

**CONSTRUCTION PERMIT
OFFICE OF AIR MANAGEMENT**

**Genpak Corporation
845 South Elm Street
Scottsburg, Indiana 47170**

This permit is issued to the above mentioned company (herein known as the Permittee) under the provisions of 326 IAC 2-1 and 40 CFR 52.780, with conditions listed on the attached pages.

Construction Permit No.: CP-143-9047-00016	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) and presented in the permit application.

A.1 General Information

The Permittee owns and operates a stationary polystyrene foam extrusion operation.

Responsible Official: Edward W. Rider, Jr.
Source Address: 845 South Elm Street, Scottsburg, Indiana 47170
Mailing Address: 845 South Elm Street, Scottsburg, Indiana 47170
SIC Code: 3089
County Location: Scott
County Status: Attainment for all criteria pollutants
Source Status: Part 70 Permit Program
Minor Source, under PSD Rules.

A.2 Emission Units and Pollution Control Equipment Summary

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

- (1) One (1) polystyrene foam tandem extruder, identified as EPS-1, with a maximum capacity of 1,100 pounds per hour;
- (2) One (1) CPET foam tandem extruder, identified as ECPET-1, with a maximum capacity of 900 pounds per hour;
- (3) One (1) polystyrene foam scrap regrinder, with a maximum capacity of 262 pounds per hour, using fabric filters as control;
- (4) One (1) CPET foam scrap regrinder, with a maximum capacity of 315 pounds per hour, using fabric filters as control;
- (5) Two (2) thirty thousand (30,000) gallon storage tanks containing the blowing agents (the identification of the specific blowing agents used has been requested by the source to be considered Confidential Information);
- (6) Three (3) process dryers with combined maximum heat input capacity of 1.5 million British thermal units per hour (mmBtu/hr);
- (7) Fourteen (14) gas unit heaters with combined maximum heat input capacity of 2.0 million British thermal units per hour (mmBtu/hr);
- (8) Three (3) air makeup units with combined maximum heat of 8.2 million British thermal units per hour (mmBtu/hr);
- (9) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;
- (10) Packaging lubricants and greases;
- (11) The following equipment related to manufacturing activities not resulting in the emission of HAPs; brazing equipment, cutting torches, soldering equipment, welding equipment;
- (12) Closed loop heating and cooling systems;

- (13) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (14) Paved and unpaved roads and parking lots with public access;
- (15) Enclosed systems for conveying plastic raw materials and plastic finished goods;
- (16) Blowdown for any of the following: sight glass, boiler; compressors; pumps; and cooling tower; and
- (17) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6;

A.3 Part 70 Permit Applicability

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).

This new source shall apply for a Part 70 (Title V) operating permit within twelve (12) months after this source becomes subject to Title V.

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SECTION B GENERAL CONSTRUCTION AND OPERATION CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

Construction Conditions [326 IAC 2-1-3.2]

B.1 General Construction Conditions

- (a) The data and information supplied with the application shall be considered part of this permit. Prior to any proposed change in construction which may affect allowable emissions, the change must be approved by the Office of Air Management (OAM).
- (b) This permit 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.

B.2 Effective Date of the Permit [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.3 Revocation of Permits [326 IAC 2-1-9(b)]

Pursuant to 326 IAC 2-1-9(b)(Revocation of Permits), the Commissioner may revoke this permit 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.

B.4 Permit Review Rules [326 IAC 2]

Notwithstanding Condition B.11, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.5 First Time Operation Permit [326 IAC 2-1-4]

This document shall also become a first-time operation permit pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application. The facilities covered in the Construction Permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM. This new source shall apply for a Part 70 (Title V) operating permit within twelve (12) months after this source becomes subject to Title V.
- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-7-19 (Fees).

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Operation Conditions

B.6 General Operation Conditions

- (a) The data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Management (OAM).
- (2) The Permittee shall 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.

B.7 Preventive Maintenance Plan [326 IAC 1-6-3]

Pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plans), the Permittee shall prepare and maintain a preventive maintenance plan, including the following information:

- (a) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices.
- (b) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.
- (c) Identification of the replacement parts which will be maintained in inventory for quick replacement.

The preventive maintenance plan shall be submitted to IDEM, OAM upon request and shall be subject to review and approval.

B.8 Malfunction Condition [326 IAC 1-6-2]

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

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and

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usual manner. [326 IAC 1-2-39]

B.9 Transfer of Permit [326 IAC 2-1-6]

Pursuant to 326 IAC 2-1-6 (Transfer of Permits):

- (a) In the event that ownership of this polystyrene foam extrusion operation is changed, the Permittee shall notify OAM, Permit Branch, within thirty (30) days of the change. Notification shall include the date or proposed date of said change.
- (b) The written notification shall be sufficient to transfer the permit from the current owner to the new owner.
- (c) The OAM shall reserve the right to issue a new permit.

B.10 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of 326 IAC 2-1 (Permit Review Rules).

B.11 Availability of Permit [326 IAC 2-1-3(l)]

Pursuant to 326 IAC 2-1-3(l), the Permittee shall maintain the applicable permit on the premises of the source and shall make this permit available for inspection by the IDEM, or other public official having jurisdiction.

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SECTION C SOURCE CONDITIONS

Entire Source

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

C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

- (a) The total source potential emissions of volatile organic compound (VOC) and particulate matter (PM) are less than 250 tons per 365 consecutive day period. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.
- (b) Any change or modification which may increase potential emissions to 250 tons per twelve (12) consecutive month period, from the equipment covered in this permit, shall require a PSD permit pursuant to 326 IAC 2-2, before such change may occur.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:

- (a) Visible emissions shall not exceed an average of forty percent (40%) opacity in twenty-four (24) consecutive readings, as determined in 326 IAC 5-1-4.
- (b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) 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. 326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.

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). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Operation of Equipment [326 IAC 2-7-6(6)]

All air pollution control equipment listed in this permit shall be operated at all times that the emission units vented to the control equipment are in operation, as described in Section D of this permit.

C.7 Asbestos Abatement Projects - Accreditation [326 IAC 14-10] [326 IAC 18]

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[40 CFR 61, Subpart M]

Prior to the commencement of any demolition or renovation activities, the Permittee shall use an Indiana accredited asbestos inspector to inspect thoroughly the affected facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos, including Category I and Category II nonfriable asbestos containing material. The requirement that the inspector be accredited is federally enforceable.

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

C.8 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 methods approved by IDEM, OAM.

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 Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days before the intended test date.

- (b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

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)]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee shall notify:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, no more than ninety (90) days after receipt of this permit, with full justification of the reasons for the inability to meet this date and a schedule which it expects to meet. If a denial of the request is not received before the monitoring is fully implemented, the schedule shall be deemed approved.

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).

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C.10 Maintenance of Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be

made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.

- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.11 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the requirements of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.12 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

- (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
 - (3) 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 Management
100 North Senate Avenue, P.O. Box 6015

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Indianapolis, Indiana 46206-6015

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are mandatory 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) **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 that the inspector be accredited is federally enforceable.

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

C.13 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 prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on March 19, 1998.
- (b) If the ERP is disapproved by IDEM, OAM the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (c) 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.
- (d) 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.
- (e) Upon direct notification by IDEM, OAM 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.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present in more than the threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall:

- (a) **Submit:**
 - (1) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or
 - (2) As a part of the compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

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- (3) A verification to IDEM, OAM that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.
- (b) Provide annual certification to IDEM, OAM that the Risk Management Plan is being properly implemented.

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

C.15 Annual Emission Reporting [326 IAC 2-6]

That pursuant to 326 IAC 2-6 (Emission Reporting), the Permittee must annually submit an emission statement for the source. This statement must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31.

C.16 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)(B)]

- (a) Records of all required monitoring data and support information 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 kept at the source location and available within one (1) hour upon verbal request of an IDEM, OAM representative, for a minimum of

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three (3) years. They may be stored elsewhere for the remaining two (2) years providing they are made available within thirty (30) days after written request.

- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this permit;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) 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)]

- (a) To affirm that the source has met all the requirements stated in this permit the source shall submit a Quarterly Compliance Report. Any deviation from the requirements and the date(s) of each deviation must be reported.
- (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 Management
100 North Senate Avenue, P. O. Box 6015

DRAFT

Indianapolis, Indiana 46206-6015

- (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, OAM on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period.
- (e) All instances of deviations must be clearly identified in such reports. A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
 - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
 - (2) An emergency as defined in 326 IAC 2-7-1(12); or
 - (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.
 - (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring is a deviation.
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) 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.

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.

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Genpak Corporation
Scottsburg, Indiana
Permit Reviewer: Cathie Moore

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CP No. 143-9047
ID No. 143-00016

DRAFT

SECTION D.1 FACILITY CONDITIONS

- (1) One (1) polystyrene foam tandem extruder, identified as EPS-1, with a maximum capacity of 1,100 pounds per hour;
- (2) One (1) CPET foam tandem extruder, identified as ECPET-1, with a maximum capacity of 900 pounds per hour;

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

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

That pursuant to 326 IAC 8-1-6 (General Reduction Requirements), the source shall comply with the following requirements:

- (a) The blowing agent used on the polystyrene extrusion line shall be limited to 181 tons per 365-day period, rolled on a daily basis. This limit is based on the assumption that the loss of blowing agent during extrusion, warehousing, and thermoforming is 8% and the loss of blowing agent during regrind is 100%. This limit is equivalent to potential to emit (PTE) VOC of 63 tons per 365-day period. This is equivalent to 14.38 pounds VOC per hour. Any change or modification to this facility shall allow for OAM to re-open this analysis.
- (b) The blowing agent used on the CPET extrusion line shall be limited to 86 tons per 365-day period, rolled on a daily basis. This limit is based on the assumption that the loss of blowing agent during extrusion, warehousing, and thermoforming is 30% and the loss of blowing agent during regrind is 80%. This limit is equivalent to potential to emit (PTE) VOC of 43 tons per 365-day period. This is equivalent to 9.81 pounds VOC per hour. Any change or modification to this facility shall allow for OAM to re-open this analysis.
- (c) If any additional extrusion lines are added to this source, even if their individual volatile organic compound (VOC) emissions are less than twenty-five (25) tons per year, or if the blowing agent is to be changed to another type (Confidential Information), a new Best Available Control Technology (BACT) analysis will be performed for all VOC emission units at the source. The BACT options for the previously permitted emission units shall be re-evaluated.

Compliance Determination Requirements

D.1.2 Testing Requirements [326 IAC 2-1-3]

That pursuant to 326 IAC 2-1-3 (Construction and Operating Permit Requirements) compliance stack tests shall be performed for percentage blowing agent lost and actual volatile organic compound (VOC) emissions from the polystyrene foam extrusion line and the CPET foam extrusion line within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. These tests shall be performed according to 326 IAC 3-2.1 (Source Sampling Procedures) using the methods specified in the rule or as approved by the Commissioner.

- (a) A test protocol shall be submitted to the OAM, Compliance Data Section, 35 days in advance of the test.
- (b) The Compliance Data Section shall be notified of the actual test date at least two (2) weeks prior to the date.

- (c) All test reports must be received by the Compliance Data Section within 45 days of completion of the testing.
- (d) Whenever the results of the stack test performed exceed the level specified in this permit, appropriate corrective actions shall be implemented within thirty (30) days of receipt of the test results. These actions shall be implemented immediately unless notified by OAM that they are acceptable. The Permittee shall minimize emissions while the corrective actions are being implemented.
- (e) Whenever the results of the stack test performed exceed the level specified in this permit, a second test to demonstrate compliance shall be performed within 120 days. Failure of the second test to demonstrate compliance may be grounds for immediate revocation of this permit to operate the affected facility.

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

D.1.3 Best Available Control Technology (BACT) Requirements [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the source shall comply with the following requirements:

- (a) During off-loading of blowing agents (Confidential Information) the atmosphere in the storage vessel is vented back to the delivery tanker or rail car instead of being vented to the ambient air.
- (b) All transfer piping conveying blowing agent from the storage vessel to the facility operations is double walled. Interstitial monitoring is present to detect leaks from the inner piping or flanges.
- (c) All tubing in the plant is high pressure usage tested for integrity following installation.
- (d) Combustible gas meters are present in the process areas to detect the presence of blowing agent (Confidential Information). If blowing agent (Confidential Information) is detected, the source will be investigated through visual or gas detection inspection. Any leaks will be repaired.
- (e) During extrusion, immediately in front of the die lips is an area of unexpanded gel known as the halo. Air rings inside and outside of the sheet apply air directly to the halo to properly skin the foam, thus reducing the emission of blowing agent into the atmosphere during extrusion.
- (f) Visual inspections of all tubing and equipment for possible VOC emission leaks shall be performed once per shift.
- (g) Daily inspections of the two (2) foam tandem extruders shall be performed to verify that there are no possible malfunctions in the operation.
- (h) All readily visible and exposed piping and tubing shall be inspected daily for any possible leaks.
- (i) The combustible gas meters shall be calibrated once per month.
- (j) The unexpanded gel known as the halo shall be inspected daily to verify they are operating properly.

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

D.1.4 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall keep records of blowing agent (Confidential Information), total polystyrene pellets and total CPET pellets usage on a daily basis.
- (b) To document compliance with Condition D.1.3, the Permittee shall keep records of all inspections performed.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.5 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 (a) and (b) 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.

SECTION D.2 FACILITY CONDITIONS

- (3) One (1) polystyrene foam scrap regrinder, with a maximum capacity of 262 pounds per hour, using fabric filters as control;
- (4) One (1) CPET foam scrap regrinder, with a maximum capacity of 315 pounds per hour, using fabric filters as control;

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

D.2.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2, the PM from the polystyrene foam scrap regrinder shall not exceed 1.05 pounds per hour and the CPET foam scrap regrinder shall not exceed 1.19 pounds per hour as established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

Compliance Determination Requirements

D.2.2 Testing Requirements

Testing of this facility is not specifically required by this permit. However, if testing is required, compliance with the particulate matter (PM) limit specified in Condition D.2.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing. This does not preclude testing requirements on this facility under 326 IAC 2-7-5 and 326 IAC 2-7-6.

D.2.3 Particulate Matter (PM)

Pursuant to 326 IAC 6-3-2, the fabric filters for PM control shall be in operation at all times when the foam scrap regrinders are in operation and exhausting to the outside atmosphere.

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

D.2.4 Visible Emissions Notations

- (a) Daily visible emission notations of the foam scrap regrinders stack exhausts shall be performed 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.

D.2.5 Filter Inspections

An inspection shall be performed each calendar quarter of all filters controlling the two (2) regrinders when venting to the atmosphere. Inspections are optional when venting indoors. All defective filters shall be replaced.

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

D.2.6 Record Keeping Requirements

- (a) To document compliance with Condition D.2.4, the Permittee shall maintain records of daily visible emission notations of the foam scrap regrinders stack exhaust.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3 FACILITY CONDITIONS

- (5) Two (2) thirty thousand (30,000) gallon storage tanks containing the blowing agents (Confidential Information).
- (6) Three (3) process dryers with combined maximum heat input capacity of 1.5 million British thermal units per hour (mmBtu/hr);
- (7) Fourteen (14) gas unit heaters with combined maximum heat input capacity of 2.0 million British thermal units per hour (mmBtu/hr);
- (8) Three (3) air makeup units with combined maximum heat of 8.2 million British thermal units per hour (mmBtu/hr);
- (9) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;
- (10) Packaging lubricants and greases;
- (11) The following equipment related to manufacturing activities not resulting in the emission of HAPs; brazing equipment, cutting torches, soldering equipment, welding equipment;
- (12) Closed loop heating and cooling systems;
- (13) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (14) Paved and unpaved roads and parking lots with public access;
- (15) Enclosed systems for conveying plastic raw materials and plastic finished goods; and
- (16) Blowdown for any of the following: sight glass, boiler; compressors; pumps; and cooling tower.

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

D.3.1 Particulate Matter (PM) and Volatile Organic Compounds (VOCs) [326 IAC 6-3] [326 IAC 8]

Any change or modification to these facilities that would lead to an increase in particulate matter (PM) or volatile organic compound (VOC) emissions above twenty-five (25) tons per year, as specified in 326 IAC 2-1 must be approved by the Office of Air Management (OAM) before such change or modification can occur.

Compliance Determination Requirements

D.3.2 Testing Requirements

Testing of this facility is not specifically required by this permit. However, if testing is required, compliance with the volatile organic compound (VOC) limit specified in Condition D.3.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing. This does not preclude testing requirements on this facility under 326 IAC 2-7-5 and 326 IAC 2-7-6.

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

D.3.3 Monitoring

Monitoring of this facility is not required by this permit. However, any change or modification to this facility, as specified in 326 IAC 2-1, may require this facility to have monitoring requirements.

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

D.3.4 Record Keeping Requirements

- (a) The Permittee shall keep records readily accessible of the dimension of each storage vessel and an analysis showing the capacity of the storage vessel for blowing agent for the ECPET-1 extruder for this life of the source.
- (b) To document compliance with Condition D.3.3, the Permittee shall maintain records of

the results of the inspections required under condition D.3.3.

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

SECTION D.4 FACILITY CONDITIONS

- (17) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6;

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

D.4.1 Volatile Organic Compounds (VOC)

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.4.2 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.

Indiana Department of Environmental Management Office of Air Management Compliance Data Section

Quarterly Report

Company Name: Genpak Corporation
 Location: 845 South Elm Street, Scottsburg, Indiana 47170
 Permit No.: CP-143-9047-00016
 Source: polystyrene extrusion line
 Pollutant: Volatile Organic Compound (VOC)
 Limit: 181 tons blowing agent input per 365-day period, rolled on a daily basis for polystyrene extrusion line, assuming 8% loss during extrusion, warehousing and thermoforming and 100 % loss during regrind. This is equivalent to 63 tons VOC emissions / 365-day period (14.38 lb/hr).

Month: _____ Year: _____

Day	Blowing Agent Usage today (tons)	Blowing Agent Usage last 364 days (tons)	Blowing Agent Usage last 365 days (tons)	Day	Blowing Agent Usage today (tons)	Blowing Agent Usage last 364 days (tons)	Blowing Agent Usage last 365 days (tons)
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16				no. of deviations			

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Indiana Department of Environmental Management Office of Air Management Compliance Data Section

Quarterly Report

Company Name: Genpak Corporation
 Location: 845 South Elm Street, Scottsburg, Indiana 47170
 Permit No.: CP-143-9047-00016
 Source: CPET extrusion line
 Pollutant: Volatile Organic Compound (VOC)
 Limit: 86 tons blowing agent input per 365-day period, rolled on a daily basis for polystyrene extrusion line, assuming 30% loss during extrusion, warehousing and thermoforming and 80% loss during regrind. This is equivalent to 43 tons VOC emissions/365-day period (9.81 lb/hr).

Month: _____ Year: _____

Day	Blowing Agent Usage today (tons)	Blowing Agent Usage last 364 days (tons)	Blowing Agent Usage last 365 days (tons)	Day	Blowing Agent Usage today (tons)	Blowing Agent Usage last 364 days (tons)	Blowing Agent Usage last 365 days (tons)
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16				no. of deviations			

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

REV 3/96FAX NUMBER - 317 233-5967*SEE REVERSE

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

326 IAC 1-6-1 Applicability of rule

Sec. 1. The requirements of this rule (326 IAC 1-6) shall apply to the owner or operator of any facility which has the potential to emit twenty-five (25) pounds per hour of particulates, one hundred (100) pounds per hour of volatile organic compounds or SO₂, or two thousand (2,000) pounds per hour of any other pollutant; or to the owner or operator of any facility with emission control equipment which suffers a malfunction that causes emissions in excess of the applicable limitation.

326 IAC 1-2-39 “Malfunction” definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. (Air Pollution Control Board; 326 IAC 1-2-39; filed Mar 10, 1988, 1:20 p.m. : 11 IR 2373)

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

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

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

**PART 70 OPERATING PERMIT
 QUARTERLY COMPLIANCE REPORT**

Source Name: Genpak Corporation
 Source Address: 845 South Elm Street, Scottsburg, Indiana 47170
 Mailing Address: 845 South Elm Street, Scottsburg, Indiana 47170
 Construction Permit No.: 143-9047-00016

Months: _____ **to** _____ **Year:** _____

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly. Any deviation from the requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify zero in the column marked "No Deviations".

LIST EACH COMPLIANCE REQUIREMENT EXISTING FOR THIS SOURCE:

Requirement (e.g. Permit Condition D.1.3)	Number of Deviations	Date of each Deviations	No Deviations

Form Completed By: _____
 Title/Position: _____
 Date: _____
 Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for New Construction and Operation

Source Background and Description

Source Name: Genpak Corporation
Source Location: 845 South Elm Street, Scottsburg, Indiana 47170
County: Scott
Construction Permit No.: CP-143-9047-00016
SIC Code: 3089
Permit Reviewer: Cathie Moore

The Office of Air Management (OAM) has reviewed an application from Genpak Corporation relating to the construction and operation of a polystyrene foam extrusion operation, consisting of the following equipment:

- (1) One (1) polystyrene foam tandem extruder, identified as EPS-1, with a maximum capacity of 1,100 pounds per hour;
- (2) One (1) CPET foam tandem extruder, identified as ECPET-1, with a maximum capacity of 900 pounds per hour;
- (3) One (1) polystyrene foam scrap regrinder, with a maximum capacity of 262 pounds per hour, using fabric filters as control;
- (4) One (1) CPET foam scrap regrinder, with a maximum capacity of 315 pounds per hour, using fabric filters as control;
- (5) Two (2) thirty thousand (30,000) gallon storage tanks containing the blowing agents (the identification of the specific blowing agents used has been requested by the source to be considered Confidential Information);
- (6) Three (3) process dryers with combined maximum heat input capacity of 1.5 million British thermal units per hour (mmBtu/hr);
- (7) Fourteen (14) gas unit heaters with combined maximum heat input capacity of 2.0 million British thermal units per hour (mmBtu/hr);
- (8) Three (3) air makeup units with combined maximum heat of 8.2 million British thermal units per hour (mmBtu/hr);
- (9) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;
- (10) Packaging lubricants and greases;
- (11) The following equipment related to manufacturing activities not resulting in the emission of HAPs; brazing equipment, cutting torches, soldering equipment, welding equipment;
- (12) Closed loop heating and cooling systems;
- (13) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other

air filtration equipment;

- (14) Paved and unpaved roads and parking lots with public access;
- (15) Enclosed systems for conveying plastic raw materials and plastic finished goods;
- (16) Blowdown for any of the following: sight glass, boiler; compressors; pumps; and cooling tower; and
- (17) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6;

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Information, unless otherwise stated, 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 October 10, 1997, with additional information received on December 5, 1997, December 8, 1997, December 30, 1997 and February 10, 1998.

Emissions Calculations

See Appendix A (Emissions Calculation Spreadsheets) for detailed calculations (three (3) pages).

Total Potential and Allowable Emissions

Indiana Permit Allowable Emissions Definition (after compliance with applicable rules, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Allowable Emissions (tons/year)	Potential Emissions (tons/year)
Particulate Matter (PM)	10.51	127.06
Particulate Matter (PM10)	10.51	127.06
Sulfur Dioxide (SO ₂)	-	0.00
Volatile Organic Compounds (VOC)	106.1	106.91
Carbon Monoxide (CO)	-	1.80
Nitrogen Oxides (NO _x)	-	7.20
Single Hazardous Air Pollutant (HAP)	-	0.00
Combination of HAPs	-	0.00

- (a) Allowable emissions are determined from the applicability of rule 326 IAC 6-3-2 and 326 IAC 8-1-6. See attached spreadsheets for detailed calculations.

- (b) The allowable emissions based on the rules cited are less than the potential emissions, therefore, the allowable emissions are used for the permitting determination.
- (c) Allowable emissions (as defined in the Indiana Rule) of volatile organic compound (VOC) are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.

County Attainment Status

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Scott County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Scott County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	7.02
PM10	7.02
SO ₂	0.00
VOC	106.1
CO	1.80
NO _x	7.20
Single HAP	0.00
Combination HAPs	0.00

- (a) This new source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is greater than or equal to 100 tons per year.

This new source shall apply for a Part 70 (Title V) operating permit within twelve (12) months after this source becomes subject to Title V.

Federal Rule Applicability

- (a) The one (1) thirty thousand (30,000) gallon storage tank for the blowing agent (Confidential Information) for the EPCET-1 extruder is subject to the New Source Performance Standard, 326 IAC 12 (40 CFR 60.116b, Subpart Kb) because their capacities are greater than seventy-five cubic meters (75m³) but less than one hundred fifty-one cubic meters (151m³) with a maximum true vapor pressure less than 15.0 kPa.
 - (1) The Permittee shall keep records readily accessible of the dimension of the storage tanks and an analysis showing the capacity of the storage tanks for the life of the source.
- (b) The other thirty thousand (30,000) gallon storage tank for the blowing agent (Confidential Information) for the EPS-1 extruder is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110b, 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.
- (c) 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 use mineral spirits as their solvent, which is not one of the listed solvents applicable to this subpart.

State Rule Applicability

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because the source emits more than 100 tons/yr of VOC. Pursuant to this rule, the owner/operator of this facility must annually submit an emission statement of the facility. The annual statement must be received by July 1 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.

326 IAC 2-2 (Prevention of Significant Deterioration)

This source is not subject the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) because the potential emissions of any pollutant are less than two hundred fifty (250) tons per year and it is not one of the 28 listed source categories for this rule.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in

this permit:

- (a) Visible emissions shall not exceed an average of forty percent (40%) opacity in twenty-four (24) consecutive readings as determined by 326 IAC 5-1-4,
- (b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period.

326 IAC 8-1-6 (General Reduction Requirements)

- (a) The two (2) blowing agent storage tanks are not subject to the requirements of 326 IAC 8-1-6 (General Reduction Requirements) because these tanks are pressurized tanks with pressure relief valves for pressures above the operating temperatures and that under normal operating conditions and normal ambient temperature variations, the relief valve will not be triggered. Therefore, the potential volatile organic compound (VOC) emissions are negligible.
- (b) The polystyrene tandem extruder line and the CPET tandem extruder line are subject to the requirements of 326 IAC 8-1-6 (General Reduction Requirements) because their potential volatile organic compound (VOC) emissions are greater than twenty-five (25) tons per year each and they are not yet constructed, which is after the January 1, 1980 applicability date. Pursuant to 326 IAC 8-1-6 (General Reduction Requirements), a Best Available Control Technology (BACT) analysis was performed and submitted with this application for the polystyrene tandem extruder and the CPET tandem extruder. Genpak Corporation examined several options of controlling volatile organic compound (VOC) emissions.

BACT analysis for VOC was performed by IDEM, OAM was conducted in accordance with the "Top Down BACT Guidance" U.S. EPA, Office of Air Quality Planning and Standards, March 15, 1990. The BACT analysis includes control technologies found in the U.S. EPA RACT/BACT/LAER Clearinghouse database and permits issued by the State and local agencies.

(A) U.S. EPA RACT/BACT/LAER Clearinghouse & State Regulatory Agencies:

(A1) First Evaluation:

Options:

Search for sources with SIC code 3086 (foam products manufacturing), although the processes involved are different from Genpak Corporation. Use BLISS Code of 99.99 - Other miscellaneous sources as a subset to cover other operations not specified. Major pollutant is volatile organic compounds (VOC). Search for similar sources based on the process name "polystyrene foam production".

Results:

The following facilities are listed in the database under SIC Code 3086:

All five (5) plants in this table 1 involve **polystyrene bead expansion in molds**, except for Amoco, Virginia which involves extrusion, and thermoforming.

Polystyrene bead expansion in molds VOC emission is easy to capture and control as compared to extrusion where continuous sheets of foam from polystyrene pellets and blowing agent emissions are produced. VOC is emitted from the extrusion process. The continuous sheets of foam that is produced, continuously emit fugitive VOC even when stored at the warehouse. The same is true with grinding of unusable trays, conveying to fluff to storage

silos, and reclaim extruders.

Two (2) of these companies have installed PSD BACT controls. Western Insulfoam had proposed the installation of a natural gas fired boiler for control. Falcon Manufacturing had proposed the installation of a direct flame incinerator. The other three (3) had proposed to modify their processes to accommodate the use of low VOC material.

There is no detailed information available on the EPA database regarding the specific operation being controlled in this Table 1. No verification has been made by the OAM if these proposed PSD BACT have been implemented.

Table 1
 Sources from U.S. EPA RACT/BACT/LAER Clearinghouse Researched by IDEM, OAM

Company Name	Location	Facility Type/Description	Status
Western Insulfoam	Phoenix, Arizona	Foam panel manufacturing- Polystyrene bead expansion, bead storage, pre-expanders, and molding machines	Major PSD source. Located in an ozone attainment area. No potential VOC emissions were calculated. The bead storage, pre-expanders, and molding machines are controlled by natural gas-fired process boiler for control. Compliance was not verified.
Tuscarora, Inc.	Putnam, Connecticut	Molding expandable polystyrene	Major PSD source. Located in an ozone attainment area. The BACT determined was the used of a double pass pre-expander to accommodate low VOC beads.
Falcon Manufacturing	Byron Center, Michigan	Expandable polystyrene (EPS) block manufacturing; process expands the EPS then mold EPS into blocks, cut & shipped to the customer.	Major PSD source. Located in ozone nonattainment area. The expander is required to have a direct flame incinerator. This operation has potential VOC emissions of 607.6 tons/year

Tuscarora Plastic, Inc.	Saginaw, Michigan	Storage, pre-expansion & pre-puff, molding, storage	Major PSD source. Located in an attainment area. The PSD BACT determined for the EPS beads is process modification using low VOC content beads.
Tuscarora Plastic, Inc.	Chesaning, Michigan	Storage, pre-expansion & pre-puff, molding, storage	Major PSD source. Located in an attainment area. The PSD BACT determined for the EPS beads is process modification using low VOC content beads.
Universal Urethane, Inc.	Las Vegas, Nevada	Polyurethane manufacturing products.	Information was not clear. Tried verifying info but the permit writer had left the agency.
Amoco Foam Products Company	Winchester, Virginia	Expanded polystyrene manufacturing, which produces food service styrofoam products.	Minor PSD source. Located in an ozone attainment area. The State BACT determined for the product lines are: a) Limit of 245 tons of VOC per year. b) Source to continue research & development for alternative blowing agents; otherwise back-up incineration control system will be required. c) Daily material balance records to be maintained on the premises with quarterly reports submitted on amounts & types of blowing agents consumed & emitted. d) Progress reports on blowing agent substitution schedule.

(A2) Second Evaluation:
 A research by the OAM has been made for permits issued from other states and local regulatory agencies for sources currently in operation with similar process as Genpak Corporation. The table 2 below summarizes the search. No verification has been made if proposed BACT has been implemented.

Results:
 The State BACT for two (2) sources, one located in an attainment area and one

is located in a serious non-attainment are, consisted of a VOC limitation and the installation of control equipment. The State BACT for one (1) source located in a non-attainment area consisted of a VOC limit and no installation of control equipment was required. The State BACT for one (1) source located in an attainment area consisted of a VOC limit and the installation of control equipment.

Table 2
 Sources from other states researched by IDEM, OAM

Company Name	Location	Facility Type/Description	Status
Cellofoam	Conyers, Georgia	Expandable Polystyrene frozen beads processing in molds.	Serious non-attainment for ozone. Limited to 49.9 tons of VOC/year. Boiler incinerator for control.
Free-Flow Packaging Corporation	Atlanta, Georgia	Manufacture of and expansion of polystyrene beads and manufacture of polyethylene foam sheets, using molds.	Serious non-attainment for ozone. Emission limited to 49 tons of VOC per year. No VOC control.
Tenneco Plastics Company	Covington, Georgia	Polystyrene foam packaging and polyethylene bag and stretch film extrusion production. See table 3 below, for specific operations being controlled.	Located in an ozone attainment area. Existing minor PSD source. A limit of 249 tons of VOC per year. Installation of a Regenerative Thermal Oxidizer with an overall efficiency of 90%.
Dolco Packaging	Lawrenceville, Georgia	Polystyrene foam sheet extrusion packaging production. See table 3 below, for specific operations being controlled.	Serious non-attainment area. Emission limited to 49 tons of VOC per year. Installation of a Regenerative Thermal Oxidizer with an overall efficiency of 90%.

Tenneco Plastics Company and Dolco Packaging from Table 2, are the two plants that have similar process operations with Genpak Corporation, and therefore, a comparison between these plants was made as follows:

Table 3

Tenneco Plastics Company	Dolco Packaging	Genpak Corporation
1. Existing minor PSD source	1. Existing minor PSD source	1. New minor PSD source
2. Located in an attainment area for ozone.	2. Located in a severe non-attainment area for ozone.	2. Located in an attainment area for ozone.

3. Emissions from extrusion, cooling and aging/curing are considered fugitive, and are not counted towards PSD applicability. For this reason, these areas are not being controlled by the RTO.	3. Curing room, thermoforming and the scrap silos are the areas that are being controlled	3. Polystyrene repelletizer and repelletized material silo; CPET repelletizer and CPET repelletized material silo, extruders, thermoformers and warehouse
4. Tenneco's airflow is approximately 1.1 million cfm	4. DOLCO Packaging's airflow is approximately 10,000 scfm	4. Genpak's airflow is approximately 6,000 cfm
5. Scrap regrinding, re-pelletizing, and fluff storage tanks are considered point source emissions and are counted towards PSD applicability. These point sources are the ones to be controlled by the RTO to maintain their emissions below the PSD threshold.	5. Proposed the installation of a Regenerative Thermal Oxidizer to meet the RACT rule requirements for polystyrene packaging products manufacturing. Dolco is presently emitting above 25 tons/yr and are in violation of Rule (tt). The installation of the RTO is to meet the RACT requirement of Rule (tt). RACT rule applies to facilities with potential VOC emissions of 25 tons/yr or more. The rule allows the facility to emit up to 49 tons/yr with control.	5. Proposed the installation of a thermal oxidizer, but concluded that this control option is not economically feasible. This source is a brand new source with the uncontrolled potential VOC emissions of 106.81 tons/yr.
6. Manufactures fast food containers	6. Manufactures egg cartons and poultry trays.	6. Manufactures various containers

(A3) Third Evaluation:

A research was made by IDEM, OAM for permits issued from other states and local regulatory agencies for sources currently in operation with similar processes as Genpak Corporation's. The table below summarizes the search.

Results:

The BACT for one (1) source is no material substitution and no add-on control required, and the BACT for the other one (1) is modifying the blowing agent composition and no add-on control required.

Table 4
 Sources from other states Researched by IDEM, OAM.

Company Name	Location	Facility Type/Description	Status
Formpac	Reading, Pennsylvania	Polystyrene foam sheet extrusion packaging production	The BACT is to modify the blowing agent composition. No add-on control required.
Genpak	Cedar City, Utah	Polystyrene foam sheet extrusion packaging production	The BACT is no material substitution nor add-on control device required.

(A4) Fourth Evaluation:

Sources located in Indiana, with similar operations as Genpak Corporation. The table below summarizes the search.

Results:

The state BACT for this source has an emission limit before control of 323 tons of VOC per year and the installation of a Regenerative Thermal Incinerator.

Table 5
 Sources located in Indiana

Company Name	Location	Facility Type/Description	Status
Dolco Packaging	Decatur, Indiana	<p>Polystyrene foam sheet extrusion packaging production</p> <p>Dolco Packaging airflow after control is approximately 15,000 acfm.</p> <p>Curing room, thermoformer, grinders, and the finish storage are the processes being controlled.</p> <p>Manufactures egg cartons, and poultry trays.</p>	<p>Synthetic PSD minor.</p> <p>Limited to 323 tons of VOC per year before control.</p> <p>Installation of a Regenerative Thermal Oxidizer.</p>

Dolco Packaging, Decatur, Indiana proposed the installation of a Regenerative Thermal Oxidizer to stay below the PSD and Title V threshold levels and remain a minor source.

(B) Process Modification:

Genpak has evaluated the feasibility of substituting a non-VOC material for the blowing agent for the foam extrusion. Genpak found these non-VOC blowing agents did not produce satisfactory results.

(C) Control Technology Options:

- (i) Recuperative Thermal Oxidizer - **This control option is technically feasible for the Genpak process operations.** This control uses high temperature to destroy VOC. It can recover up to 70% of the heat of combustion using a gas-to-gas heat exchanger, and is recommended for emission streams containing a minimum of 20 ppm of combustible VOCs but less than 25% of the lower explosive limit (LEL) of the pollutant. Genpak feels that the technical feasibility of this control option is high. Further analysis will be made on this control option.
- (ii) Regenerative Thermal Oxidizer - **Genpak feels that the technical feasibility of this control option is low to moderate. Some of the problems with this control option are lower heat transfers and lower removal efficiency as compared to the Recuperative Thermal Oxidizer.** This technology is similar in concept to the Recuperative Thermal Oxidizer, where both use high temperature to destroy VOC. It is suitable for the same inlet streams as the Recuperative Thermal Oxidizer. The difference is the method of preheating the pollutant stream before the combustion chamber. Instead of the air-to-air heat

exchanger used in recuperative systems, regenerative installations have two or more heat recovery chambers. Further analysis will be made on this control option

- (iii) **Recuperative Catalytic Incinerator - Genpak feels that the technical feasibility of this control option is low to moderate. Some of the problems with this control option are lower removal efficiency as compared to the Recuperative Thermal Oxidizer.** This technology involves the presence of catalysts in the combustion chamber. The catalyst lowers the activation energy of the oxidation reaction so combustion occurs at temperature ranging from 600 °F to 1,200 °F, which is lower than the temperature to operate a thermal oxidizer. Further analysis will be made on this control option.
- (iv) **Regenerative Catalytic Incinerator - Genpak feels that the technical feasibility of this control option is low to moderate. Some of the problems with this control option are lower heat transfers and lower removal efficiency as compared to the Recuperative Thermal Oxidizer.** This technology uses the same method of heat recovery as the Regenerative Thermal Oxidizer. The pollutant stream passes through a heat recovery chamber for preheating by the ceramic packing and into the combustion chamber. After destruction, the high temperature exhaust from the combustion chamber flows through a second heat recovery chamber, heating the packing there. Then the flow reverses and the second chamber becomes the preheater while the first reheats. Further analysis will be made on this control option.
- (v) **Flare - Genpak feels that the technical feasibility of this control option is low. Some of the problems with this control option are that the volatile organic compound (VOC) concentration is too low for this source's operation and it would be difficult to sustain the flame.** A flare is an open flame used to combust emission streams resulting from normal or upset process conditions. It is typically applied when the heat content of the emission stream is greater than 300 Btu/scf and when the value of any recovered product is negligible. The emission stream enters the flare stack where pilot burners ignite the VOCs. The destruction efficiency depends on factors such as flare gas exit velocity, emission stream heating value, residence time in the combustion zone, emission stream/oxygen mixing and flame temperature. Further analysis will be made on this control option.
- (vi) **Carbon Adsorption - Genpak feels that the technical feasibility of this control option is low. Some of the problems with this control option are that plastic particulates can settle in the chamber and cause fires and a lower removal efficiency as compared to a Recuperative Thermal Oxidizer.** Carbon Adsorption uses a bed of activated carbon to remove VOC's from an emission stream. The process is effective to remove any organic pollutants. This analysis considers a fixed bed system because systems using replaceable carbon cartridges are suited only to very low flow rates. As the VOC laded stream passes through a carbon bed, the containment molecules occupy active sites on the carbon surface. At some concentration the pollutant molecules saturate the carbon so adsorption stops and breakthrough occurs.

Further analysis will be made on this control option.

- (vii) Carbon Adsorption - Oxidation - **Genpak feels that the technical feasibility of this control option is low. Some of the problems with this control option are that the plastic particulates can ignite the carbon and a lower heat transfer and lower removal efficiency as compared to the Recuperative Thermal Oxidizer.** This system concentrates the VOC stream by using carbon adsorption to remove low concentration VOC in an emission stream and then uses a lower volume of hot air to desorb the pollutant. A recuperative incinerator for destroying pollutants in the concentration stream is much smaller and has lower supplemental fuel requirements than an incinerator sized for the full emission stream volume. Further analysis will be made on this control option.
- (viii) Condensation - **This control option is not technically feasible for the Genpak process operations. This control option is usually used when there is a high volatile organic compound (VOC) concentration in the air streams. The source's VOC concentration would not be high enough to maintain the proper control efficiency.** This technology is the separation of the VOC's from an emission stream through a phase change, by either increasing the system pressure or commonly lowering the system temperature below the dew point of the VOC vapor. The emission stream enters a heat exchanger, usually a shell tube design and encounters the cold surface of tubes carrying the heat transfer fluid. The emission stream temperature drops to the dew point of its VOC constituents. The VOC liquefies and drops out of the emission stream. The cleaned emission stream is then vented to the stack while the condensed solvent is collected for reuse. No further analysis will be made for this control option.
- (ix) Absorption - **This control option is not technically feasible for the Genpak process operations. This system can only be used to concentrate emission streams to reduce the size of the destruction equipment.** The concentration effect is not as extreme as with carbon adsorption. Absorption concentrators are typically suited for batch processes or to equalize pollutant concentration in a variable stream. No further analysis will be made for this control option.

The following is the cost analysis for the technically feasible control options:

Genpak has evaluated the VOC reduction for thermal oxidation based on assumed 95% destruction efficiency of the thermal incinerator and 85% capture of the blowing agent. In order to evaluate the costs of controlling various sources of VOC emissions as well as all potential VOC emissions, Genpak evaluated seven (7) control scenarios:

- (1) The polystyrene repelletizer and repelletized material silo;
- (2) The polystyrene and CPET repelletizers and repelletized material silos;

- (3) Both repelletizers and repelletized material silos, all extruders, all thermoformers, and the warehouse;
- (4) The CPET repelletizer and repelletized material silos;
- (5) The polystyrene extruder;
- (6) The CPET extruder; and
- (7) The polystyrene and the CPET extruder.

The following table summarizes the data used to calculate the capital costs of the different control options:

Table 6
 VOC Emission rate, Air Flow and Concentrations

Emission Scenario	lb VOC/hr generated	Air flow required (scfm)	VOC concentration (ppm)
Polystyrene Repelletizer and Silo (Case 1)	11.21	6,000	151
Polystyrene and CPET Repelletizers and Silos (Case 2)	13.72	10,000	123
Polystyrene and CPET Extruders, Repelletizers, and Silos (Case 3)	24.39	58,000	34
CPET Repelletizer and Silo (Case 4)	3.68	6,000	53
Polystyrene Extruder (Case 5)	3.36	10,000	27
CPET Extruder (Case 6)	5.94	10,000	48
Polystyrene and CPET Extruder (Case 7)	9.30	15,000	50

The first scenario was evaluated because in previous studies Genpak has determined that the majority of blowing agent is liberated at the point in the process where foam which has already been injected with blowing agent is reground for reuse.

The total capital cost of the control equipment was amortized over five (5) years and fifteen (15) years, assuming a 10 percent interest rate. A time period of five years was used because it is Genpak's experience that comprehensive rebuilding of the unit would be required every 5 years. A time period of fifteen (15) years was used as an illustration that the costs would not change

drastically if a different time period was used because of the comprehensive rebuilding and fuel usage. Annual utility expenses would cost \$0.05/kw-hour and \$6.00/million British thermal unit (mmBtu).

Case	Recuperative Thermal Oxidizer (\$ per ton VOC removed)	Regenerative Thermal Oxidizer (\$ per ton VOC removed)	Recuperative Catalytic Incinerator (\$ per ton VOC removed)	Regenerative Thermal Incinerator (\$ per ton VOC removed)
1	\$ 7,770 for 5 years \$ 7,621 for 15 years	\$ 8,203 for 5 years \$ 8,164 for 15 years	\$ 8,136 for 5 years \$ 8,076 for 15 years	\$ 8,488 for 5 years \$ 8,496 for 15 years
2	\$ 9,007 for 5 years	-	-	-
3	\$ 15,280 for 5 years	-	-	-
4	\$ 22,428 for 5 years \$ 19,143 for 15 years	\$ 26,360 for 5 years	-	-
5	\$ 26,360 for 5 years \$ 30,640 for 15 years	-	-	-
6	\$ 14,905 for 5 years \$ 17,326 for 15 years	-	-	-
7	\$ 9,967 for 5 years \$ 11,371 for 15 years	-	-	-

Cost Effectiveness:

Genpak's economic analysis of system operation shows a cost of \$7,770 to \$26,360 per ton VOC removed by thermal oxidation. Since the evaluated BACT controls indicate these control options are not cost effective in Genpak's case, Genpak proposes BACT to be no add-on control equipment.

Work Practice Standards and Limit

Since Genpak proposes BACT to be no add-on control equipment, the source has submitted the following work practice standards and established the following limit:

- (1) During off-loading of blowing agents (Confidential Information) the atmosphere in the storage vessel is vented back to the delivery tanker or rail car instead of being vented to the ambient air.
- (2) All transfer piping conveying blowing agent from the storage vessel to the facility operations is double walled. Interstitial monitoring is present to detect leaks from the inner piping or flanges.
- (3) All tubing in the plant is high pressure usage tested for integrity once per month.
- (4) Combustible gas meters are present in the process areas to detect the presence of blowing agent (Confidential Information). If blowing agent (Confidential Information) is detected, the source will be investigated through visual or gas detection inspection. Any leaks will be repaired.
- (5) During extrusion, immediately in front of the die lips is an area of unexpanded gel known

as the halo. Air rings inside and outside of the sheet apply air directly to the halo to properly skin the foam, thus reducing the emission of blowing agent into the atmosphere during extrusion.

- (6) Visual inspections of all tubing and equipment for possible VOC emission leaks shall be performed once per shift.

- (7) Pursuant to 326 IAC 8-1-6 (General Reduction Requirements), the blowing agent used on the polystyrene extrusion line shall be limited to 166 tons per year. The loss of blowing agent during extrusion, warehousing, and thermoforming shall be limited to 8% and the loss of blowing agent during regrind shall be limited to 100%. This limit is equivalent to 63 tons VOC emissions per year. This limit was established as follows:

The potential VOC emissions from this line shall be limited to 63 tons/yr
During extrusion, warehousing, and thermoforming, there is an 8% loss of blowing agent.
After extrusion, warehousing and thermoforming, 29% of the materials are reground.
During regrind, there is a 100% loss of blowing agent.

Blowing agent usage (tons/yr) * 8% (loss for extrusion, warehousing and thermoforming)
+ Blowing agent usage (tons/yr) * 92% (after extrusion, warehousing and thermoforming)
* 29% (regrind) * 100% (loss for regrind) = 63 tons per year

Blowing agent usage = 181 tons/365-day period, rolled on a daily basis.
A compliance stack test shall be performed to ensure compliance with this requirement.

Any change or modification to this facility shall allow for OAM to re-open this analysis.

- (8) Pursuant to 326 IAC 8-1-6 (General Reduction Requirements), the blowing agent used on the CPET extrusion line shall be limited to 79 tons per year. The loss of blowing agent during extrusion, warehousing, and thermoforming shall be limited to 30% and the loss of blowing agent during regrind shall be limited to 80%. This limit is equivalent to 43 tons VOC emissions per year. This limit was established as follows:

The potential VOC emissions from this line shall be limited to 43 tons/yr
During extrusion, warehousing, and thermoforming, there is a 30% loss of blowing agent.
After extrusion, warehousing and thermoforming, 35% of the materials are reground.
During regrind, there is an 80% loss of blowing agent.

Blowing agent usage (tons/yr) * 30% (loss for extrusion, warehousing, and thermoforming) + Blowing agent usage (tons/yr) * 70% (after extrusion, warehousing, and thermoforming) * 35% (regrind) * 80% (loss for regrind) = 43 tons per year

Blowing agent usage = 86 tons/365-day period, rolled on a daily basis.
A compliance stack test shall be performed to ensure compliance with this requirement.

Any change or modification to this facility shall allow for OAM to re-open this analysis.

- (9) If any additional extrusion lines are added to this source, even if their individual volatile organic compound (VOC) emissions are less than twenty-five (25) tons per year, or if the blowing agent is to be changed to another type (Confidential Information), a new Best Available Control Technology (BACT) analysis will be performed for all VOC emission units at the source. The BACT options for the previously permitted emission units shall

be re-evaluated.

326 IAC 8-3-2 (Cold Cleaner Operation)

The degreasing operations (Insignificant Activity) are subject to the requirements of 326 IAC 8-3-2 (Cold Cleaner Operation) because it is a new facility which will commence operation after January 1, 1980. Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operation), the Permittee shall:

- (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 operating 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.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

The degreasing operations (Insignificant Activity) are subject to the requirements of 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control) because it is a new facility which will commence operation after July 1, 1990. Pursuant to 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control),

- (a) The Permittee 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 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) The Permittee 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.

326 IAC 8-6 (Organic Solvent Emission Limitations)

The one (1) polystyrene foam tandem extruder and the one CPET foam tandem extruder are not subject to the requirements of 326 IAC 8-6 (Organic Solvent Emission Limitations) because this new source will commence operation after the applicability date of January 1, 1980 of this rule.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

The two (2) 30,000 gallons blowing agent storage tanks (Confidential Information) are not subject to the requirements of 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels) because this source is not located in any of this listed counties that are subject to this rule.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) overspray from the polystyrene foam scrap regrind operation and the CPET foam scrap regrind operation be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

For the polystyrene foam scrap regrind operation:

P = 262 pounds per hour = 0.131 tons per hour

E = 1.05 pounds PM per hour

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

For the CPET foam scrap regrind operation:
P = 315 pounds per hour = 0.1575 tons per hour
E = 1.19 pounds PM per hour

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

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

- (a) None of these listed air toxics will be emitted from this proposed construction.

Conclusion

The construction of this polystyrene foam extrusion operation will be subject to the conditions of the attached proposed **Construction Permit No. CP-143-9047-00016**.

Three (3) process dryers
 Fourteen (14) gas unit heaters
 Three (3) air makeup units

Appendix A: Emissions Calculations
Natural Gas Combustion Only
10 < MM BTU/HR <100
Small Industrial Boiler

Company Name: Genpak Corporation
Address City IN Zip: 845 South Elm Street, Scottsburg, Indiana 47170
CP: 143-9047-00016
Plt ID: 143-00016
Reviewer: Cathie Moore
Date: 12/31/97

Heat Input Capacity
 MMBtu/hr

Potential Throughput
 MMCF/yr

11.7

102.5

Emission Factor in lb/MMCF	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
	13.7	13.7	0.6	140.0	2.8	35.0
Potential Emission in tons/yr	0.7	0.7	0.0	7.2	0.1	1.8

Methodology

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: Uncontrolled = 140, Low NOx Burner = 81, Flue gas recirculation = 30

Emission Factors for CO: Uncontrolled = 35, Low NOx Burner = 61, Flue gas recirculation = 37

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

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

**Appendix A: Emissions Calculations
 Particulate Matter
 From Polystyrene Foam Extrusion**

Company Name: Genpak Corporation
Address City IN Zip: 845 South Elm Street, Scottsburg, Indiana 47170
CP: 143-9047-00016
Plt ID: 143-00016
Reviewer: Cathie Moore
Date: 10/15/97

Facility	Max Rate (lb/hr)	Potential Particulate Emissions (ton/yr) Uncontrolled	Fabric Filter Efficiency	Potential Particulate Emissions (ton/yr) Controlled
EPS-1	262.0	57.38	95.0%	2.87
ECPET-1	315.0	68.99	95.0%	3.45

State Potential Emissions

126.36

6.32

METHODOLOGY

When transferring materials 5% carryover occurs (i.e. 5% of material could escape if not controlled) $577 * 5\% = 28.85$ pounds per hour = 126.36 tons per year

Controlled potential emissions calculated using 95% efficiency fabric filter

**Appendix A: Emissions Calculations
Volatile Organic Compound
From Polystyrene Foam Extrusion**

Company Name: Genpak Corporation
Address City IN Zip: 845 South Elm Street, Scottsburg, Indiana 47170
CP: 143-9047-00016
Plt ID: 143-00016
Reviewer: Cathie Moore
Date: 10/15/97

Facility	Max Rate (lb/hr)	Potential VOC Emissions (ton/yr) Extrusion, Warehouse and Thermoform	Potential VOC Emissions (ton/yr) Repellitizer and Silo	Total Potential VOC Emissions (ton/yr)
EPS-1				
Virgin Pellets	739.0			
Regrind Pellets	319.0			
Blowing Agent	42.0	14.72	49.08	63.80
ECPET-1				
Virgin Pellets	565.2			
Regrind Pellets	315.0			
Blowing Agent	19.8	26.02	17.00	43.02
State Potential Emissions		40.73	66.08	106.81

METHODOLOGY

For EPS-1:

During extrusion, warehousing, and thermoforming there is an 8% loss of blowing agent (Confidential Information) (e.g. $42 * 0.08 = 3.36$ pound per hour)

After extrusion, warehousing, and thermoforming, 29% of the materials are regrind

During regrind there is a 100% loss of blowing agent (e.g. $42 * 0.92$ remains after thermoform * 0.29 scrap * 1.0 loss = 11.21 pounds per hour)

For EPCET-1:

During extrusion, warehousing, and thermoforming there is an 30% loss of blowing agent (Confidential Information) (e.g. $19.8 * 0.30 = 5.94$ pound per hour)

After extrusion, warehousing, and thermoforming, 35% of the materials are regrind

During regrind there is an 80% loss of blowing agent (e.g. $19.8 * 0.7$ remains after thermoform * 0.35 scrap * 0.7 loss = 3.88 pounds per hour)

Indiana Department of Environmental Management Office of Air Management

Addendum to the Technical Support Document for New Construction and Operation

Source Name: Genpak Corporation
 Source Location: 845 South Elm Street, Scottsburg, Indiana 47170
 County: Scott
 Construction Permit No.: CP-143-9047-00016
 SIC Code: 3089
 Permit Reviewer: Cathie Moore

On February 21, 1998, the Office of Air Management (OAM) had a notice published in the Scott County Journal, Scottsburg, Indiana, stating that Genpak Corporation had applied for a construction permit to construct and operate a polystyrene foam extrusion operation. The notice also stated that OAM proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On March 19, 1998, Edward J. Rider, Jr. of Genpak Corporation submitted comments on the proposed construction permit. The summary of the comments and corresponding responses is as follows (strikeout added to show what was deleted and bold added to show what was added):

Comment 1:

Source Condition C.10: It is our understanding that this condition applies to compliance monitoring equipment installed to demonstrate compliance with a numerical standard such as opacity or VOC emissions and does not apply to the combustible gas meters in place as part of the BACT requirements cited in D.1.4(d). We would request that condition C.10 be modified to state **“This condition does not apply to combustible gas meters installed at the facility.”**

Response to Comment 1:

Since the combustible gas meters usage is required as part of the BACT requirements of this permit, the Permittee must ensure their proper operation. Therefore, if this equipment is malfunctioning, records need to be kept of the malfunction and response steps taken to correct the malfunction. There will be no changes to this condition in the final permit due to this comment.

Comment 2:

Source Operation Condition C.13, Emergency Reduction plans: Condition C.13 requires the submittal and maintenance of an Emergency Reduction Plan. Attached is an Emergency Reduction Plan which we believe is adequate to fulfill this requirement. We would request that this condition be modified to reflect that a plan has been submitted.

Response to Comment 2:

Condition C.13 “Emergency Reduction Plans” has been changed to be as follows:

C.13 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~~ **prepared and submitted** written emergency reduction

plans (ERPs) consistent with safe operating procedures **on March 19, 1998.**

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

~~Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015~~

~~within 180 days from the date on which this source commences operation.~~

~~(e)(b)~~ If the ERP is disapproved by IDEM, OAM the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP. ~~If after this time, the Permittee does not submit an approvable ERP, then IDEM, OAM shall supply such a plan.~~

~~(d)(c)~~ 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)(d)~~ 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)(e)~~ Upon direct notification by IDEM, OAM 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]

Comment 3:

Source Condition C.15: This condition states that emission statements are due April 15 of each year. We believe our emission statements should be due by July 1 of each year because we are in an attainment county. We request that this condition be modified accordingly.

Response to Comment 3:

Condition C.15 "Annual Emission Reporting" has been changed to be as follows:

C.15 Annual Emission Reporting [326 IAC 2-6]

That pursuant to 326 IAC 2-6 (Emission Reporting), the Permittee must annually submit an emission statement for the source. This statement must be received by ~~April 15~~ **July 1** of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The annual emission statement covers the twelve (12) consecutive month time period starting ~~December~~ **January 1** and ending ~~November 30~~ **December 31**.

Comment 4:

Facility Condition D.1.1(c): This condition states that any additional extrusion lines or changes in blowing agent will result in a BACT analysis of all units at the source and the previously permitted emission units shall be re-evaluated. We do not believe that the BACT applicability provisions of Indiana's regulations require BACT evaluations of previously installed emission units when new emission units are installed, particularly if the potential emission of the new units are less than 25 tons/year. We would request that D.1.1(c) be deleted.

Response to Comment 4:

As discussed in the meeting held with Genpak, Keramida, and IDEM, OAM on February 10, 1998, the source is proposing no add-on control because of economic infeasibility as determined in the Best Available Control Technology (BACT) analysis. If, in the future, the source proposed to construct additional extrusion lines or change the type of blowing agent used, an analysis of the entire source may cause the cost per ton VOC removed to decrease and therefore become economically feasible. This re-evaluation was agreed upon by all parties to be part of the Best Available Control Technology (BACT) analysis. There will be no changes in the final permit due to this comment.

Comment 5:

Facility Condition D.1.2: This condition requires a Preventive Maintenance Plan for the extruders being installed. We believe this condition applies when control devices are in place. Therefore, we recommend this condition be moved to Section D.2 of the permit which applies to the regrinders and associated fabric filters.

Response to Comment 5:

Condition D.1.2 "Preventive Maintenance Plan" has been deleted from the final permit. The remaining conditions have been re-numbered.

Comment 6:

Facility Condition D.1.3: This condition states that VOC stack test are required for the extrusion lines. We do not believe that stack test should be required because specific numerical VOC emission limits have not been applied to these units. Compliance with VOC emission levels stated in our application will be demonstrated by monitoring blowing agent usage. We would request that this permit condition be revised as follows: **"Testing of this facility is not specifically required by this permit. However, if testing is required, compliance with the volatile organic compound (VOC) limit specified in Condition D.2.1 shall be determined by a performance test conducted in accordance with Section C-Performance Testing. This does not preclude testing requirements on this facility under 326 IAC 2-7-5 and 326 IAC 2-7-6."**

Response to Comment 6:

Compliance stack tests are required to show that the assumptions used in the emission calculations submitted in the permit application are indeed correct. Verification of the percentage of blowing agent lost at each facility is necessary to show compliance with the permit limitations specified in Condition D.1.1 "Volatile Organic Compound". However, for clarification of the stack testing requirements Condition D.1.3 (now re-numbered Condition D.1.2) "Testing Requirements" has been changed to be as follows:

~~D.1.3~~ Testing Requirements [326 IAC 2-1-3]

That pursuant to 326 IAC 2-1-3 (Construction and Operating Permit Requirements) compliance

stack tests shall be performed for **percentage blowing agent lost and actual volatile organic compound (VOC) emissions** from the polystyrene foam extrusion line and the CPET foam extrusion line within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. These tests shall be performed according to 326 IAC 3-2.1 (Source Sampling Procedures) using the methods specified in the rule or as approved by the Commissioner.

- (a) A test protocol shall be submitted to the OAM, Compliance Data Section, 35 days in advance of the test.
- (b) The Compliance Data Section shall be notified of the actual test date at least two (2) weeks prior to the date.
- (c) All test reports must be received by the Compliance Data Section within 45 days of completion of the testing.
- (d) Whenever the results of the stack test performed exceed the level specified in this permit, appropriate corrective actions shall be implemented within thirty (30) days of receipt of the test results. These actions shall be implemented immediately unless notified by OAM that they are acceptable. The Permittee shall minimize emissions while the corrective actions are being implemented.
- (e) Whenever the results of the stack test performed exceed the level specified in this permit, a second test to demonstrate compliance shall be performed within 120 days. Failure of the second test to demonstrate compliance may be grounds for immediate revocation of this permit to operate the affected facility.

Comment 7:

Facility Condition D.1.4: In order to clarify these BACT conditions we propose the following changes.

- (c) "... integrity **following installation.**"
- (e) delete (this is addressed in (j))
- (f) delete (this is addressed in (h))
- (g) "operation. . . . **Section C - General Record Keeping Requirements does not apply to this condition.**"
- (h) "All **readily visible and exposed** piping. . . leaks. **Section C - General Record Keeping Requirements does not apply to this condition.**"
- (i) "month. . . . **Section C - General Record Keeping Requirements does not apply to this condition.**"
- (j) "properly. . . . **Section C - General Record Keeping Requirements does not apply to this conditions.**"
- (k) delete (this is addressed in (h))

Response to Comment 7:

Condition D.1.4 (now re-numbered Condition D.1.3) "Best Available Control Technology" has been changed to be as follows:

D.1.43 Best Available Control Technology (BACT) Requirements [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the source shall comply with the following requirements:

- (a) During off-loading of blowing agents (Confidential Information) the atmosphere in the storage vessel is vented back to the delivery tanker or rail car instead of being vented to the ambient air.

- (b) All transfer piping conveying blowing agent from the storage vessel to the facility operations is double walled. Interstitial monitoring is present to detect leaks from the inner piping or flanges.
- (c) All tubing in the plant is high pressure usage tested for integrity **following installation**.
- (d) Combustible gas meters are present in the process areas to detect the presence of blowing agent (Confidential Information). If blowing agent (Confidential Information) is detected, the source will be investigated through visual or gas detection inspection. Any leaks will be repaired.
- (e) During extrusion, immediately in front of the die lips is an area of unexpanded gel known as the halo. Air rings inside and outside of the sheet apply air directly to the halo to properly skin the foam, thus reducing the emission of blowing agent into the atmosphere during extrusion.
- (f) Visual inspections of all tubing and equipment for possible VOC emission leaks shall be performed once per shift.
- (g) Daily inspections of the two (2) foam tandem extruders shall be performed to verify that there are no possible malfunctions in the operation.
- (h) All **readily visible and exposed** piping and tubing shall be inspected daily for any possible leaks.
- (i) The combustible gas meters shall be calibrated once per month.
- (j) The unexpanded gel known as the halo shall be inspected daily to verify they are operating properly.

If records were not kept of the above inspections, the source would not be able to prove that the facilities were in compliance with this requirement. The lack of proof of compliance could result in a violation of the permit conditions and result in an Enforcement proceeding. Therefore, it is necessary to keep records of the inspections required by this condition. For further clarification, Condition D.1.5 (now re-numbered Condition D.1.4) "Record Keeping Requirements" has been changed to be as follows:

D.1.54 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall keep records of blowing agent (Confidential Information), **total** polystyrene pellets and **total** CPET pellets usage on a daily basis.
- (b) **To document compliance with Condition D.1.3, the Permittee shall keep records of all inspections performed.**
- ~~(b)~~(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Comment 8:

Facility Condition D.1.5: We do not believe records of pellet usage is information necessary to

demonstrate compliance with condition D.1.1.

Condition D.1.1 limits blowing agent and not pellet usage.

We request that "polystyrene pellets and CPET pellets usage" be deleted from this condition.

Response to Comment 8:

Record keeping of pellet usage is necessary to show that the assumptions used in the emission calculations submitted in the permit application are indeed correct. Verification pellet usage at each facility is necessary to show compliance with the permit limitations specified in Condition D.1.1 "Volatile Organic Compound". Condition D.1.4(a) "Record Keeping Requirements" has been changed to be as follows for clarification:

- (a) To document compliance with Condition D.1.1, the Permittee shall keep records of blowing agent (Confidential Information), **total** polystyrene pellets and **total** CPET pellets usage on a daily basis.

Comment 9:

Facility Condition D.2.4: This condition requires daily visible emission notations and associated recordkeeping. We believe this is excessive. Based on a comparison of the allowable emissions stated in D.2.1 of 1.05 lb/hr to 1.19 lb/hr and the potential to emit stated in Attachment 4 of our application of 0.66 lb/hr and 0.79 lb/hr emission higher than the allowable emission rates are highly unlikely. We request that the second sentence of D.2.4(a) be deleted and D.2.4(d) be deleted. Furthermore we request that the word "Daily" in D.2.4(a) be revised to "Any".

Response to Comment 9:

Daily emissions notations are required to document compliance with many permit requirements including Condition C.2 "Opacity", Condition D.2.1 "Particulate Matter", and Condition D.2.3 "Particulate Matter". The Office of Air Management feels that if visible emissions were verified less frequently, the possibility for a malfunction of the control equipment would not be detected soon enough and would lead to a deviation from the permit requirements. Upon further review, Condition D.2.4 "Visible Emissions Notations" has been changed to be as follows:

D.2.4 Visible Emissions Notations

- (a) Daily visible emission notations of the foam scrap regrinders stack exhausts shall be performed 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) The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.~~

Comment 10:

Facility Condition D.2.5: This condition does not apply to our source because we do not have spray booths. We request that this condition be deleted.

Response to Condition 10:

Condition D.2.5 "Monitoring" has been changed to be as follows:

D.2.5 Monitoring Filter Inspections

- ~~(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, daily observations shall be made of the overspray while one or more of the booths regrinders are in operation. The Preventive Maintenance Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section B - Preventive Maintenance Plan, shall be considered a violation of this permit.~~
- ~~(b) Weekly inspections shall be performed of the emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an overspray emission, evidence of overspray emission, or other abnormal emission is observed. The Preventive Maintenance Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section B - Preventive Maintenance Plan, shall be considered a violation of this permit.~~

An inspection shall be performed each calendar quarter of all filters controlling the two (2) regrinders when venting to the atmosphere. Inspections are optional when venting indoors. All defective filters shall be replaced.

Comment 11:

Facility Condition D.3.3 and D.3.4: These conditions require inspections and recordkeeping for the two blowing agent storage tanks. Item 3 in our October 27, 1997 NOD response letter demonstrates that both tanks are not regulated by any federal rule. We do not believe the proposed inspection and recordkeeping provisions are required by state or federal rules and request that Conditions D.3.3 and D.3.4 be deleted.

Response to Comment 11:

Pursuant to 40 CFR 60.110b (c), a volatile organic liquid storage tank having storage capacity greater than seventy-five (75) cubic meters but less than one hundred fifty-one (151) cubic meters with a maximum true vapor pressure less than 15.0 kPa are subject to the provisions stated in 40 CFR 116b (a) and (b) and are exempt from the rest of this subpart. There will be no changes in the final permit due to this comment.

Comment 12:

Based on our preceding comments regarding the proposed permit, we request the corresponding changes to the **Technical Support Document** also be made.

1. Page 15 of 19, Work Practice Standards and Limit:

- Item (3) - delete "once per month" and replace with "**following installation**"
- Item (5) - delete
- Item (6) - insert "**all readily visible and exposed** piping"
- Item (9) - delete

Response to Comment 12:

Page 15 of 19, "Work Practice Standards and Limit" should be changed to be as follows:

Work Practice Standards and Limit

Since Genpak proposes BACT to be no add-on control equipment, the source has submitted the following work practice standards and established the following limit:

- (1) During off-loading of blowing agents (Confidential Information) the atmosphere in the storage vessel is vented back to the delivery tanker or rail car instead of being vented to the ambient air.
- (2) All transfer piping conveying blowing agent from the storage vessel to the facility operations is double walled. Interstitial monitoring is present to detect leaks from the inner piping or flanges.
- (3) All tubing in the plant is high pressure usage tested for integrity once per month **following installation.**
- (4) Combustible gas meters are present in the process areas to detect the presence of blowing agent (Confidential Information). If blowing agent (Confidential Information) is detected, the source will be investigated through visual or gas detection inspection. Any leaks will be repaired.
- (5) During extrusion, immediately in front of the die lips is an area of unexpanded gel known as the halo. Air rings inside and outside of the sheet apply air directly to the halo to properly skin the foam, thus reducing the emission of blowing agent into the atmosphere during extrusion.
- (6) Visual inspections of all **readily visible and exposed** tubing and equipment for possible VOC emission leaks shall be performed once per shift.
- (7) Pursuant to 326 IAC 8-1-6 (General Reduction Requirements), the blowing agent used on the polystyrene extrusion line shall be limited to 166 tons per year. The loss of blowing agent during extrusion, warehousing, and thermoforming shall be limited to 8% and the loss of blowing agent during regrind shall be limited to 100%. This limit is equivalent to 63 tons VOC emissions per year. This limit was established as follows:

The potential VOC emissions from this line shall be limited to 63 tons/yr
During extrusion, warehousing, and thermoforming, there is an 8% loss of blowing agent. After extrusion, warehousing and thermoforming, 29% of the materials are reground. During regrind, there is a 100% loss of blowing agent.

Blowing agent usage (tons/yr) * 8% (loss for extrusion, warehousing and thermoforming)
+ Blowing agent usage (tons/yr) * 92% (after extrusion, warehousing and thermoforming)
* 29% (regrind) * 100% (loss for regrind) = 63 tons per year

Blowing agent usage = 181 tons/365-day period, rolled on a daily basis.
A compliance stack test shall be performed to ensure compliance with this requirement.

Any change or modification to this facility shall allow for OAM to re-open this analysis.

- (8) Pursuant to 326 IAC 8-1-6 (General Reduction Requirements), the blowing agent used on the CPET extrusion line shall be limited to 79 tons per year. The loss of blowing agent during extrusion, warehousing, and thermoforming shall be limited to 30% and the loss of blowing agent during regrind shall be limited to 80%. This limit is equivalent to 43

tons VOC emissions per year. This limit was established as follows:

The potential VOC emissions from this line shall be limited to 43 tons/yr. During extrusion, warehousing, and thermoforming, there is a 30% loss of blowing agent. After extrusion, warehousing and thermoforming, 35% of the materials are reground. During regrind, there is an 80% loss of blowing agent.

Blowing agent usage (tons/yr) * 30% (loss for extrusion, warehousing, and thermoforming) + Blowing agent usage (tons/yr) * 70% (after extrusion, warehousing, and thermoforming) * 35% (regrind) * 80% (loss for regrind) = 43 tons per year

Blowing agent usage = 86 tons/365-day period, rolled on a daily basis.
A compliance stack test shall be performed to ensure compliance with this requirement.

Any change or modification to this facility shall allow for OAM to re-open this analysis.

- (9) If any additional extrusion lines are added to this source, even if their individual volatile organic compound (VOC) emissions are less than twenty-five (25) tons per year, or if the blowing agent is to be changed to another type (Confidential Information), a new Best Available Control Technology (BACT) analysis will be performed for all VOC emission units at the source. The BACT options for the previously permitted emission units shall be re-evaluated.

Concerning deleting "once per month" in Item (3) and deleting Item (5) altogether, monthly inspections of the tubing and piping are required to document compliance with permit requirement Conditions D.1.1 and D.1.4. The Office of Air Management feels that if monthly inspections were performed less frequently, the possibility for a malfunction would not be detected soon enough and would lead to a deviation from the permit requirements.

Concerning deleting item (9), as discussed in the meeting held with Genpak, Keramida, and IDEM, OAM on February 10, 1998, the source is proposing no add-on control because of economic infeasibility as determined in the Best Available Control Technology (BACT) analysis. If, in the future, the source proposed to construct additional extrusion lines or change the type of blowing agent used, an analysis of the entire source may cause the cost per ton VOC removed to decrease and therefore become economically feasible. This re-evaluation was agreed upon by all parties to be part of the Best Available Control Technology (BACT) analysis.

The Technical Support Document (TSD) should reflect these changes. However, the TSD is not physically changed after Public Notice. The changes are noted here in the Addendum.

Upon further review, the following changes were made to the final permit (strikeout added to show what was deleted and bold added to show what was added):

1. Condition C.8 "Performance Testing" has been changed to be as follows to correct the rule cite:

C.8 Performance Testing ~~[326 IAC 3-2.4]~~ [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of ~~326 IAC 3-2.4~~ **326 IAC 3-6** (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by IDEM, OAM.

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 Management

100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days before the intended test date.

- (b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

2. Condition D.1.1 "Volatile Organic Compound" has been changed to be as follows to clarify emission limitations:

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

That pursuant to 326 IAC 8-1-6 (General Reduction Requirements), the source shall comply with the following requirements:

- (a) The blowing agent used on the polystyrene extrusion line shall be limited to 181 tons per 365-day period, rolled on a daily basis. This limit is based on the assumption that the loss of blowing agent during extrusion, warehousing, and thermoforming is 8% and the loss of blowing agent during regrind is 100%. This limit is equivalent to **potential to emit (PTE) VOC of 63 tons VOC emissions per 365-day period. This is equivalent to 14.38 pounds VOC per hour.** Any change or modification to this facility shall allow for OAM to re-open this analysis.
- (b) The blowing agent used on the CPET extrusion line shall be limited to 86 tons per 365-day period, rolled on a daily basis. This limit is based on the assumption that the loss of blowing agent during extrusion, warehousing, and thermoforming is 30% and the loss of blowing agent during regrind is 80%. This limit is equivalent to **potential to emit (PTE) VOC of 43 tons VOC emissions per 365-day period. This is equivalent to 9.81 pounds VOC per hour.** Any change or modification to this facility shall allow for OAM to re-open this analysis.
- (c) If any additional extrusion lines are added to this source, even if their individual volatile organic compound (VOC) emissions are less than twenty-five (25) tons per year, or if the blowing agent is to be changed to another type (Confidential Information), a new Best Available Control Technology (BACT) analysis will be performed for all VOC emission units at the source. The BACT options for the previously permitted emission units shall be re-evaluated.

3. Condition D.3.3 "Monitoring" has been changed to be as follows:

D.3.3 Monitoring

~~The Permittee shall perform daily inspections to verify that the pressurized valves on the two storage tanks are operating properly.~~ **Monitoring of this facility is not required by this permit. However, any change or modification to this facility, as specified in 326 IAC 2-1, may require this facility to have monitoring requirements.**

4. The equivalent pounds per hour VOC emission has also been added to the Quarterly Reports.