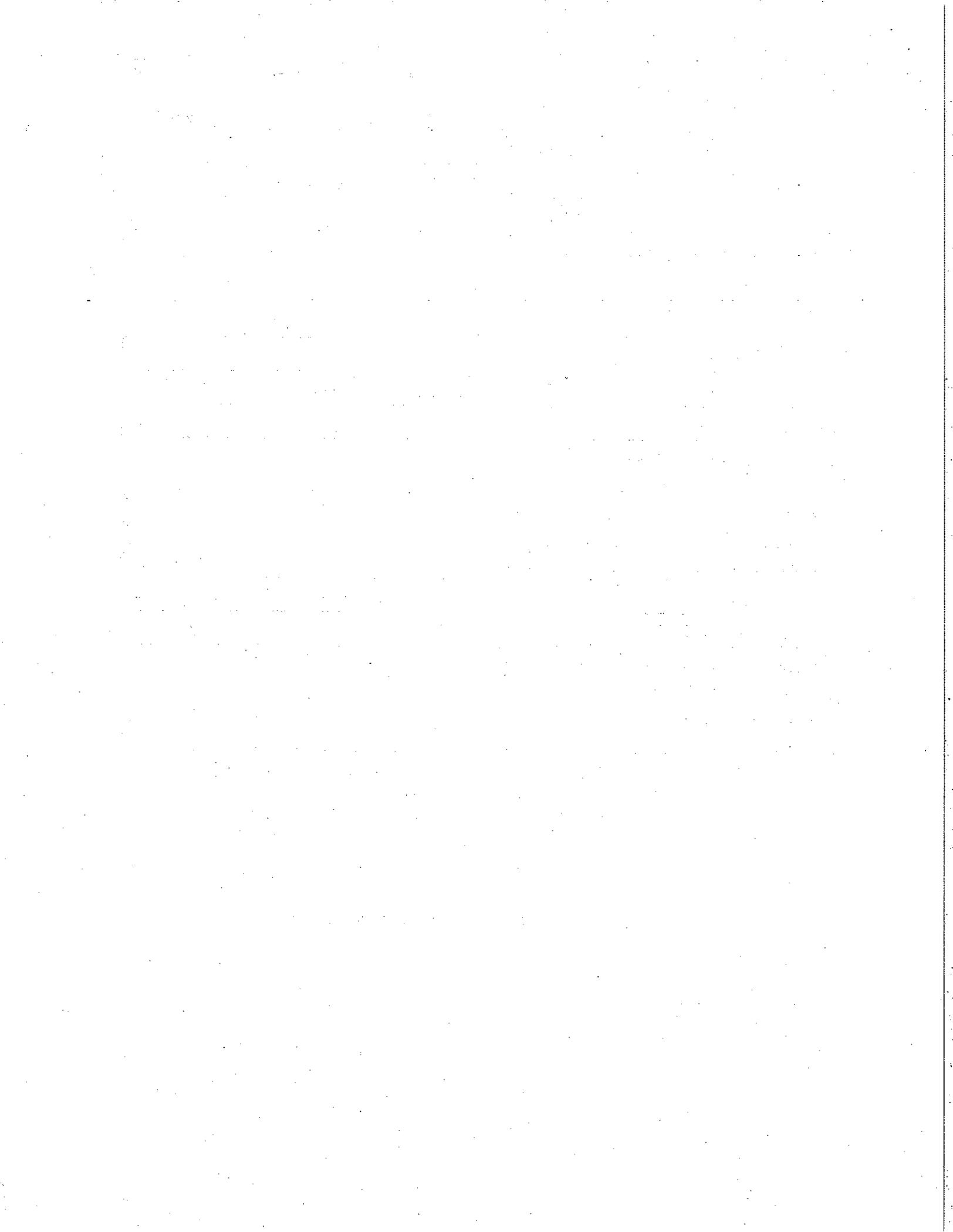
Form Completed By:

Title/Position:

Date:

Phone:

Attach a signed certification to complete this report.



Indiana Department of Environmental Management
Office of Air Quality

**Technical Support Document (TSD) for a Significant Source Modification to a Part 70
Source and a Part 70 Operating Permit Renewal**

Source Background and Description

Source Name:	Genpak, LLC
Source Location:	845 South Elm Street, Scottsburg, Indiana 47170
County:	Scott
SIC Code:	3089
Operation Permit No.:	T143-11375-00016
Operation Permit Issuance Date:	March 20, 2002
Significant Source Modification No.:	143-25032-00016
Part 70 Renewal No.:	143-24660-00016
Permit Reviewer:	Aida De Guzman

The Office of Air Quality (OAQ) has reviewed a Part 70 Permit Renewal application from Genpak, LLC relating to the operation of the plant that manufactures Expandable Polystyrene (EPS) foam extrusion food trays and cups and a Significant Source Modification, which involves the following requested change:

Genpak, LLC, requested to use the 1.0 MMBtu/hr recuperative thermal oxidizer (RTO) as back-up control equipment for the polystyrene foam scrap repelletizer, Repel-1. Currently, this RTO is used to control VOC emissions from the repelletizer. Genpak, LLC is requesting that IDEM re-evaluate BACT and determine if venting VOC emissions to the existing 20.9 MMBtu/hr Boiler would constitute BACT. The RTO was previously determined to be the BACT control technology for the repelletizer, with a capture system efficiency of 85% and RTO destruction efficiency of 95% (overall control of 80.75%).

The 20.9 MMBtu/hr Boiler was determined to be the BACT control technology for the cup production line's pre-expansion room with a capture efficiency of 95% and destruction efficiency of 95% (overall control of 90.25%).

History

On April 23, 2007 Genpak, LLC submitted applications to the OAQ requesting to renew its operating permit and to re-evaluate BACT for the repelletizer, Repel-1.

Permitted Emission Units and Pollution Control Equipment

- (a) Three (3) polystyrene foam tandem extruders, identified as EPS-1, EPS-2 and EPS-3, each extruding a maximum of 1,400 pounds per hour polystyrene, utilizing a Recuperative Thermal Oxidizer as control and exhausting through INCIN-1;
- (b) One (1) Recuperative Thermal Oxidizer with a rated heat input of 1.0 million British thermal units (mmBtu) per hour, and exhausting through INCIN-1. This unit will control VOC emissions of the existing foam extrusion operation;
- (c) One (1) polystyrene foam scrap regrinder, with a maximum capacity of 1266 pounds per hour, using fabric filters as control;
- (d) Three (3) fluff silos.

- (e) Mold machines, identified as M-1, molding a maximum of 833 pounds per hour of pre-expandable pentane containing resin beads, and exhausting to the interior of the building;
- (f) Pre-Expansion Room, identified as the Pre-Expansion Room, expanding a maximum of 833 pounds per hour of pre-expandable pentane containing resin beads, utilizing a boiler to control VOC emissions, exhausting to S-1, and consisting of the following:
 - (1) Material Preparation,
 - (2) Pre-Expander, identified as PE-1,
 - (3) Pre-Puff, identified as PP-1, and
 - (4) One (1) natural gas fired boiler with a rated heat input of 20.9 mmBtu per hour.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour;
 - (1) Three (3) process dryers with combined maximum heat input capacity of 1.5 million British thermal units per hour (mmBtu/hr);
 - (2) Fourteen (14) gas unit heaters with combined maximum heat input capacity of 2.0 mmBtu per hour;
 - (3) Three (3) air makeup units with combined maximum heat input of 8.2 mmBtu per hour;
- (b) The following VOC and HAP storage container: Vessels storing lubricating oils, hydraulic oils, machining oils and machining fluids with capacities less than forty cubic meters (40m³);
- (c) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6; [326 IAC 8-3-2] [326 IAC 8-3-5]
- (d) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment; [326 IAC 6-3]
- (e) Closed loop heating and cooling systems;
- (f) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (g) Paved and unpaved roads and parking lots with public access; [326 IAC 6-4 and 326 IAC 6-5]
- (h) Enclosed systems for conveying plastic raw materials and plastic finished goods;
- (i) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower;
- (j) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying and woodworking operations; [326 IAC 6-3] and

- (k) Other activities or categories of activities with emissions equal to or less than insignificant thresholds:
 - (1) One (1) 30,000 gallons storage tank, constructed on December 1, 1998, containing the blowing agents (confidential information), designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.
- (l) APET-1 Plastic Extruder, constructed in 1998, with a maximum production rate of 2,100 pounds per hour of polystyrene sheets. This process does not use a VOC blowing agent.
- (m) APET-1 Plastic Extruder, constructed in 2003, with a maximum production rate of 2,100 pounds per hour of polystyrene sheets. This process does not use a VOC blowing agent

Existing Approvals

Since the issuance of Part 70 Operating Permit No. T143-11375-00016 on March 20, 2002, the source has been issued the following approval:

- (a) First Administrative Amendment No. 143-20750-00016, issued on August 8, 2005.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

The following terms and conditions from previous approvals have been revised in this Significant Source Modification SSM No. 143-25032-00016 and Part 70 Operating Permit Renewal No. T143-24660-00016 since the BACT has been re-evaluated. In addition, SECTION D.2 has been included in SECTION D.1 since both production lines are controlled by the same control equipment. Subsequent SECTION has been re-numbered accordingly. New language is **bolded** and deletions are ~~struck through~~ for emphasis:

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (a) Food trays production line:
 - (a) (1) Three (3) polystyrene foam tandem ~~Extruders~~ **extrusion operations** identified as EPS-1, EPS-2 and EPS-3, each extruding a maximum of 1,400 pounds per hour polystyrene **consisting of the following**; ~~utilizing a Recuperative Thermal Oxidizer as control and exhausting through INCIN-1;~~
 - (A) One (1) polystyrene foam scrap regrinder, identified as Re grind-1 with a maximum capacity of 1266 pounds per hour, using fabric filters as control.
 - (B) Three (3) fluff silos.
 - (C) One polystyrene scrap repelletization, identified as Repel-1.

The repelletizer, Repel-1 VOC emissions are primarily controlled by a 20.9 MMBtu/hour Boiler, exhausting to stack S-1. Alternatively, the emissions can be controlled by the 1.0 MMBtu/hr Recuperative Thermal Oxidizer, exhausting

through INCIN-1;

- (b) ~~One (1) Recuperative Thermal Oxidizer with a rated heat input of 1.0 million British thermal units (mmBtu) per hour, and exhausting through INCIN-1. This unit will control VOC emissions of the existing foam extrusion operation; and~~
- (c) ~~One (1) polystyrene foam scrap regrinder, with a maximum capacity of 1266 pounds per hour, using fabric filters as control.~~

(b) Cup production line:

- (1) Mold machines, identified as M-1, molding a maximum of 833 pounds per hour of pre-expandable pentane containing resin beads and exhausting to the interior of the building,
- (2) Pre-Expansion Room, identified as the Pre-Expansion Room, expanding a maximum of 833 pounds per hour of pre-expandable pentane containing resin beads, utilizing a boiler to control VOC emissions, exhausting to S-1, and consisting of:
 - (A) Material Preparation,
 - (B) Pre-Expander, identified as PE-1,
 - (C) Pre-Puff, identified as PP-1, and
 - (D) One (1) natural gas fired boiler with a rated heat input of 20.9 mmBtu per hour.

(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 2-7-5(1)]

D.1.1 Volatile Organic Compounds (VOC) BACT and Minor PSD Limits [326 IAC 8-1-6] [326 IAC 2-2]

Pursuant to Significant Source Modification 143-12416-00016, issued on December 05, 2000, and 326 IAC 8-1-6, the Best Available Control Technology (BACT) for the polystyrene foam extrusion operation (including EPS-1, EPS-2, and EPS-3) has been determined to be VOC emission control by a recuperative thermal oxidizer controlling exhaust from the repelletizer for the polystyrene foam extrusion operation (including EPS-1, EPS-2 and EPS-3). The BACT requires a 85% capture efficiency and a 95% destruction efficiency through the utilization of a RTO which is equivalent to VOC emissions from the polystyrene foam extrusion of less than 170.43 tons per twelve (12) consecutive month period. The source shall meet the following:

- (a) ~~The recuperative thermal oxidizer shall be used at all times that the polystyrene foam repelletizing process is in operation.~~
- (b) ~~That usage of VOC, delivered to the polystyrene foam extrusion operations, (including EPS-1, EPS-2 and EPS-3) shall be limited to 906.66 tons per 12 month consecutive period. This is equivalent to VOC emissions of 170.43 tons per 12 month consecutive period from the polystyrene foam extrusion (including EPS-1, EPS-2 and EPS-3). During the first 12 months of operation, VOC usage shall be limited such that the total VOC used divided by accumulated months of operation shall not exceed the limits specified.~~

(a) Pursuant to 326 IAC 8-1-6, the Best Available Control Technology (BACT) and SSM No. 143-25032-00016, for the food trays production line emission units shall be the following:

- (1) The VOC emissions from the polystyrene foam scrap repelletizer, Repel-1 shall be controlled by either the 20.9 MMBtu/hour Boiler or the 1.0 MMBtu/hr RTO. Each of the boiler and the RTO shall have a minimum destruction efficiency of 95%.
- (2) The capture system for the repelletizer, Repel-1 shall have a minimum capture efficiency of 85%.
- (3) The blowing agent input to the three (3) polystyrene foam extrusion operations (EPS-1, EPS-2 and EPS-3) shall be limited to 906.66 tons per 12 month consecutive period.
- (4) No add-on controls are required for the fluff silos.

Compliance with this condition shall limit the combined VOC emissions to 170.43 tons per 12 month consecutive period from the Extrusion, Warehouse, Thermoform, Repelletizer and the Fluff Silos.

(b) Pursuant to Significant Source Modification 143-11382-00016, issued on February 10, 2000, and 326 IAC 8-1-6, the Best Available Control Technology (BACT), for the Pre-Expansion Room shall be the following:

- (1) The blowing agent input to the Foam Cup Production Line, shall be limited to 182 tons per 12 consecutive month period, with compliance at the end of each month. This blowing agent input shall limit the VOC emissions from the Pre-Expansion Room and Mold Machines (M-1) to 64.36 tons of VOC emissions per 12 consecutive month period.
- (2) The VOC emissions from the Pre-Expansion Room shall be controlled by the 20.9 MMBtu/hour Boiler. The boiler shall have a minimum destruction efficiency of 95%. The Boiler shall be used at all times that the Pre-Expansion Room is in operation.
- (3) The capture system for the Pre-Expansion Room shall have a minimum capture efficiency of 95%.
- (4) No add-on controls are required for the Mold Machines, identified as M-1.

Compliance with this condition shall satisfy the requirements of 326 IAC 8-1-6 (General Reduction Requirements). Compliance with this condition shall render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

The existing permits issued to Genpak did not include PM and PM10 limits for the one polystyrene foam scrap regrinding operation with an uncontrolled PM and PM10 emissions at 831.75 tons per year, but actual emissions have never exceeded 250 tons per year sourcewide because the foam scrap grinding operation is controlled by fabric filters, and therefore, to avoid the applicability of PSD review the following conditions have been added in the permit:

D.1.2 Prevention of Significant Deterioration Minor Limits [326 IAC 2-2]

- (a) The PM emissions from the polystyrene foam scrap regrinder controlled by fabric filters shall not exceed the 54.8 pounds per hour.

- (b) **The PM10 emissions from the polystyrene foam scrap regrinder controlled by fabric filters shall not exceed the 54.8 pounds per hour.**

Compliance with this condition shall render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.1.2 3 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the polystyrene foam scrap regrind operation shall not exceed 3.02 pounds per hour when operating at a process weight rate of 1266 pounds per hour.

The pounds per hour limitation was 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:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour;} \\ P = \text{process weight rate in tons per hour}$$

D.1.3 4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.1.4 5 Particulate Matter (PM)

In order to comply with Condition D.1.2, the fabric filters for PM control shall be in operation and control emissions from the polystyrene foam scrap regrind operation at all times that this facility is in operation.

D.1.6 Volatile Organic Compound (VOC)

- (a) **In order to comply with Condition D.1.1(a), the boiler or the RTO shall control emissions from the polystyrene foam repelletizer Repel-1 at all times that the process is in operation.**
- (b) **In order to comply with Condition D.1.1(b), the boiler controlling VOC emissions from the Pre-Expansion Room shall operate at all times that the process is in operation.**
- (c) **Compliance with the pentane input limit to the Foam Cup Line required in Condition D.1.1(b) shall be determined using the following equation:**

$$B_u = \sum_{i=1}^n (E_b)_i * (P_c)_i$$

where:

- B_u** = Monthly blowing agent input, (tons/month).
- E_b** = Pre-expanded beads usage during the month, (tons/month)
- P_c** = Percentage of blowing agent in the pre-expanded beads, (%)
- n** = Number of types of pre-expanded beads used during the month
- i** = Pre-expanded bead type

Stack testing for the 1.0 MMBtu/hr RTO controlling the polystyrene foam scrap repelletizer, Repel-1 was performed on October 13, 2004. Therefore, subsequent testing for this control will

be scheduled on or before October 13, 2009 and every five (5) years from the date of the most recent valid compliance test. Condition D.1.6 Testing Requirements has been revised as follows:

D.1.6-7 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

To demonstrate compliance with the minimum 85% capture efficiency and a 95% destruction efficiency required by condition D.1.1, the Permittee performed VOC testing on October 14, 1999, utilizing Method 25 or other methods as approved by the Commissioner, to determine proper operating parameters for the thermal oxidizer, including minimum operating temperature and fan amperage that will achieve 85% capture efficiency and a 95% destruction efficiency for this thermal incinerator. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

- (a) In order to demonstrate compliance with Condition D.1.1(a) and (b), the Permittee shall perform VOC testing, including efficiency of the repelletizer Repel - 1 and Pre-Expansion Room capture systems and destruction efficiency of the 20.9 MMBtu/hr Boiler, within 60 days, but no later than 180 days after repelletizer Repel - 1 VOC emissions have been re-directed to the Boiler, utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C – Performance Testing.
- (b) In order to demonstrate compliance with Condition D.1.1(a), the Permittee shall perform VOC testing, including efficiency of the repelletizer Repel - 1 capture system and destruction efficiency of the 1.0 MMBtu/hr RTO, on or before October 13, 2009 and every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C – Performance Testing.
- (c) In order to demonstrate compliance with Conditions D.1.2 and D.1.3, the Permittee shall perform PM and PM10 testing for the fabric filters controlling the polystyrene foam scrap regrinder, within 180 days after the issuance of the Part 70 Permit Renewal No. 143-24660-00016, utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C – Performance Testing. PM10 includes filterable and condensable PM10.

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

D.1.7 Parametric Monitoring

- (a) A continuous temperature monitoring system shall be calibrated, maintained, and operated on the recuperative thermal oxidizer for measuring operating temperature when the polystyrene foam repelletizing line is in operation when venting to the atmosphere. The output of this system shall be recorded, and that temperature shall be greater than or equal to the temperature used to demonstrate compliance during the most recent compliance stack test.

The instrument used for determining the minimum operating temperature shall comply with Section C – Temperature Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

- (b) The duct pressure or fan amperage shall be observed at least once per week when the thermal oxidizer is in operation. This pressure or amperage shall be maintained with the range as established in the most recent compliant stack test.

- (c) ~~The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the reading is outside the above mentioned range for any one reading.~~

D.1.8 Visible Emissions Notations

- (a) Visible emission notations of the stack exhausts from fabric filters controlling the polystyrene foam scrap regrinder shall be performed once per day during normal daylight operations. 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 reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.9 Fabric Filters Parametric Monitoring

- (a) The Permittee shall record the pressure drop across the fabric filters controlling the polystyrene foam scrap regrinder at least once per day when the emission unit is in operation.
- (b) When, for any one reading, the pressure drop across the fabric filters is outside of the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (c) The instruments used for determining the pressure shall comply with Section C - Instrument Specifications of this permit, and shall be calibrated at least once every six (6) months.

D.1.10 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (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), or
- (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 line. 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, or leaks, or dust traces.

D.1.11 Parametric Monitoring

- (a) The Permittee shall determine the appropriate duct pressure or fan amperage from the most recent valid stack test as approved by IDEM.
- (b) The duct pressure or fan amperage shall be observed at least once per day for the Boiler or RTO whenever each control is operating. On and after the date the approved stack test results are available, the duct pressure or fan amperage shall be maintained at a minimum operating fan amperage of 12.0 amps or within the normal range as established in most recent compliant stack test.

D.1.12 Boiler Operating Temperature

In order to comply with the PSD minor limit and BACT limit in Condition D.1.1, the Permittee shall meet the following:

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the 20.9 MMBtu/hr Boiler for measuring operating temperature when controlling the VOC emissions from the repelletizer, Repel-1. For the purpose of this condition, continuous means no less than once per minute. The output of this system shall be recorded as a 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the Boiler at or above the 3-hour average temperature of 1,400°F.
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with the limits in Condition D.1.1 as approved by IDEM.
- (c) On and after the date the approved stack test results are available, the Permittee shall operate the Boiler at or above the 3-hour average temperature as observed during the compliant stack test.

D.1.13 RTO Operating Temperature

In order to comply with the PSD minor limit and BACT limit in Condition D.1.1, the Permittee shall meet the following:

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the 1.0 MMBtu/hr RTO for measuring operating temperature, when controlling the VOC emissions from the Repelletizer, Repel-1. For the purpose of this condition, continuous means no less than once per minute. The output of this system shall be recorded as a 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the RTO at or above the 3-hour average temperature of 1,400°F.

- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with the limits in Condition D.1.1 as approved by IDEM.
- (c) On and after the date the approved stack test results are available, the Permittee shall operate the RTO at or above the 3-hour average temperature as observed during the compliant stack test.

D.1.14 Boiler and RTO Compliance Assurance Monitoring (CAM) [40 CFR Part 64]

- (a) Pursuant to 40 CFR Part 64, the Permittee shall comply with the following Compliance Assurance Monitoring requirements for the 20.9 MMBtu/hr Boiler and the 1.0 MMBtu/hr RTO controlling the repelletizer Repel-1:

(1) **Monitoring Approach For the Capture System on the repelletizer Repel-1.**

I. Indicator	Work Practice
Measurement Approach	Inspect the operational condition of the control device and the integrity of the exhaust system from the process to the control device. Record duct pressure and fan amperage established during the most recent stack tests.
II. Indicator Range	An excursion of the duct pressure and fan amperage is identified as any finding that the integrity of the exhaust system ductwork has been compromised.
Corrective Action	Each excursion triggers an assessment of the problem, corrective action and a reporting requirement.
III. Performance Criteria	
A. Data Representativeness	Leak-free ductwork of the process will assure that all of the exhaust will reach the control device. Inspections will identify problems.
B. Verification of Operational Status	Inspection records.
C Monitoring Frequency	Once Daily
Data Collection Procedure	Record results of inspections and observations.
D. Recordkeeping	Maintain for a period of 5 years records of inspections, including dates and initials of person conducting inspection, and of corrective actions taken in response to excursions.

I. Indicator	Work Practice
E. Reporting	Number, duration, cause of any excursion and the corrective action taken.
Reporting Frequency	Quarterly

(2) **Monitoring Approach for the 20.9 MMBtu/hr Boiler and the 1.0 MMBtu/hr RTO Controlling the Repelletizer, Repel-1:**

	Indicator #1	Indicator #2	Indicator #3
I. Indicator	Boiler and RTO combustion zone temperature.	Work practice/inspection.	Performance tests
Measurement Approach	Continuously monitor the operating temperature of the Boiler and the RTO combustion zone, whichever control is used.	Inspect internal and external structural integrity of Boiler and RTO to ensure proper operation.	Conduct emissions test to demonstrate compliance with permitted destruction efficiency.
II. Indicator Range	An excursion is identified as a measurement of 50°F less than the average temperature demonstrated during the most recent compliance demonstration, or as any 3-hour period when the average temperature is less than the average temperature demonstrated during the most recent compliance demonstration.	An excursion is identified as any finding that the structural integrity of the Boiler and the RTO has been jeopardized and it no longer operates as designed.	An excursion is identified as any finding that the Boiler and the RTO does not meet the permitted destruction efficiency.
Corrective Action	Each excursion triggers an assessment of the problem, corrective action and a reporting requirement.	Each excursion triggers an assessment of the problem, corrective action and a reporting requirement.	Each excursion triggers an assessment of the problem, corrective action and a reporting requirement.
III. Performance Criteria			
A. Data Representativeness	Any temperature-monitoring device employed to measure the control combustion zone temperature shall be accurate to within 1.0% of temperature measured or ±1°C, whichever is greater.	Inspections of the Boiler and RTO will identify problems.	A test protocol shall be prepared and approved by the IDEM prior to conducting the performance test.
B. Verification of Operational Status	Temperatures recorded on chart paper or electronic media. The Permittee must have valid data from at least 90 percent of the hours during which the process operated.	Inspection records.	Not applicable.
C. QA/QC Practices and Criteria	Validation of temperature system conducted annually. Acceptance criteria ± 20°F.	Not applicable.	EPA test methods approved in protocol.
D. Monitoring Frequency	Measured continuously	External Inspection – annually Internal inspection – annually.	Once every five years.
Data Collection Procedure	Recorded at least every 15-minutes on a chart or electronic media.	Record results of inspections and observations.	Per approved test method.

	Indicator #1	Indicator #2	Indicator #3
Averaging Period	Not applicable if using any measured value as indicator; Three hours if using 3-hour average as indicator.	Not applicable.	Not applicable.
E. Record Keeping	Maintain for a period of 5 years records of chart recorder paper or electronic media and corrective actions taken in response to excursions.	Maintain for a period of 5 years records of inspections, including dates and initials of person conducting inspection, and of corrective actions taken in response to excursions.	Maintain a copy of the test report for 5 years or until another test is conducted. Maintain records of corrective actions taken in response to excursions.
F. Reporting	Number, duration, cause of any excursion and the corrective action taken.	Number, duration, cause of any excursion and the corrective action taken.	Submit test protocol and notification of testing to IDEM at least 35 days prior to test date. Submit test report 45 days after conducting a performance test.
Frequency	Quarterly.	Annually.	For each performance test conducted.

(b) Pursuant to 40 CFR Part 64, the Permittee shall comply with the following Compliance Assurance Monitoring requirements for the 20.9 MMBtu/hr Boiler controlling the Pre-Expansion Room:

(1) **Monitoring Approach For the Capture System on the Pre-Expansion Room.**

I. Indicator	Work Practice
Measurement Approach	Inspect the operational condition of the control device and the integrity of the exhaust system from the process to the control device. Record duct pressure and fan amperage established during the most recent stack tests.
II. Indicator Range	An excursion of the duct pressure and fan amperage is identified as any finding that the integrity of the exhaust system ductwork has been compromised.
Corrective Action	Each excursion triggers an assessment of the problem, corrective action and a reporting requirement.
III. Performance Criteria	
A. Data Representativeness	Leak-free ductwork of the process will assure that all of the exhaust will reach the control device. Inspections will identify problems.
B. Verification of Operational Status	Inspection records.

C. Monitoring Frequency	Once Daily
Data Collection Procedure	Record results of inspections and observations.
D. Recordkeeping	Maintain for a period of 5 years records of inspections, including dates and initials of person conducting inspection, and of corrective actions taken in response to excursions.
E. Reporting	Number, duration, cause of any excursion and the corrective action taken.
Reporting Frequency	Quarterly

(2) Monitoring Approach For The 20.9 MMBtu/hr Boiler Controlling the Pre-Expansion Room:

	Indicator #1	Indicator #2	Indicator #3
I. Indicator	Boiler combustion zone temperature.	Work practice/inspection.	Performance test
Measurement Approach	Continuously monitor the operating temperature of the Boiler combustion zone.	Inspect internal and external structural integrity of Boiler to ensure proper operation.	Conduct emissions test to demonstrate compliance with permitted destruction efficiency.
II. Indicator Range	An excursion is identified as a measurement of 50°F less than the average temperature demonstrated during the most recent compliance demonstration, or as any 3-hour period when the average temperature is less than the average temperature demonstrated during the most recent compliance demonstration.	An excursion is identified as any finding that the structural integrity of the Boiler has been jeopardized and it no longer operates as designed.	An excursion is identified as any finding that the Boiler does not meet the permitted destruction efficiency.
Corrective Action	Each excursion triggers an assessment of the problem, corrective action and a reporting requirement.	Each excursion triggers an assessment of the problem, corrective action and a reporting requirement.	Each excursion triggers an assessment of the problem, corrective action and a reporting requirement.
III. Performance Criteria			
A. Data Representativeness	Any temperature-monitoring device employed to measure the Boiler combustion zone temperature shall be accurate to within 1.0% of temperature measured or +1°C, whichever is greater.	Inspections of the Boiler system will identify problems.	A test protocol shall be prepared and approved by the IDEM prior to conducting the performance test.
B. Verification of Operational Status	Temperatures recorded on chart paper or electronic media. The Permittee must have valid data from at least 90 percent of the hours during which the process operated.	Inspection records.	Not applicable.

	Indicator #1	Indicator #2	Indicator #3
C. QA/QC Practices and Criteria	Validation of temperature system conducted annually. Acceptance criteria $\pm 20^{\circ}\text{F}$.	Not applicable.	EPA test methods approved in protocol.
D. Monitoring Frequency	Measured continuously	External Inspection – annually Internal inspection – annually.	Once every five years.
Data Collection Procedure	Recorded at least every 15-minutes on a chart or electronic media.	Record results of inspections and observations.	Per approved test method.
Averaging Period	Not applicable if using any measured value as indicator. Three hours if using 3-hour average as indicator.	Not applicable.	Not applicable.
E. Record Keeping	Maintain for a period of 5 years records of chart recorder paper or electronic media and corrective actions taken in response to excursions.	Maintain for a period of 5 years records of inspections, including dates and initials of person conducting inspection, and of corrective actions taken in response to excursions.	Maintain a copy of the test report for 5 years or until another test is conducted. Maintain records of corrective actions taken in response to excursions.
F. Reporting	Number, duration, cause of any excursion and the corrective action taken.	Number, duration, cause of any excursion and the corrective action taken.	Submit test protocol and notification of testing to IDEM at least 35 days prior to test date. Submit test report 45 days after conducting a performance test.
Frequency	Quarterly.	Annually.	For each performance test conducted.

D.1.15 Fabric Filters Compliance Assurance Monitoring (CAM) [40 CFR Part 64]

Pursuant to 40 CFR Part 64, the Permittee shall comply with the following Compliance Assurance Monitoring requirements for the Fabric Filters controlling the polystyrene foam scrap regrinder (Regrind-1):

(a) **Monitoring Approach -**

PARAMETER	INDICATOR NO. 1	INDICATOR NO. 2	INDICATOR NO. 3
I. Indicator Measurement Approach	PM/ and PM10 Concentration	Visible Emissions	Fabric Filters Condition
	U.S. EPA Method 5 and Method 201A or other Methods approved by the Commissioner – Fabric Filters for Regrind-1	Method 9 visual observations.	Visual inspection.
II. Indicator Range	PM/PM10 emissions limit of 54.8 pounds/hr each Pressure drop range of 1.0 to 6.0 inches	Abnormal emissions are observed	An excursion is defined as failure to perform the monthly inspection.
III. Performance Criteria			
A. Data Representativeness	Stack Testing	Procedures addressed in Method 9	Fabric Filters inspected visually for leaks.
B. QA/QC Practices and Criteria	U.S. EPA Method 5 and Method 201A or other Methods approved by the	Use of a certified visible emission observer.	Trained personnel perform inspections and maintenance.

PARAMETER	INDICATOR NO. 1	INDICATOR NO. 2	INDICATOR NO. 3
	Commissioner – Fabric Filters for Regrind-1		
C. Monitoring Frequency	Once every 5 years.	once daily when Regrind-1 is operating unless inclement weather.	Monthly
D. Data Collection Procedures	U.S. EPA Method 5, Method 201A or other Methods approved by the Commissioner	Daily visual observations are recorded	Results of inspections and maintenance activities performed are recorded in the maintenance log.
E. Record Keeping	Maintain for a period of 5 years until another test is conducted. Maintain for a period of 5 years of corrective actions taken in response to the pressure drop excursion	Maintain for a period of 5 years records of visible emission notations	Maintain for a period of 5 years of corrective actions taken in response to excursions.
F. Reporting	Submit test protocol and notification of testing to IDEM at least 35 days prior to test date. Submit test report 45.		
Frequency	For each performance test conducted.		

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

D.1.816 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1 and ~~D.1.7~~ **D.1.1, D.1.12 and D.1.13**, the Permittee shall maintain records in accordance with (1) through (6 4) below. Records maintained for (1) through (6 4) shall be taken monthly and shall be complete and sufficient to establish compliance with the usage of the blowing agent limits and/or the VOC emission limits established in Conditions D.1.1 and ~~D.1.7~~ **D.1.1, D.1.2 and D.1.13**.
- ~~(1) The amount and VOC content of each material used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used;~~
 - ~~(2) A log of the dates of use;~~
 - (3) (1) The total usage of the blowing agent in food trays production line for each month;**
 - (2) The total usage of pentane at the cup production line as calculated using equation in Condition D.1.6(c) for each month**
 - ~~(4) (3) The weight of VOCs emitted for each compliance period;~~
 - (5) (4) The Permittee shall maintain continuous temperature records of the (on a three-hour average basis) of the Boiler and the RTO and the three-hour average temperature used to demonstrate compliance during the most recent compliant stack test.**
 - (5) The Permittee shall maintain once per day records of the boiler and RTO duct pressure or fan amperage. The Permittee shall include in its daily record when duct pressure or fan amperage is not taken and the reason for**

the lack of duct pressure or fan amperage notation (e.g. the process being controlled by the boiler and the RTO did not operate that day, etc.).

~~The continuous temperature records for the catalytic incinerator when the polystyrene foam repelletizing line is in operation when venting to the atmosphere and the temperature used to demonstrate compliance during the most recent compliance stack test; and~~

- ~~(6) Weekly records of the duct pressure or fan amperage.~~
- (b) **To document compliance with Condition D.1.8, the Permittee shall maintain a daily record of visible emission notations of the stacks exhaust from the fabric filters controlling the polystyrene foam scrap regrinder. 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).**
- (c) **To document compliance with Condition D.1.9, the Permittee shall maintain a daily record of the pressure drop across the fabric filters controlling the polystyrene foam scrap regrinder. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).**
- (d) **To document compliance with Condition D.1.14 the Permittee shall maintain records of the RTO and boiler, including the capture system inspections. These records shall include as a minimum, dates, initials of the person performing the inspections, results, and corrective actions taken in response to excursions as required by the CAM for the repelletizer, repel-1 and the Pre-Expansion Room (if any are required).**
- (e) **To document compliance with Condition D.1.15 the Permittee shall maintain records of the fabric filters inspections. These records shall include as a minimum, dates, initials of the person performing the inspections, results, and corrective actions taken in response to excursions as required by the CAM for the scrap regrinder, Re grind-1 (if any are required).**
- (f) **All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.**

D.1.917 Reporting Requirements

- (a) **A quarterly summary of the monthly blowing agent usage from the three (3) polystyrene extrusion operations (EPS-1, EPS-2 and EPS-3) information to document compliance with Conditions D.1.1(a). shall be submitted to the addresses listed in Section C—General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.**
- (b) **A quarterly summary of the monthly pentane input to the Foam Cup Line to document compliance with Condition D.1.1(b).**

The reports required in (a) and (b) of this condition shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

The entire Section D.2 has been included in Section D.1, since emission units in both Sections will be controlled by the same control unit:

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (a) Mold machines, identified as M-1, molding a maximum of 833 pounds per hour of resin injected with pentane, and exhausting to the interior of the building,
- (b) Pre-Expansion Room, identified as the Pre-Expansion Room, expanding a maximum of 833 pounds per hour of resin injected with pentane, utilizing a boiler to control VOC emissions, exhausting to S-1, and consisting of:
 - (1) Material Preparation,
 - (2) Pre-Expander, identified as PE-1,
 - (3) Pre-Puff, identified as PP-1, and
 - (4) One (1) natural gas fired boiler with a rated heat input of 20.9 mmBtu per hour.

(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 2-7-5(1)]

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

That pursuant to Significant Source Modification 143-11382-00016, issued on February 10, 2000, and 326 IAC 8-1-6, the Best Available Control Technology (BACT), boiler on the Pre-Expansion Room shall be in operation at all times that the Pre-Expansion Room is in operation. When operating, the boiler on the Pre-Expansion Room shall maintain a minimum operating temperatures of 1,400° F, or a temperature as determined in compliance tests in order to maintain at least 95% capture efficiency and a 95% destruction efficiency through the utilization of a boiler. These efficiencies are equivalent to VOC emissions from the Foam Cup Line (including M-1 and the Pre-Expansion Room) of less than 64.36 tons per twelve (12) consecutive month period for the maximum blowing agent usage of 182 tons per twelve (12) consecutive month period (see page 4 of 6 of TSD Appendix A). Compliance tests were completed on November 16, 2000 and resulted in a minimum operating temperature of 1,400° F. The source shall meet the following:

- (1) The usage of the blowing agent, delivered to the Foam Cup Line, shall be limited to 182 tons per 12 consecutive month period. The material usage limit is equivalent to 64.36 tons of VOC emissions per 12 consecutive month period. During the first 12 months of operation, the usage of the blowing agent shall be limited such that the total amount of blowing agent used divided by the accumulated months of operation shall not exceed the limits specified.
- (2) The boiler controlling VOC emissions from the Pre-Expansion Room shall be in operation at all times that the Pre-Expansion Room is in operation; and
- (3) no add-on controls for the Mold Machines, identified as M-1.

Operation at or above this minimum temperature ensures compliance with the BACT requirements of 326 IAC 8-1-6.

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

D.2.4 Operating Temperature

- (a) The boiler controlling VOC emissions from the Pre-Expansion Room shall operate at all times that the process is in operation. When operating, the boiler controlling VOC emissions from the Pre-Expansion Room shall maintain a minimum operating temperature of 1,400 °F and minimum operating fan amperage of 12.0 amps during operation, as approved by IDEM. The temperature correlates to a 95% capture efficiency and a 95% destruction efficiency based on the stack capture and destruction efficiency test.
- (b) When operating the boiler controlling VOC emissions from the Pre-Expansion Room to achieve compliance with 326 IAC 8-1-6, the boiler controlling VOC emissions from the Pre-Expansion Room shall maintain a minimum 95% capture efficiency and a 95% destruction efficiency. These efficiencies and the use of the boiler controlling VOC emissions from the Pre-Expansion Room are required by the Best Available Control Technology (BACT) for the Pre-Expansion Room.

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

D.2.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

To demonstrate compliance with the minimum 95% capture efficiency and a 95% destruction efficiency required by condition D.2.1, the Permittee performed VOC testing on November 16, 2000, utilizing Method 25 or other methods as approved by the Commissioner, to determine proper operating parameters for the thermal oxidizer, including minimum operating temperatures and fan amperage that will achieve 95% capture efficiency and a 95% destruction efficiency for this boiler. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

D.2.6 Parametric Monitoring

- (a) A continuous temperature monitoring system shall be calibrated, maintained, and operated on the boiler controlling VOC emissions from the Pre-Expansion Room for measuring operating temperature when the Pre-Expansion Room is in operation when venting to the atmosphere. The output of this system shall be recorded, and that temperature shall be greater than or equal to the temperature used to demonstrate compliance during the most recent compliance stack test.
- The instrument used for determining the minimum operating temperature shall comply with Section C Temperature Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.
- (b) The duct pressure or fan amperage shall be observed at least once per week when the boiler controlling VOC emissions from the Pre-Expansion Room is in operation. This pressure or amperage shall be maintained with the range as established in the most recent compliant stack test.
- (c) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the reading is outside the above mentioned range for any one reading.

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

~~D.2.7 Fuel Type and Usage~~

~~Pursuant to 326 IAC 12, NSPS (40 CFR 60 Subpart Dc - Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units), the monthly amount and type of each fuel burned on the one (1) Foam Cup Line natural gas fired boiler shall be measured.~~

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

~~D.2.8 Record Keeping Requirements~~

- ~~(a) To document compliance with Conditions D.2.1 and D.2.6 the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the usage of the blowing agent limits and/or the VOC emission limits established in Conditions D.2.1 and D.2.6.~~
- ~~(1) The amount and VOC content of pentane in each pre-expanded beads material used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used;~~
- ~~(2) A log of the dates of use;~~
- ~~(3) The total usage of the blowing agent for each month;~~
- ~~(4) The weight of VOCs emitted for each compliance period;~~
- ~~(5) The continuous temperature records for the catalytic incinerator when the Pre-Expansion Room is in operation when venting to the atmosphere and the temperature used to demonstrate compliance during the most recent compliance stack test; and~~
- ~~(6) Weekly records of the duct pressure or fan amperage.~~
- ~~(b) To document compliance with Condition D.2.7 9, the Permittee shall maintain records of monthly amount and type of fuel burned.~~
- ~~(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.~~

~~D.2.9 Reporting Requirements~~

~~A quarterly summary of the information to document compliance with Condition D.2.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.~~

The following Conditions D.3.1, D.3.2 and D.3.7 have been deleted from the Part 70 permit because the storage vessel for which these conditions apply have been removed from operation. Therefore, these conditions are no longer applicable:

~~D.3.1 General Provisions Relating to Standards of Performance for New Stationary Sources [326 IAC 12-1][40 CFR 60, Subpart A]~~

~~The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart Kb.~~

D.3.2 Volatile Organic Liquid Storage Vessel [326 IAC 12][40 CFR 60.110, Subpart Kb]

Pursuant to 40 CFR Part 60.110b, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels), the one (1) thirty thousand 30,000 gallon storage tank for the blowing agent (confidential information), with a design capacity of greater than 75 cubic meters, but less than 151 cubic meters and a maximum true vapor pressure of less than 15.0 kPa shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

D.3.7 Record Keeping Requirements [326 IAC 12]

- (a) To document compliance with Condition D.3.2, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken daily and shall be complete and sufficient to establish compliance with the monitoring requirements established in Condition D.3.2.
- (1) The owner or operator of each vessel subject to this rule shall keep all records for the life of the vessel.
 - (2) The owner or operator of the one (1) thirty thousand 30,000 gallon storage tank for the blowing agent (confidential information) shall maintain a record and submit to the department a report containing the following information for the vessel:
 - (A) The vessel identification number,
 - (B) The vessel dimensions, and
 - (C) The vessel capacity.
- (b) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
S-1		30	1.5	2000	2000

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Scott County

Pollutant	Status
PM ₁₀	attainment
PM _{2.5}	attainment
SO ₂	attainment
NOx	attainment
8-hour Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) 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 emissions and NOx are considered when evaluating the rule applicability relating to ozone. Scott County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NOx were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (b) Scott County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions. See the State Rule Applicability – Entire Source section.
- (c) Scott County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (d) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD or Emission Offset applicability.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed revision, after consideration of all enforceable limits established in the effective permits:

Pollutant	Emissions (tons/year)
PM	8.78
PM10	8.78
SO ₂	0.05
VOC	201.75
CO	7.69
NO _x	9.15

- (1) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because volatile organic compound (VOC) is emitted at less than 250 tons per year, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	831.77
PM-10	832.45
SO ₂	0.1
VOC	439.86
CO	7.7
NO _x	9.2

HAPs	tons/year
Hexane	1.648E-01
Benzene	1.922E-04
Dichlorobenzene	1.099E-04
Formaldehyde	6.866E-03
Toluene	3.112E-04
Lead	4.566E-05
Cadmium	1.007E-04
Chromium	1.282E-04
Manganese	3.479E-05
Nickel	1.922E-04
Worst Single HAP	1.64E-01
Combined HAPs	1.7E-01

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of VOC and PM10 are each equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than 100 tons per year.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2005 OAQ emission data.

Pollutant	Emissions (tons/year)
PM	0.0
PM10	0.0
SO ₂	0.0
VOC	109.0
CO	3.0
NO _x	4.0

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/emission unit	Potential To Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Repelletizer	-	-	-	27.81	-	-	-
Extrusion, Warehouse and Thermoform	-	-	-	29.91	-	-	-
Fluff Silos	-	-	-	113.40	-	-	-
Foam Cup Line - Pre-Expansion Room	-	-	-	9.8	-	-	-
Foam Cup Line - Mold Machines	-	-	-	54.60	-	-	-
Regrinding	240.0	240.0	-	-	-	-	-
Boiler	0.2	0.7	0.1	0.5	7.7	9.2	0.16 worst single HAP 0.17 combined HAPs
Total Emissions	240.2	240.7	0.1	236.02	7.7	9.2	0.16 worst single HAP 0.17 combined HAPs
PSD Threshold Levels	250	250	250	250	250	250	-

- (a) This existing stationary source is not major for PSD because the emissions of each criteria pollutant are less than two hundred fifty (<250) tons per year, and it is not one of the twenty-eight (28) listed source categories.

Federal Rule Applicability

The following federal rules are applicable to the source:

- (a) Compliance Assurance Monitoring Requirements, 40 CFR Part 64:
 Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to emission units that involve a pollutant-specific emission unit and meet the following criteria:
 - (1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
 - (2) is subject to an emission limitation or standard for that pollutant; and
 - (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to emission unit involved:

Emission Unit	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Regrinding	Baghouse	Y	831.76 PM/PM10	41.59 PM/PM10	100	Y	N
Repelletizing	Boiler or RTO	Y	140.85 VOC	27.81 VOC	100	Y	N
Pre-Expansion Room	Baghouse	Y	100.1 VOC	9.8 VOC	100	N	N
3 Fluff Silos	None	N	113.4 each 37.8 tons/yr VOC	-	-	-	-

- (1) The regrinding process is subject to CAM requirements for PM/PM10 as shown in the above table. The source has submitted a CAM plan as part of the Part 70 Renewal application, and the CAM requirements are included in this Part 70 Permit Renewal.
 - (2) The Repelletizing process is subject to CAM requirements for VOC as shown in the above table. The source has submitted a CAM plan as part of the Part 70 Renewal application, and the CAM requirements are included in this Part 70 Permit Renewal.
 - (3) The Pre-Expansion Room is subject to CAM requirements for VOC as shown in the above table. The source has submitted a CAM plan as part of the Part 70 Renewal application, and the CAM requirements are included in this Part 70 Permit Renewal.
 - (4) The three fluff silos are not subject to CAM since each unit has an uncontrolled VOC PTE less than the major level of 100 ton/year, and they are not using control equipment.
- (b) New Source Performance Standard, 326 IAC 12, (40 CFR 60)
- (1) 40 CFR 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. The 20.9 MMBtu/hr natural gas-fired boiler, constructed on November 16, 2000, is used to produce steam to pre-heat and expand the foam sheets and pellets used to make expandable foam food trays and cups, and is also used as a VOC control equipment. This boiler is subject to New Source Performance Standard, 326 IAC 12, (40 CFR 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units). This boiler only burns natural gas, therefore pursuant to Part 60.48c(g)(i), record keeping of fuel type and amount of fuel used is required. Pursuant to Part 60.48c(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.
 - (2) 40 CFR Part 60.11b, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.

- (A) The 30,000 gallon blowing agent storage tank, constructed on December 1, is not subject to the New Source Performance Standard, 326 IAC 12 (40 CFR 60.116b, Subpart Kb) because it is a pressure vessel designed to operate in excess of 204.9 kPa and without emissions to the atmosphere. Pursuant to 40 CFR 60.110(d)(2), this subpart does not apply to this type of storage vessel.
- (B) The vessels storing lubricating oils, hydraulic oils, machining oils and machining fluids categorized under the insignificant activities are not subject to the New Source Performance Standard, 326 IAC 12 (40 CFR 60.116b, Subpart Kb) because each vessel capacity is less than forty cubic meters (40m³).
- (c) There are no other New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (d) National Emission Standards for Hazardous Air Pollutants (NESHAPs), 326 IAC 20 and 40 CFR Part 63:
 - (1) 326 IAC 20-6 and 40 CR Part 63, Subpart T - National Emission Standards for Halogenated Solvent Cleaning. The degreasing operations are not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), Subpart T, because the degreasing operations categorized under the insignificant activities use mineral spirits as their solvent, which is not one of the listed solvents applicable to this subpart.
- (e) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

- (a) 326 IAC 2-2 (Prevention of Significant Deterioration)
This source is not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration), because the potential emissions of any pollutant after control are less than two hundred fifty (250) tons per year and it is not in one of the 28 listed source categories for this rule.
- (b) 326 IAC 2-4.1 (New Sources Toxics Control)
This source, constructed after July 27, 1997, does not have the potential to emit (PTE) 10 tons per year of any single HAP or 25 tons per year of any combination of HAPs, therefore the requirements of 326 IAC 2-4.1 do not apply.
- (c) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-3(b)(3), starting in 2006 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
 - (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
 - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326

IAC 2-7-1 (32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

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

- (d) 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%) 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.

State Rule Applicability – Individual Facilities

- (a) 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)
Pursuant to 326 IAC 6-2 as determined in Significant Source Modification 143-11382-00016, issued on February 10, 2000, the natural gas fired boiler on the Pre-Expansion Room, rated at 20.9 million British thermal units per hour is limited by the following equation from 326 IAC 6-2-4:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = maximum allowable particulate matter (PM) emitted per MMBtu heat input
Q = total source maximum indirect heater input = natural gas fired boiler on the Pre-Expansion Room = 20.9 MMBtu/hr

$$Pt = 1.09/20.9^{0.26} = 0.49 \text{ lbs PM/MMBtu}$$

compliance calculation:

$(0.17 \text{ tons PM/yr}) * (\text{hr}/20.9 \text{ MMBtu}) * (\text{yr}/8,760 \text{ hrs}) * (2,000 \text{ lbs/ton}) = 0.002 \text{ lbs PM/MMBtu}$

Actual lbs PM/MMBtu (0.002) are less than allowable lbs PM/MMBtu (0.49), therefore the natural gas fired boiler on the Pre-Expansion Room will comply with the requirements of 326 IAC 6-2-4.

- (b) 326 IAC 6-3-2 (Process Operations)
Pursuant to 326 IAC 6-3-2 as determined in CP-143-9047-00016, issued on April 3, 1998 the particulate matter (PM) emissions shall be limited by the following:

Interpolation 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:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

- (1) The polystyrene foam scrap regrinder shall be limited by the following:

$$E = 4.10 * 0.633^{0.67} \quad \text{where } E = 3.02 \text{ lb/hr} \\ = 3.02 \text{ lbs/hr} \quad P = 0.633 \text{ tons/hr}$$

The fabric filter shall be in operation at all times the polystyrene foam scrap regrinder is in operation, in order to comply with this limit.

- (2) The grinding and machining operations listed under the insignificant activities including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying and woodworking operations shall be limited by the following:

- (A) 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; or

The control devices shall be in operation at all times the grinding and machining operations are in operation, in order to comply with this limit

- (c) 326 IAC 8-1-6 (General Reduction Requirements):
The repelletizer identified as Repel-1 and the Pre-Expansion Room are subject to 326 IAC 8-1-6 (General Reduction Requirements).

- (1) Repelletizer, identified as Repel-1 - See Appendix B for detailed BACT analysis for the repelletizer, identified as Repel-1.

Current BACT:

The VOC BACT determined for the scrap polystyrene Repelletizer was the VOC control by a Recuperative Thermal Oxidizer with a capture efficiency of 85% and 95% destruction efficiency (overall control of 80.75%).

New BACT Analysis (See detailed Appendix B for detailed BACT Analysis):
Continued use of the capture system with an efficiency of 85% when routing the VOC emissions from the repelletizer, identified as Repel-1 to the existing Boiler. The Boiler shall meet a destruction efficiency of 95%.

- (2) Pre-Expansion Room - Pursuant to SSM 143-11382-00016, issued on February 10, 2000, the BACT for this facility is the use of a boiler to control the VOC emissions with a capture system efficiency of 95% and boiler's destruction efficiency of 95%.

- (3) The three (3) fluff silos each has potential VOC emissions of 37.8 tons per year. A BACT analysis has been conducted for these fluff silos (see detailed Appendix B for detailed BACT analysis), and the BACT determined for these fluff silos is no control.

- (d) 326 IAC 8-3-2 and 326 IAC 8-3-5 (Cold Cleaner Degreaser)
The Degreasing operation that do not exceed 145 gallons per 12 months, under the insignificant activities is subject to 326 IAC 8-3-2 and 326 IAC 8-3-5 for Cold Cleaner Degreasers, which are as follows:
 - (1) Equip the cleaner with a cover;
 - (2) Equip the cleaner with a facility for draining cleaned parts;
 - (3) Close the degreaser cover whenever parts are not being handled in the cleaner;
 - (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
 - (5) Provide a permanent, conspicuous label summarizing the operation requirements;
 - (6) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

The owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

- (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
- (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:

- (1) Close the cover whenever articles are not being handled in the degreaser.
- (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
- (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring and determination requirements applicable to this source are as follows:

- (a) The 20.9 MMBtu/hr Boiler or the 1.0 MMBtu/hr RTO shall be operated at all times the repelletizer, identified as Repel-1 is in operation.

- (b) The 20.9 MMBtu/hr Boiler shall be operated at all times the Pre-Expansion Room is in operation.
- (c) VOC testing including capture and destruction efficiency testing shall be performed for the Boiler and the RTO to determine the operating temperature and fan amperage that will achieve 95 % destruction efficiency, and capture efficiencies of 95% and 85% for the pre-expansion room and repellizer capture systems, respectively.
- (d) The 20.9 MMBtu/hr Boiler or the RTO controlling the repelletizer, identified as Repel-1 and shall maintain a minimum operating temperature of 1,400 °F and minimum operating fan amperage of 12.0 amps during operation.
- (e) The 20.9 MMBtu/hr Boiler controlling the pre-expansion room shall maintain a minimum operating temperature of 1,400 °F and minimum operating fan amperage of 12.0 amps during operation.
- (f) A continuous temperature monitoring system shall be calibrated, maintained and operated on the 20.9 MMBtu/hr Boiler for measuring operating temperature when the repelletizer, identified as Repel-1 and the Pre-Expansion Room are in operation.

The above requirements are required to ensure compliance with the 326 IAC 6-3 (Particulate Emissions for Manufacturing Processes), 326 IAC 8-1-6 (General Reduction Requirements) and to render 326 IAC 2-2 (PSD) not applicable.

Recommendation

The staff recommends to the Commissioner that the Significant Source Modification and Part 70 Operating Permit Renewal be approved. This recommendation is based on the following facts and conditions:

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 April 23, 2007. Additional information was received on June 28, 2007; July 19, 2007; July 25, 2007; and July 30, 2007.

Conclusion

The operation of this expandable polystyrene foam food trays and cups production plant shall be subject to the conditions of the **Significant Source Modification No. 143-25032-00016** and **Part 70 Operating Permit Renewal No. 143-24660-00016**.

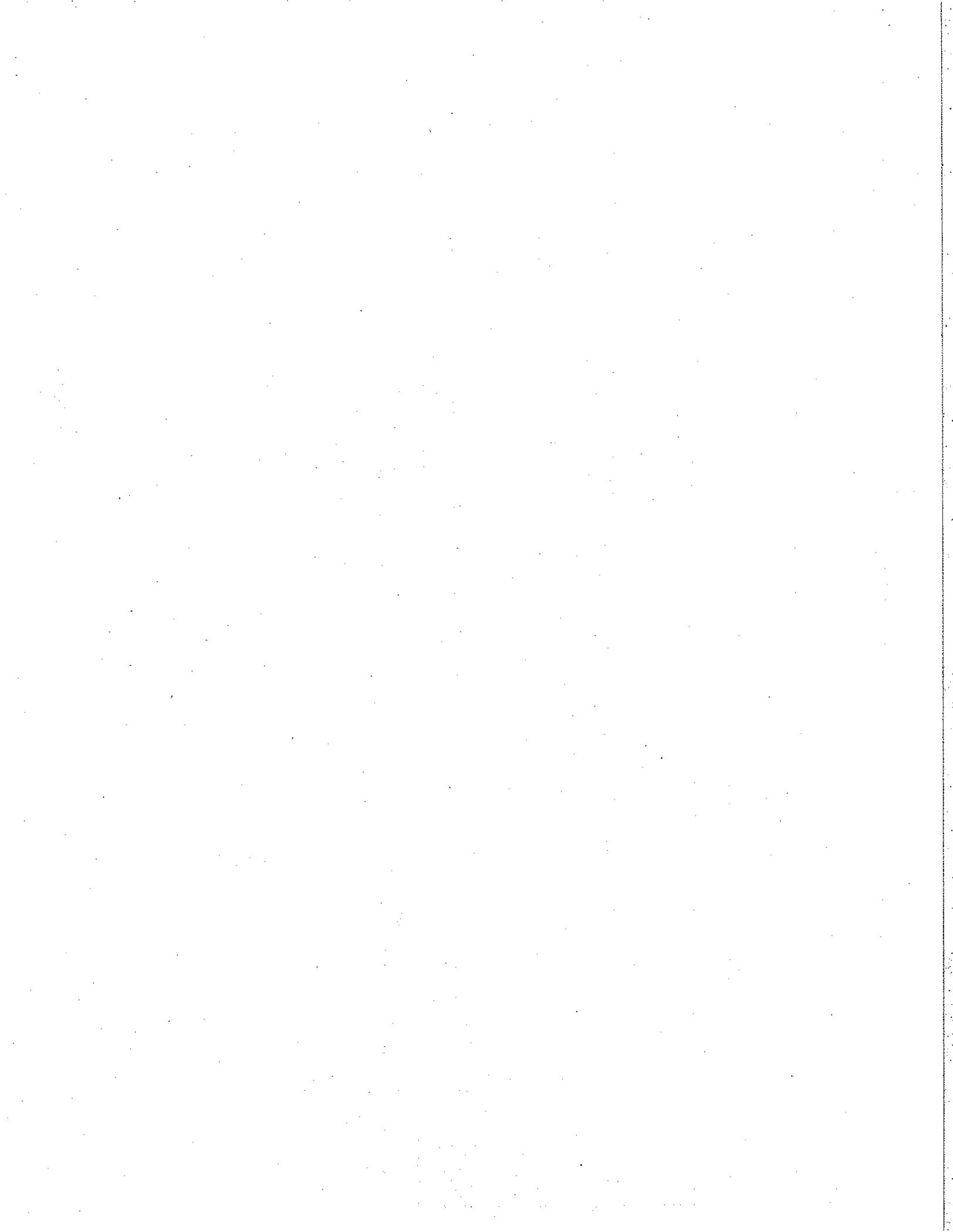
Appendix A: Emission Calculations
VOC Emission Calculations

Company Name: Genpak, LLC
 Address City IN Zip: 845 South Elm Street, Scottsburg, IN 47170
 Part 70 Renewal: 143-24660
 Pit ID: 143-00016
 Permit Reviewer: Aida De Guzman
 Date of Application: 23-Apr-07

CONTROLLED POTENTIAL TO EMIT													
Emission Units	Control Efficiency for Repelletizer and Pre-Expansion Room		Extrusion, Warehouse, and Thermoform		Repelletizer		Fluff Silos		Pre-Expansion Room		Mold Machines		TOTAL
	% Capture	% Destruction	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	
EPS-1	85	95	2.27	9.97	2.12	9.04	8.63	37.80					57.04
EPS-2	85	95	2.27	9.97	2.12	9.04	8.63	37.80					57.04
EPS-3	85	95	2.27	9.97	2.12	9.04	8.63	37.80					57.04
Foam Cup Line	95	95							2.23	9.8	1.48	54.60	64.40
TOTAL													235.43

METHODOLOGY

Extrusion PTE = blowing agent, lb/hr * % blowing agent loss * 8760 hrs/yr/2000 lbs/ton
 Repelletizer PTE = blowing agent, lb/hr * (blowing agent retained in the foam, 1- % of blowing agent loss) * % of foam reground * no. of unit, 1 * % blowing agent loss during repelletization * 8760 hrs/yr/2000 lbs/ton



Appendix A: Emission Calculations
VOC Emission Calculations

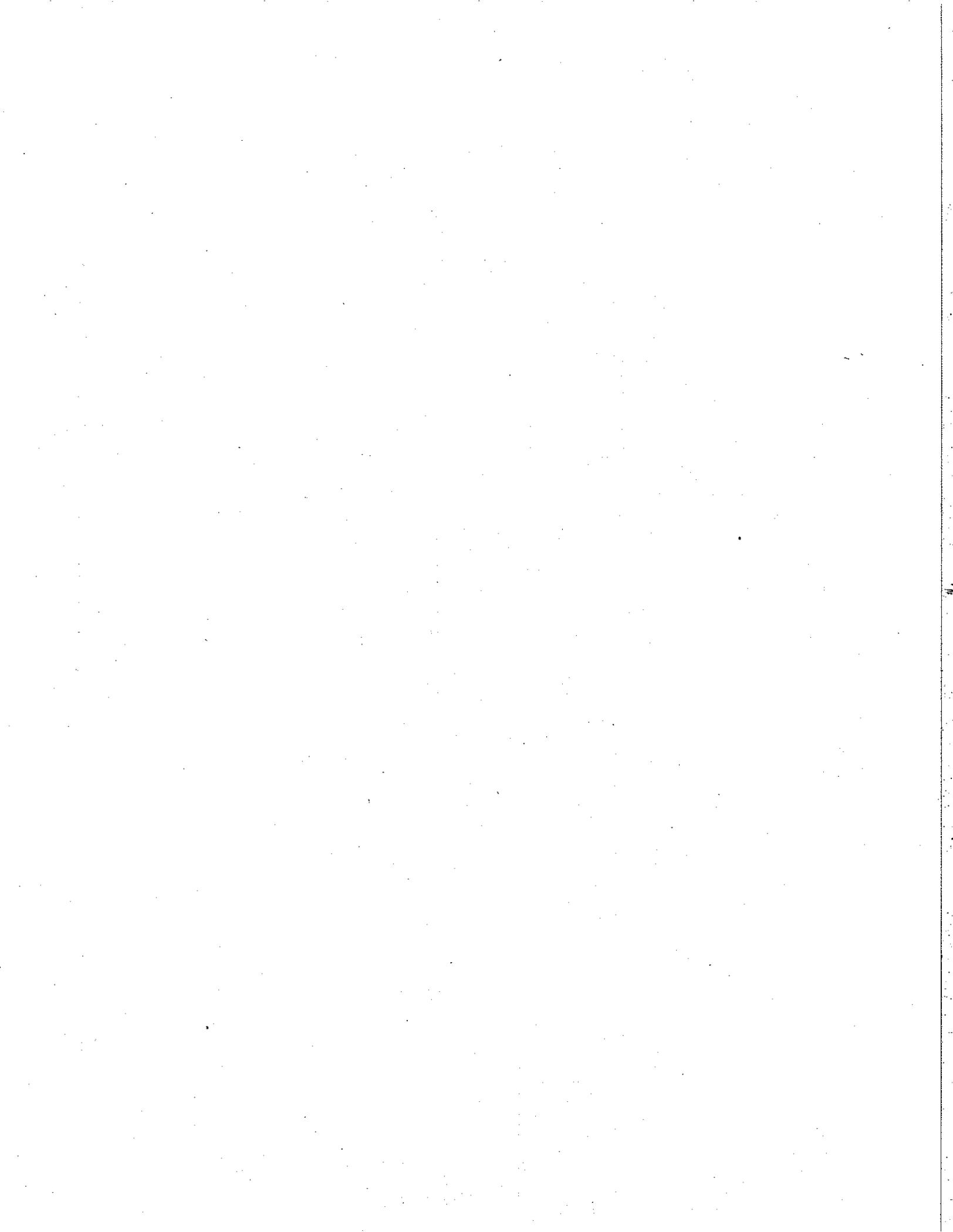
Company Name: Genpak, LLC
 Address City IN Zip: 845 South Elm Street, Scottsburg, IN 47170
 Part 70 Renewal: 143-24660
 Pit ID: 143-00016
 Permit Reviewer: Aida De Guzman
 Date of Application: 23-Apr-07

Emission Units	Throughput		UNCONTROLLED POTENTIAL TO EMIT											
	Description	Maximum (lb/hr)	Extrusion, Warehouse, and Thermoform		Repelletizer		Fluff Silos		Pre-Expansion Room		Mold Machines		TOTAL	
		(lb/hr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
EPS-1	Virgin													
	Regrind													
	Blowing Agent		2.26	9.90	10.72	46.95	8.63	37.80					21.61	94.65
EPS-2	Virgin													
	Regrind													
	Blowing Agent		2.26	9.90	10.72	46.95	8.63	37.80					21.61	94.65
EPS-3	Virgin													
	Regrind													
	Blowing Agent		2.26	9.90	10.72	46.95	8.63	37.80					21.61	94.65
Foam Cup Line													35.32	154.70
TOTAL													100.21	438.86

Note: Information regarding percentage of blowing agent used, retention in the foam, and loss during a process is confidential.

METHODOLOGY

Extrusion PTE = blowing agent, lb/hr * % blowing agent loss * 8760 hrs/yr/2000 lbs/ton
 Repelletizer PTE = blowing agent, lb/hr * % blowing agent retained in the foam scrap, * % of foam scrap reground * no. of unit, 1 * % blowing agent loss during repelletization * 8760 hrs/yr/2000 lbs/ton



**Appendix A: Emission Calculations
Particulate Emission Calculations**

Company Name: Genpak, LLC
Address City IN Zip: 845 South Elm Street, Scottsburg, IN 47170
Part 70 Renewal: 143-24660
Pit ID: 143-00016
Permit Reviewer: Aida De Guzman
Date of Application: 23-Apr-07

	Install Date	Throughput			PM/PM10 Potential Emissions			
		Description	Average Rate (lb/hr)	Maximum Rate (lb/hr)	Uncontrolled		Controlled	
					lb/hr	ton/yr	lb/hr	ton/yr
EPS-1	04/17/98	Regrind			63.30	277.25	3.17	13.88
EPS-2	12/08/98	Regrind	Confidential	Confidential	63.30	277.25	3.17	13.88
EPS-3		Regrind			63.30	277.25	3.17	13.88
TOTAL					189.90	831.76	9.51	41.65

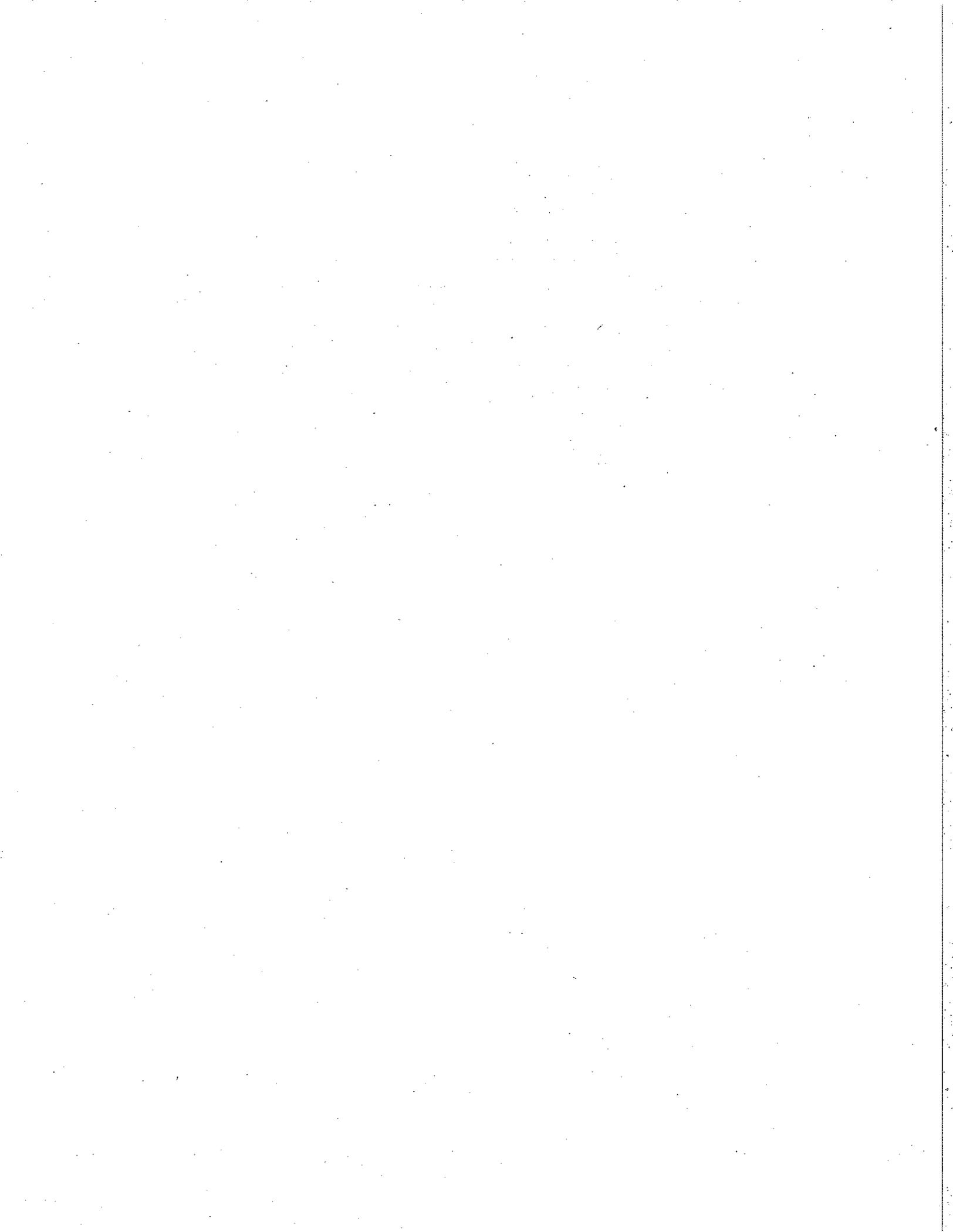
Note: For PSD Minor limit, the PM and PM10 emissions have been adjusted to 240 tons/yr versus PTE of 41.59 for each pollutant (PM and PM10) discounting the PTE from insignificant activities.

Note: There is only one regrinder. However, its throughput was divided into three based on each of the three extruders' throughput.

METHODOLOGY:

When transferring materials 5% carryover occurs. (i.e. 5% of material could escape if not controlled)

Controlled potential emissions calculated using 95% efficiency fabric filter.



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

Company Name: Genpak, LLC
Address City IN Zip: 845 South Elm Street, Sottsburg, IN 47170
Part 70 Renewal: 143-24660
Plt ID: 143-00016
Reviewer: Alda De Guzman
Date of Application: 4/23/2007

Potential Throughput
 MMCF/yr

183.1

Boiler

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	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

Note: The Boiler is used to produce steam for use in the production of plastic cups and as a VOC control equipment. The steam is used in the Pre-Exp: pre-heat and expand the foam sheets and pellets used to make plastic cups.

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

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

Company Name: Genpak, LLC
Address City IN Zip: 845 South Elm Street, Sotsburg, IN 47170
Part 70 Renewal: 143-24660
Pit ID: 143-00016
Reviewer: Aida De Guzman
Date of Application: 4/23/2007
Potential Throughput
MMCF/yr 183.1

		HAPs - Organics			
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.922E-04	1.099E-04	6.866E-03	1.648E-01	3.112E-04

		HAPs - Metals			
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	4.577E-05	1.007E-04	1.282E-04	3.479E-05	1.922E-04
Worst single HAP					0.16
Combined HAPs					0.17

Methodology is the same as page 1.

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 B

VOC CONTROL TECHNOLOGY / STATE BACT ANALYSIS for the POLYSTYRENE FOAM REPELLETIZERS

GENPAK, LLC

Source Background and Description

Source Location: 845 South Elm Street, Scottsburg, Indiana 47170
County: Scott
SIC Code: 3089
SSM No.: 143-25032-00016
Permit Reviewer: Aida De Guzman

Genpak, LLC submitted a permit application for the following modifications to polystyrene foam extrusion operation:

Genpak, LLC, requested to use the 1.0 MMBtu/hr recuperative thermal oxidizer (RTO) as back-up control equipment for the polystyrene foam scrap repelletizer, Repel-1. Currently, this RTO is used to control VOC emissions from the repelletizer, instead the repelletizer VOC emissions will be re-routed to the existing 20.9 MMBtu/hr boiler which is proposed to be used as the main control equipment. The RTO was determined to be the BACT control technology for the repelletizer, with a capture system efficiency of 85% and RTO destruction efficiency of 95% (overall control of 80.75%).

The 20.9 MMBtu/hr Boiler was determined to be the BACT control technology for the pre-expansion room, with a capture efficiency of 95% and destruction efficiency of 95% (overall control of 90.25%).

The following is a breakdown of the allowable VOC emissions from the polystyrene foam scrap repelletizer, based on current 326 IAC 8-1-6 BACT requirements:

Emission Unit		Uncontrolled VOC Emissions
EPS-1	Repelletizer	46.96
EPS-2		46.96
EPS-3		46.96

The following BACT analysis is a re-evaluation of the current VOC BACT for the polystyrene foam scrap repelletizer, identified as Repel-1 using the "Top Down BACT Guidance" published by the U.S. EPA, Office of Air Quality Planning and Standards, March 15, 1990.

Several sources were consulted regarding similar operations and associated controls implemented. These sources include the U.S. EPA RACT/BACT/LAER Clearinghouse database for process type (99.014 - Polystyrene Foam Products Manufacturing), recent permit applications, USEPA, air permitting authorities, and equipment vendors.

BACT Definition and Applicability

Federal guidance on BACT requires an evaluation that follows a "top down" process. In this approach, the applicant identifies the best-controlled similar source on the basis of controls required by the regulation or the permit, or the controls achieved in practice. The highest level of the control is then evaluated for technical feasibility.

The five basic steps of a top-down BACT analysis are listed below:

Step 1: Identify Potential Control Technologies

The first step is to identify potentially "available" control options for each emission unit and for each pollutant under review. Available options should consist of a comprehensive list of those technologies with a potentially practical application to the emissions unit in question. The list should include lowest achievable emission rate (LAER) technologies, innovative technologies and controls applied to similar source categories.

Step 2: Eliminate Technically Infeasible Options

The second step is to eliminate technically infeasible options from further consideration. To be considered feasible, a technology must be both available and applicable. It is important in this step that any presentation of a technical argument for eliminating a technology from further consideration be clearly documented based on physical, chemical, engineering and source-specific factors related to safe and successful use of the controls.

Step 3: Rank The Remaining Control Technologies By Control Effectiveness

The third step is to rank the technologies not eliminated in Step 2 in order of descending control effectiveness for each pollutant of concern. If the highest ranked technology is proposed as BACT, it is not necessary to perform any further technical or economic evaluation, except for the environmental analyses.

Step 4: Evaluate The Most Effective Controls And Document The Results

The fourth step entails an evaluation of energy, environmental, and economic impacts for determining a final level of control. The evaluation begins with the most stringent control option and continues until a technology under consideration cannot be eliminated based on adverse energy, environmental, or economic impacts.

Step 5: Select BACT

The fifth and final step is to select as BACT the most effective of the remaining technologies under consideration for each pollutant of concern. BACT must, at a minimum, be no less stringent than the level of control required by any applicable New Source Performance Standard (NSPS) and National Emissions Standard for Hazardous Air Pollutants (NESHAP) or state regulatory standards applicable to the emission units included in the permits.

BACT for Volatile Organic Compound (VOC)

Genpak, LLC currently employs a Recuperative Thermal Oxidizer (RTO) to control the VOC emissions from the polystyrene foam scrap repelletizer, identified as Repel-1 with a total

uncontrolled PTE of 140.88 tons of VOC per year. The Permittee requested to use the 1.0 MMBtu/hr recuperative thermal oxidizer (RTO) as back-up control equipment for the polystyrene foam scrap repelletizer, Repel-1. The RTO was established as VOC BACT in SSM 143-12416-00016, issued on December 5, 2000 for the polystyrene foam scrap repelletizer. The source proposes to re-route the VOC emissions from the repelletizer to the existing 20.9 million British thermal units per hour (MMBtu/hr) Boiler with an overall control of 90.25% due to the high costs involve in operating both control systems (RTO and Boiler) at all times. This Boiler was established as VOC BACT in SSM 143-11382-00016, issued on February 10, 2000 for the Pre-Expansion Room Pre-Expander PE-1 and Pre-Puff PP-1 with a total uncontrolled PTE of 100.1 tons of VOC per year.

Step 1 – Identify Control Options

The following control technologies were identified and evaluated to control VOC emissions from repelletizers:

- (a) Boiler
- (b) Catalytic Oxidation
- (c) Recuperative, Regenerative Thermal Oxidation
- (d) Thermal Oxidation with Catalyst
- (e) Flare
- (f) Absorption systems
- (g) Adsorption systems

Step 2 – Eliminate Technically Infeasible Control Options

The test for technical feasibility of any control option is whether it is both available and applicable to reducing VOC emissions from the existing polystyrene foam repelletizers. The previously listed information resources were consulted to determine the extent of applicability of each identified control alternative.

- (a) Boiler - boilers are used as afterburners to incinerate air contaminants. The primary function of a boiler is to supply steam or hot water and whenever it is used as a control device it conflicts with this function, one or both of its purposes will suffer. Like any other types of controls, boilers require a properly design exhaust system to convey air pollutants effectively from the point of origin to the boiler firebox. Contaminated gases may be introduced into the boiler firebox in two ways:
 - (1) Through the burner, serving as combustion air, or
 - (2) Downstream of the burner, serving as secondary air.

This control option is considered technically feasible in controlling the VOC from the polystyrene foam repelletizer. The source currently employs a boiler in controlling the VOC from the polystyrene foam pre-expansion room; consisting of pre-expander (PE-1) and pre-puff (PP-1).

- (b) Catalytic Oxidation - In a catalytic oxidizer, a catalyst is used to lower the activation energy for oxidation. When a preheated gas stream is passed through a catalytic oxidizer, the catalyst bed initiates and promotes the oxidation of VOCs without being permanently altered itself. In catalytic oxidization, combustion occurs at significantly lower temperatures

than that of direct flame units and can also achieve a destruction efficiency of 95%. However, steps must be taken to ensure complete combustion. The types of catalysts used include platinum, platinum alloys, copper chromate, copper oxide, chromium, manganese and nickel. These catalysts are deposited in thin layers on an inert substrate, usually a honeycomb shaped ceramic.

Based upon a review of the previously listed information resources, there is no known application to control VOC emissions from a polystyrene foam repelletizer. The optimal working temperature range for VOC oxidation catalysts is approximately 850 °F - 1,100 °F with a minimum exhaust gas stream temperature of 500 °F for minimally acceptable VOC control. Exhaust gases from the polystyrene foam repelletizers are far below the minimum 500 °F threshold for effective operation of the oxidation catalyst system. In addition, there is a concern of particulate polystyrene settling on the bed, which would lower the overall control efficiency, as well as cause the risk of a fire if the pentane were to collect. Consequently, this control option is considered technically infeasible for this application and will not be considered any further in this BACT analysis.

- (c) **Recuperative, Regenerative Thermal Oxidation** - An efficient thermal oxidizer design must provide adequate residence time for complete combustion, sufficiently high temperatures for VOC destruction and adequate velocities to ensure proper mixing without quenching combustion. The type of burners and their arrangement affect combustion rates and residence time. The more thorough the contact between the flame and VOC, the shorter the time required for complete combustion. Natural gas is required to ignite the flue gas mixtures and maintain combustion temperatures. Typically, a heat exchanger upstream of the oxidizer uses the heat content of the oxidizer flue gas to preheat the incoming VOC-laden stream to improve the efficiency of the oxidizer.

Of all the VOC control technologies evaluated, thermal oxidization is least affected by waste stream characteristics. A properly designed thermal oxidizer can handle almost all solvent mixtures (except for fluorinated or chlorinated solvents) and concentrations and therefore meet all regulatory standards. A thermal oxidizer normally provides a VOC destruction efficiency of at least 98%. Thermal Oxidation control technology is technically feasible to control VOC emissions from polystyrene foam repelletizer operation. The source currently employs a Recuperative Thermal Oxidizer to control the polystyrene foam repelletizers.

- (d) **Thermal Oxidation with Catalyst** - This system was deemed infeasible due to the fouling of catalyst from the possible collection of polystyrene on the catalyst, which would lead to a reduced life span of the catalyst. In addition, buildup of polystyrene on the catalyst would potentially cause fires or explosions due to a build up of VOC's and natural gas in the Oxidizer, due to retention in the oxidizer. This control option is not technically feasible and has been eliminated from further consideration in this BACT analysis.

- (e) **Flare** - Flares are commonly used in industry to safely combust VOC and volatile HAPs. Flares are used extensively to dispose of (1) purged and wasted products from refineries, (2) unrecoverable gases emerging with oil from oil wells, (3) vented gases from blast furnaces, (4) unused gases from coke ovens, and (5) gaseous wastes from chemical industries. Gases flared from refineries, petroleum production, chemical industries, and to some extent, from coke ovens, are composed largely of low molecular weight hydrocarbons with high heating value. Blast furnace flare gases are largely of inert species and CO, with low heating value. Flares are also used for burning waste gases generated by sewage digesters, coal gasification, rocket engine testing, nuclear power plants with sodium/water heat exchangers, heavy water plants, and ammonia fertilizer plants."

Genpak does not qualify as any of these industries. Performing initial calculation shows that the concentrations of pentane to be burned amount to 30.545 SCFM of pentane. This is

considered infeasible based on the amount of fuel needed as stated in EPA AP-42 Chapter 13.5 in order to maintain a flare (300 BTU/SCF). The BTU value of the Pentane plus the required air in order to maintain the flare only equal 10 BTU/SCF, which makes the use of a flare technically infeasible.

This means additional fuel from another source would need to be added, such as natural gas. If natural gas were to be used then the cost would rise due to both installation costs and the additional natural gas used. Therefore, this control option has been eliminated from further consideration in this BACT analysis.

- (f) Absorption systems – Absorption is a basic chemical engineering unit operation, which is frequently referred to in the air pollution control field as "Scrubbing." It is a diffusional process involving the transfer of gas molecules to a liquid phase. Equipment used for the absorption of gases can be placed in five categories; packed tower, plate tower, spray chamber, venturi scrubber, and jet scrubber. There is no known application of this control technology in polystyrene foam production industry. Therefore this control option is considered technically infeasible for this application and will not be considered any further in this BACT analysis.
- (g) Adsorption systems – The principle of adsorption is employed primarily to prevent highly odorous or offensive organic vapors from escaping. The principal use of adsorption is for the physical adsorption of gaseous matter on solids absorbents. Two adsorber vessels are usually employed, with one adsorbing while the other is being regenerated. In reactivation, low-pressure steam is normally used to raise the temperature of the adsorbent bed and drive off the adsorbate. Steam and adsorbate are usually condensed together for recovery or disposal. There are known application of this control technology in the polystyrene foam production industry. Therefore this control option is considered technically infeasible for this application and will not be considered any further in this BACT analysis.

Step 3 – Rank Remaining Control Technologies by Control Effectiveness

Flares, Catalytic Oxidation, Absorption and Adsorption Systems identified in Step 2 were eliminated as not technical feasibility in controlling VOC emissions from the polystyrene foam production plant. Boilers and Thermal Oxidation systems were determined to be technically feasible to control operations at a polystyrene foam production industry. The source currently employs these types of control systems in controlling VOCs in their operations.

Step 4 – Evaluate the Most Effective Controls and Document Results

Boilers and Thermal Oxidation systems were determined to be technically feasible to control operations at a polystyrene foam production industry, since the source currently employs these types of control systems in controlling VOCs in their operations. The Recuperative Thermal Oxidizer (RTO) currently controls the polystyrene foam scrap repelletizer which is subject to 326 IAC 8-1-6 (General Reduction Requirements). The source proposed to re-route the emissions from the repelletizer to the Boiler, which currently control the Pre-Expansion Room which includes the Pre-Expander PE-1 and Pre-Puff PP1.

Step 5 – Select BACT

A review of USEPA's RACT/BACT/LAER Clearinghouse, Indiana air permits and sources permitted by other states agencies, identified the following previous BACT determinations with respect to expandable polystyrene foam products manufacturing:

Repelletizers					
Plant/ Facility Description	RBLC ID or Permit #	Date Issued and State	Emission Unit	VOC Control Technology/VOC Emissions Limit	Basis of Limit or Control
Proposed: Genpak, LLC Expandable Polystyrene (EPS) cups molding	SSM No. 143- 25032	Proposed (Indiana)	Repelletizer Repel -1	Boiler Capture system Efficiency - 85% Destruction Efficiency - 95%	State BACT
Current limit: Genpak, LLC	SSM No. 143- 12416-00016	12/5/2000	Repelletizer Repel -1	RTO Capture system Efficiency - 85% Destruction Efficiency - 95%	State BACT
Dart Container Corporation Expandable Polystyrene (EPS) cups and containers molding	V-06-029	9/30/2002 Kentucky	9 Reclaim Extruders (Repelletizers)	RTO Capture system Efficiency - 100 % Destruction Efficiency - 95%	PSD BACT
Dart Container Corporation Expandable Polystyrene (EPS) cups	36-05117	12/14/2001 Pennsylvania	Blenders, holding tanks, pre-expander	Boiler Capture system Efficiency - 90 % Destruction Efficiency - 95%	LAER
Tuscarora Inc.	421-89E	04/02/2000 Michigan	Pre-expansion and pre-puff molding and storage	Low VOC beads	
Tenneco Packaging AVI Packaging sheets and plank foam	CP 099-9807- 00028	10/29-1998 (Indiana)	Foam scrap lines	RTO Capture system - 98% Destruction Efficiency - 95%	State BACT

Dart Container Corporation, Kentucky - This source has the most stringent BACT requiring a capture system efficiency of 100% for the reclaim extruders (repelletizers) and 95% destruction efficiency from a RTO. Dart Container Corporation is comparable with Genpak, LLC, because both companies are manufacturing expandable polystyrene (EPS) food trays and foam cups and using the same blowing agent (isopentane) and controlling the same emission units (Repelletizers). Therefore, Dart Container Corporation, Kentucky will be used for further analysis in this BACT analysis.

Dart Container Corporation, Pennsylvania - This source has a LAER requiring a capture system efficiency of 90% for the blenders, holding tanks and pre-expander and 95% destruction efficiency from a Boiler. Dart Container Corporation is not comparable with Genpak, LLC, because Dart Corporation is controlling three different types of emission units (blenders, holding tanks and pre-expander) used in the cup production which utilizes pre-expandable pentane containing resin beads. Genpak, LLC repelletizing operation is used to repelletize extruded polystyrene foam scrap from the food trays production line which utilizes non-pentane polystyrene resin beads and foam scrap in the foam extrusion. Pentane is injected during the extrusion process to expand the resin

into polystyrene foam sheets. Therefore, Dart Container Corporation will not be considered in this BACT analysis.

Tuscarora Inc., Michigan - This source has a BACT requiring the use of low VOC beads for the pre-expansion and pre-puff molding and storage foam production. Tuscarora Inc., is not comparable with the Genpak, LLC, repelletizer. The Genpak, LLC repelletizer is used to repelletize extruded polystyrene foam scrap from the food trays production line that utilizes polystyrene and blowing agent (pentane) to produce the foam. However, the Genpak, LLC pre-expansion room which utilizes pre-expandable pentane containing resin beads in the cup production line (that is similar to Tuscarora) is not being re-evaluated for BACT in this SSM No. 143-25032-00016. Therefore, Tuscarora Inc., will not be considered in this BACT analysis.

Tenneco Packaging AVI, Indiana - This source has a BACT requiring a capture system efficiency of 98% for the foam scrap lines and 95% destruction efficiency from a RTO. Tenneco Packaging AVI, which manufactures packaging sheets and plank foam is not comparable with Genpak, LLC, which manufactures expandable polystyrene (EPS) foam cups. Therefore, Tenneco Packaging AVI will not be considered in this BACT analysis.

The following is the cost analysis for the current RTO controlling the polystyrene foam repelletizer, identified as Repel-1, emissions routed to the Boiler, and the upgrade of the repelletizer's capture system from 85% to 100%, to meet the Dart Container Corporation, Kentucky capture system for the repelletizer and be controlled by the existing 20.9 MMBtu/hr Boiler:

Table 1

Current Operation - Emissions from Repelletizer, Repel-1 destroyed by RTO		
ANNUALIZED COSTS		
Direct Operating Costs		
1	Operating Labor	\$12,500.00
	a. Hours of Operating Time per Shift	
	b. Cost/Employee/Hour	
	c. Operating Hours/Year	
	d. Shifts/Year @ 8.0 Hours/Shift	
2	Supervisory Labor (0.15 1)	\$1,875.00
3	Maintenance Labor & Materials (2x Operating Labor)	\$25,000.00
4	Replacement Parts (5% of Basic Capital Costs)	\$35,000.00
5	Utilities	
	a. Natural Gas	\$78,840
	MMBTU/HR Input	1
	Operating Hours/Year	8760
	Cost/MMBTU	\$9
	MMBTU/YR	8760
	b. Electricity	\$2,890.80
	HP Requirements	
	KW Requirements/Hr	5.5
	KWH/YR	48180
	Cost/KWH	\$0.06
	c. Water	
	d. Air	NA
	e. Catalyst Replacement	NA
	(20% Basic Capital Cost/5 Year)	

Current Operation - Emissions from Repelletizer, Repel-1 destroyed by RTO		
	Total Direct Operating Costs	\$156,105.80
Indirect Operating Costs		
6	Overhead (60% of Oper. Labor & Maintenance)	22500
7	Property Tax (0.01 Capital Cost)	\$7,000.00
8	Insurance (0.01 Capital Cost)	\$7,000.00
9	Administrative Costs (0.02 Capital Cost)	\$14,000.00
10	Capital Cost Recovery Factor (7% INT, 10 Years)	
=	0.14238	NA
	Total Indirect Operating Costs	\$50,500.00
Heat Recovery Credit		
1	Heat Input - Annually - MMBTU/Yr	
2	Unit Heat Efficiency - Heat Output of Control Device	
3	Heat Available for Recovery	
4	Heat Exchanger Efficiency for Heat Recovery	
5	Percent Heat Recovery/Year (6 Months)	
6	Heat Value Recovered - MMBTU/Yr	
7	Cost/MMBTU	
	Total Annualized Costs	\$206,606
	Uncontrolled VOC Emissions (VOC lb/hr x Operating Hrs x 1/2,000 lb/ton)	140.85
	Control Efficiency	80.75%
	TPY VOC Removed	113.73
	Emission Rate - TPY - After Controls	27.12
	Cost Effectiveness, \$/Ton VOC Removed	\$1,817

Note:

- The Office of Management and Budget (OMB) mandates that a real annual interest rate of 7% be used in the Capital Recovery Factor (CRF) computation.
- Please note that prices do not include water costs.
- No cost recovery factor for the Thermal Oxidizer has been included as the unit has been installed already. However Parts replacement, taxes and insurance costs are included for the Thermal Oxidizer.

Fluff Silos -

The existing RTO does not have the capacity to control the 113.4 tons per year of VOC emissions from the fluff silos. It will be cost prohibitive to factor in the calculation the retrofit cost of the existing RTO or to add a new RTO to control the silos VOC emissions.

The current cost effectiveness of using the RTO to control the polystyrene foam scrap repelletizer, Identified as Repel -1 is very low at \$1,817, with an annual operating cost of \$206,606. However, the source

proposed to use the RTO as an alternative control to the Boiler, because of the high operating costs associated in operating two (2) control systems (RTO and Boiler) at all times.

The following table is the cost effectiveness of installing a 100% capture system similar to the Dart Container Corporation, Kentucky, since this similar source's BACT is the most stringent:

Table 2

Upgrading of the Repelletizer, Repel-1 to 100% Capture. Repelletizer, Repel -1 VOC emissions will be Routed to the Boiler for Control		
CAPITAL COSTS		
Purchased Equipment (Permanent Total Enclosure to Capture 100%)		
a.	Basic Equipment & Auxiliaries (A)	
	300 Feet of 304 Stainless Steel Ductwork	\$14,165.15
	4 304 Stainless Steel Elbows	\$2,241.55
PTE for Repelletizer	2000 sq ft of lexan	\$24,000.00
	4 1000 scfm fans*	\$6,000.00
	1500 ft of 304 Stainless Steel ducting	\$70,830.00
	6 304 Stainless Steel Elbows	\$3,362.32
	1 LEL flame ionization detector	\$10,845.00
	1 smoke alarm	\$75.00
	1 alarm siren	\$131.00
	1 8 x 8 ft Bump door (a)	\$1,830.00
	1 personnel door 3x7 ft (a)	\$575.00
	differential Pressure Monitor	\$487.00
	Surge Damper	\$22.00
	Alarm	\$20.00
	Simco Phoenix Static Elimination Blower	\$1,074.00
c.	Taxes (0.03 A)	\$4,069.74
d.	Freight (0.05 A)	\$6,782.90
	Total Purchased Equipment Cost (B)	\$146,510.66
Direct Installation Costs		
a.	Foundations & Supports (0.08 B)	\$11,720.85
b.	Erection & Handling (0.14 B)	\$20,511.49
c.	Electrical (0.04 B)	\$5,860.43
d.	Piping (0.02 B)	\$2,930.21
e.	Insulation (0.01 B)	\$1,465.11
f.	Painting (0.01 B)	\$1,465.11
g.	Site Preparation (0.01 B)	\$1,465.11
h.	Capture/Conveyance	
	300 Feet of 304 Stainless Steel Ductwork (0.5)	7082.575378
	4 304 Stainless Steel Elbows (0.5)	1120.773924
	2000 square feet of lexan	\$5,800.00
	4 36" fans	\$18,000.00
	1000 ft of ducting	\$1,032.00
	1 LEL flame ionization detector	\$2,700.00
	1 8 x 8 ft Bump door (a)	\$2,575.00
	1 personnel door 3x7 ft (a)	\$415.00

Upgrading of the Repelletizer, Repel-1 to 100% Capture. Repelletizer, Repel -1 VOC emissions will be Routed to the Boiler for Control			
		Differential Pressure Monitor	\$200.00
		Surge Damper	\$20.00
		Alarm	\$60.00
i.		Shut Down Cost - Not Applicable	
Total Direct Installation Costs			\$84,423.65
Total Direct Costs (TDC) (Purchased + Installation)			\$230,934.32
Indirect Costs			
Engineering & Supervision (0.1 B)			\$14,651.07
Construction & Field Expenses (0.05 B)			\$7,325.53
Contractor Fees (0.10 B)			\$14,651.07
Start Up Costs (0.02 B)			\$2,930.21
Performance Test (0.01 B)			\$1,465.11
Contingency (0.03 B)			\$4,395.32
Total Indirect Costs			\$45,418.31
Total Installed Capital Cost			\$276,352.62
ANNUALIZED COSTS			
Direct Operating Costs			
Operating Labor			15,000
a.		Hours of Operating Time per Shift	
b.		Cost/Employee/Hour	
c.		Operating Hours/Year	
d.		Shifts/Year @ 8.0 Hours/Shift	
Supervisory Labor (0.15 1)			1,875
Maintenance Labor & Materials (2x Operating Labor)			30000
Replacement Parts (5% of Basic Capital Costs)			\$126,317.63
Utilities			
a.		Natural Gas	\$1,647,756
		MMBTU/HR input	20.9
		Operating Hours/Year	8760
		Cost/MMBTU	\$9
		MMBTU/YR	183084
b.		Electricity	\$5,256.00
		HP Requirements	
		KW Requirements/Hr	10
		KWH/YR	87600
		Cost/KWH	\$0.06
c.		Water	
d.		Air	NA
e.		Catalyst Replacement	NA

Upgrading of the Repelletizer, Repel-1 to 100% Capture. Repelletizer, Repel -1 VOC emissions will be Routed to the Boiler for Control		
(20% Basic Capital Cost/5 Year)		
Total Direct Operating Costs		\$1,826,204.63
Indirect Operating Costs		
Overhead (60% of Oper. Labor & Maintenance)		27000
Property Tax (0.01 Capital Cost)		\$25,263.53
Insurance (0.01 Capital Cost)		\$25,263.53
Administrative Costs (0.02 Capital Cost)		\$50,527.05
Capital Cost Recovery Factor (7% INT, 10 Years)		
=	0.14238	\$39,347.09
Total Indirect Operating Costs		\$167,401.19
Heat Recovery Credit		
1	Heat Input - Annually - MMBTU/Yr	
2	Unit Heat Efficiency - Heat Output of Control Device	
3	Heat Available for Recovery	
4	Heat Exchanger Efficiency for Heat Recovery	
5	Percent Heat Recovery/Year (6 Months)	
6	Heat Value Recovered - MMBTU/Yr	
7	Cost/MMBTU	
Total Annualized Costs		\$2,269,958
Uncontrolled VOC Emissions (VOC lb/hr x Operating Hrs x 1/2,000 lb/ton)		
		240.95
Control Efficiency		
		93.02%
TPY VOC Removed		
		224.14
Emission Rate - TPY - After Controls		
		16.81
Cost Effectiveness, \$/Ton VOC Removed		\$10,127.41

Note: - The Office of Management and Budget (OMB) mandates that a real annual interest rate of 7% be used in the Capital Recovery Factor (CRF) computation.

- The Boiler currently has the needed capacity to include the extra emissions without reconfiguration according to Genpak LLC.
- No cost recovery factor for the Boiler has been included as the unit has been installed already. However Parts replacement, taxes and insurance costs are included for the Boiler.

Currently, the source captures emissions from the polystyrene foam scrap repelletizer, identified as Repel - 1 by maintaining a negative pressure and using hood and ventilation system. This system based on IDEM, Compliance Data Section testing information is only capable of capturing 85%. To match the Dart Container 100% capture efficiency, the source needs to install a Permanent Total Enclosure. The cost effectiveness in the above table 2 was calculated with the assumption that the source has the space to build the Permanent Total Enclosure, which is not the case. To factor in the calculation the following aspects in the installation of the Permanent Total Enclosure, the cost effectiveness will significantly increase:

- Lost production due to down time;
- Construction of new space for the extruders;

- Utility line relocation;
- Relocation of the extruders;
- Movement of utility lines for the extruders and repelletizers;
- Contractor Costs (e.g. Labor, engineering, environmental and safety consultation, etc.);

Table 3

Using the Same Capture Efficiency of 85% for the Repelletizer, Repel - 1 Routed to the Boiler, which Currently Controls Pre-Puff, and the Pre-Expansion Room		
CAPITAL COSTS		
1	Purchased Equipment	
a.	Basic Equipment & Auxiliaries (A)	
	300 Feet of 304 Stainless Steel Ductwork	\$14,165.15
	4 304 Stainless Steel Elbows	\$2,241.55
c.	Taxes (0.03 A)	\$492.20
d.	Freight (0.05 A)	\$820.33
	Total Purchased Equipment Cost (B)	\$17,719.23
2	Direct Installation Costs	
a.	Foundations & Supports (0.08 B)	\$1,417.54
b.	Erection & Handling (0.14 B)	\$2,480.69
c.	Electrical (0.04 B)	\$708.77
d.	Piping (0.02 B)	\$354.38
e.	Insulation (0.01 B)	\$177.19
f.	Painting (0.01 B)	\$177.19
g.	Site Preparation (0.01 B)	\$177.19
h.	Capture/Conveyance	
	300 Feet of 304 Stainless Steel Ductwork (0.5)	\$7,082.58
	4 304 Stainless Steel Elbows (0.5)	\$1,120.77
i.	Shut Down Cost - Not Applicable	
	Total Direct Installation Costs	\$13,696.31
	Total Direct Costs (TDC) (Purchased + Installation)	\$31,415.55
Indirect Costs		
3	Engineering & Supervision (0.1 B)	\$1,771.92
4	Construction & Field Expenses (0.05 B)	\$885.96
5	Contractor Fees (0.10 B)	\$1,771.92
6	Start Up Costs (0.02 B)	\$354.38
7	Performance Test (0.01 B)	\$177.19
8	Contingency (0.03 B)	\$531.58
	Total Indirect Costs	\$5,492.96
	Total Installed Capital Cost	\$36,908.51

Using the Same Capture Efficiency of 85% for the Repelletizer, Repel - 1 Routed to the Boiler, which Currently Controls Pre-Puff, and the Pre-Expansion Room		
ANNUALIZED COSTS		
Direct Operating Costs		
1	Operating Labor	12,500
	a. Hours of Operating Time per Shift	
	b. Cost/Employee/Hour	
	c. Operating Hours/Year	
	d. Shifts/Year @ 8.0 Hours/Shift	
2	Supervisory Labor (0.15 1)	1,875
3	Maintenance Labor & Materials (2x Operating Labor)	25000
4	Replacement Parts (5% of Basic Capital Costs)	\$114,345.43
5	Utilities	
	a. Natural Gas	\$1,647,756
	MMBTU/HR Input	20.9
	Operating Hours/Year	8760
	Cost/MMBTU	\$9
	MMBTU/YR	183084
	b. Electricity	\$5,256.00
	HP Requirements	
	KW Requirements/Hr	10
	KWH/YR	87600
	Cost/KWH	\$0.06
	c. Water	
	d. Air	NA
	e. Catalyst Replacement	NA
	(20% Basic Capital Cost/5 Year)	
Total Direct Operating Costs		\$1,806,732.43
Indirect Operating Costs		
6	Overhead (60% of Oper. Labor & Maintenance)	22500
7	Property Tax (0.01 Capital Cost)	\$22,869.09
8	Insurance (0.01 Capital Cost)	\$22,869.09
9	Administrative Costs (0.02 Capital Cost)	\$45,738.17
10	Capital Cost Recovery Factor (7% INT, 10 Years)	
	=	0.14238
		\$5,255.03
Total Indirect Operating Costs		\$119,231.37
Heat Recovery Credit		
1	Heat Input - Annually - MMBTU/Yr	
2	Unit Heat Efficiency - Heat Output of Control Device	
3	Heat Available for Recovery	

Using the Same Capture Efficiency of 85% for the Repelletizer, Repel - 1 Routed to the Boiler, which Currently Controls Pre-Puff, and the Pre-Expansion Room		
4	Heat Exchanger Efficiency for Heat Recovery	
5	Percent Heat Recovery/Year (6 Months)	
6	Heat Value Recovered - MMBTU/Yr	
7	Cost/MMBTU	
Total Annualized Costs		\$1,962,872.31
Uncontrolled VOC Emissions (VOC lb/hr x Operating Hrs x 1/2,000 lb/ton) 240.95		
Control Efficiency		84.71%
TPY VOC Removed		204.1
Emission Rate - TPY - After Controls		36.85
Cost Effectiveness, \$/Ton VOC Removed		\$9,617.21

NOTE:

- The Office of Management and Budget (OMB) mandates that a real annual interest rate of 7% be used in the Capital Recovery Factor (CRF) computation.
- Please note that prices do not include water costs, manufacturer or contractor markup, or inflation.
- No cost recovery factor for the Boiler has been included as the unit has been installed already. However Parts replacement, taxes and insurance costs are included for the Boiler.

Fluff Silos -

The Boiler currently has the needed capacity to include the emissions from the repelletizer without reconfiguration. However, the Boiler has no capacity to include the 113.4 tons/year VOC emissions from the fluff silos. The cost effectiveness will be much higher than \$9,617.21 if the retrofit cost of the existing Boiler will be factored in the calculation to accommodate the fluff silos emissions or to add a new Boiler to control the silos VOC emissions. Therefore, it is not cost effective to control the VOC emissions from these fluff silos.

BACT Conclusion:

Upgrading the capture system of the polystyrene foam scrap repelletizer, identified as Repel - 1 from 85% to 100% by installing a Permanent Total Enclosure system is cost prohibitive at more than \$10,127, to match the most stringent BACT from Dart Container Corporation, Kentucky with 100 % capture efficiency and 95% destruction efficiency. \$10,127 per ton of VOC removed would significantly increase if the other aspects mentioned on page 11 of this BACT Analysis are factored in the cost effectiveness calculation. Therefore, the BACT for the polystyrene foam scrap repelletizer, identified as Repel - 1 will be the continued use of the capture system with an efficiency of 85% in routing the VOC emissions from the polystyrene foam scrap repelletizer, identified as Repel - 1 to the existing Boiler. Alternatively, the RTO can control the repelletizer's VOC emissions. The Boiler shall maintain its current destruction efficiency of 95%. The following is the detailed BACT requirements:

- (a) Pursuant to 326 IAC 8-1-6, the Best Available Control Technology (BACT) for the polystyrene foam scrap repelletizer, identified as Repel-1 shall be the following:
 - (1) The VOC emissions from the polystyrene foam scrap repelletizer, Repel-1 shall be controlled by either the 20.9 MMBtu/hour Boiler or the 1.0 MMBtu/hr RTO. Each of the boiler and the RTO shall have a minimum destruction efficiency of 95%.
 - (2) The capture system for the repelletizer, Repel-1 shall have a minimum capture efficiency of 85%.

(3) The blowing agent input to the three (3) polystyrene foam extrusion operations (EPS-1, EPS-2 and EPS-3) shall be limited to 906.66 tons per 12 month consecutive period.

(4) No control for the fluff silos.

Compliance with this condition shall limit the combined VOC emissions to 170.43 tons per 12 month consecutive period from the three polystyrene foam extrusion operations (EPS-1, EPS-2 and EPS-3), scrap regrind, ID Re grind-1 and scrap repelletization, ID Repel-1.

