



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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

TO: Interested Parties / Applicant

DATE: April 25, 2012

RE: DSM Engineering Plastics / 163-30875-00104

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

## Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures  
FNPER.dot12/03/07



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## New Source Construction and Federally Enforceable State Operating Permit OFFICE OF AIR QUALITY

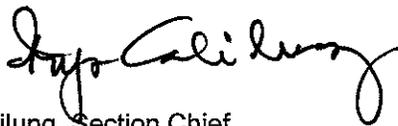
**DSM Engineering Plastics  
2267 W. Mill Rd.  
Evansville, Indiana 47220**

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

**The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.**

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

Operation Permit No.: F 163-30875-00104	
Issued by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: April 25, 2012  Expiration Date: April 25, 2017

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## SECTION A SOURCE SUMMARY

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

### A.1 General Information [326 IAC 2-8-3(b)]

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The Permittee owns and operates a stationary existing plastic pellet and molding manufacturing source.

Source Address:	2267 W. Mill Rd., Evansville, Indiana 47220
General Source Phone Number:	(812) 435-7632
SIC Code:	3087 (Custom Compounding of Purchased Plastic Resins)
County Location:	Vanderburgh
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

#### Extruders:

- (a) One (1) Krupp Werner & Pfleiderer Extruder, identified as EX6, constructed in 2000, with a maximum capacity of 6,000 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S-01\* and stack S-03a.  
  
(Stack S-01 is exhausting inside the building.)
- (b) One (1) Berstorff Extruder, identified as EX34, constructed in 1995, with a maximum capacity of 4,000 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S-01 and stack S-05.
- (c) One (1) Berstorff Extruder, identified as EX36, constructed in 1988, with a maximum capacity of 3,000 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S-01 and stack S-04.
- (d) One (1) HPM Extruder, identified as EX95, constructed in 1981, with a maximum capacity of 3,000 pounds per hour, using dust collector DC-1 as control, and exhausting to exhausting to stack S-01 and stack S-06.
- (e) One (1) Werner & Pfleiderer Extruder, identified as EX33, constructed in 1995, with a maximum capacity of 1,000 pounds per hour, using dust collector DC-08 as control, and exhausting to stack S-08 and stack S-07.
- (f) One (1) Lab Berstorff Extruder, identified as EX31, constructed in 1995, with a maximum capacity of 76 pounds per hour, using dust collector DC-16 as control, and exhausting to stack S-16.

- (g) One (1) Werner & Pfleiderer Extruder, identified as EX35, constructed in 1997, with a maximum capacity of 5,500 pounds per hour, using dust collector DC-11 and a smog hog electrostatic filter as control, and exhausting to stack S-09, S-11 and S-12.
- (h) One (1) Berstorff Extruder (R&D), identified as EX39, constructed in 1988, with a maximum capacity of 300 pounds per hour, using dust collector DC-16 as control, and exhausting to stack S-16.
- (i) One (1) Sterling Extruder (R&D), identified as EX40, constructed in 1973, with a maximum capacity of 300 pounds per hour, using dust collector DC-16 as control, and exhausting to stack S-16.
- (j) One (1) Extruder, identified as EX7, approved for construction in 2012, with a maximum capacity of 8,260 pounds per hour, using dust collector DC-26 as control, and exhausting to stack S-26.

Blenders:

- (k) One (1) Blender, identified as BL7, approved for construction in 2012, with a maximum capacity of 8,260 pounds per hour, using dust collector DC-26 as control, and exhausting to stack S-26.
- (l) One (1) Blender, identified as BL06, constructed in 2000, with a maximum capacity of 3,000 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S-01.
- (m) One (1) Blender, identified as BL33, constructed in 1995, with a maximum capacity of 400 pounds per hour, using dust collector DC-8 as control, and exhausting to stack S-08.
- (n) One (1) Blender, identified as BL034, constructed in 1995, with a maximum capacity of 1,100 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S-01.
- (o) One (1) Blender, identified as BL035, constructed in 1997, with a maximum capacity of 3,000 pounds per hour, using dust collector DC-11 as control, and exhausting to stack S-11.
- (p) One (1) Blender, identified as BL036, constructed in 1998, with a maximum capacity of 1,700 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S-01.
- (q) One (1) Blender, identified as BL095, constructed in 1981, with a maximum capacity of 1,500 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S01.

Molding Machines:

- (r) One (1) Toshiba Molding machine (R&D), identified as MM08, constructed in 1985, with a maximum capacity of 14.4 pounds per hour, with no control and exhausting to indoors.
- (s) One (1) Arburg Molding machine (R&D), identified as MM10, constructed in 1997, with a maximum capacity of 4.8 pounds per hour, with no control and exhausting to indoors.
- (t) One (1) Arburg Molding machine (R&D), identified as MM12, constructed in 1999, with a maximum capacity of 4.8 pounds per hour, with no control and exhausting to indoors.

- (u) One (1) Toshiba Molding machine (R&D), identified as MM13, constructed in 2005, with a maximum capacity of 12.0 pounds per hour, with no control and exhausting to indoors.

Miscellaneous:

- (v) One (1) Abrasive Blasting Unit, identified as ABU1, constructed in 1990's, with a maximum capacity of 187.5 pounds per hour of glass bead, using dust collector DC-01 as control, and exhausting to stack S-01.
- (w) One (1) Maintenance Part Washer, identified as CC1, constructed in 2003, with a maximum capacity of 1 gallon per day.
- (x) One (1) East Cooling Tower, identified as ECT, constructed in 2005, with a maximum capacity of 1,000 gallon per minute.
- (y) One (1) West Cooling Tower, identified as WCT, constructed in 1989, with a maximum capacity of 800 gallon per minute.
- (z) One (1) Aerosol Can Crushing Unit, identified as ACC1, constructed in 2005, with a maximum capacity of 800 cans per year.

Raw Material Handling and Storage:

- (aa) Raw Material Handling, and Storage, controlled by Filter DC-25, and exhausting to Stack S-25 and consisting of the following:
  - (1) One (1) Bulk Rail Loadout System;
  - (2) One (1) Bulk Truck Loadout System;
  - (3) One (1) Storage Silo, identified as Tank 0105, installed in 1970, with a maximum capacity of 200,000 pounds of nylon;
  - (4) One (1) Storage Silo, identified as Tank 0106, installed in 1970, with a maximum capacity of 200,000 pounds of nylon;
  - (5) One (1) Storage Silo, identified as Tank 0107, installed in 1970, with a maximum capacity of 200,000 pounds of nylon;
  - (6) One (1) Storage Silo, identified as Tank 0108, installed in 1970, with a maximum capacity of 200,000 pounds of nylon;

[Note: Powders and fiberglass arrived in bags or sacks and remained in containers until usage.]

Product Handling and Storage

- (bb) One (1) product handling and storage system consisting of the following:
  - (1) One (1) Storage Silo, identified as Tank 0509, installed in 1970, with a maximum capacity of 240,000 pounds of finished goods.

- (2) One (1) Storage Silo, identified as Tank 0510, installed in 1970, with a maximum capacity of 240,000 pounds of finished goods.

The above silos controlled by dust collector DC-01 and exhausting to stack S-01

- (3) One (1) Storage Silo, identified as Tank 0507, installed in 1989, with a maximum capacity of 60,000 pounds of finished goods.
- (4) One (1) Storage Silo, identified as Tank 0111, installed in 1999, with a maximum capacity of 220,000 pounds of finished goods.
- (5) One (1) Storage Silo, identified as Tank 0112, installed in 1999, with a maximum capacity of 220,000 pounds of finished goods.
- (6) One (1) Storage Silo, identified as Tank 0503, installed in 1980, with a maximum capacity of 60,000 pounds of finished goods.
- (7) One (1) Storage Silo, identified as Tank 0504, installed in 1980, with a maximum capacity of 60,000 pounds.
- (8) One (1) Storage Silo, identified as Tank 0505, installed in 1980, with a maximum capacity of 60,000 pounds of finished goods.
- (9) One (1) Storage Silo, identified as Tank 0506, installed in 1980, with a maximum capacity of 60,000 pounds of finished goods.

The above silo (3) - (9) controlled by dust collector DC-14 and exhausting to stack S-14.

- (10) One (1) Storage Silo, identified as Tank R1, installed in 1992, with a maximum capacity of 62,000 pounds of finished goods.

Note: Tank R1 can also hold raw materials.

- (cc) One (1) Bag Packaging System;
- (dd) One (1) Box Packaging System;
- (ee) One (1) Re-packaging System;
- (ff) One (1) Bulk Truck Loadout System.

#### A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

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This stationary source also includes the following insignificant activities:

- (a) Thirty-four (34) natural gas fired units, with a combined heat input of 15.3 MMBtu/hr.
- (b) UL Testing Instrument, with maximum capacity of 150 pounds per year of raw materials or products.
- (c) Ash Testing Instrument, with maximum capacity of 173 pounds per year of raw materials or products.
- (d) Moisture Testing Instrument, with maximum capacity of 544 pounds per year of raw materials or products.

- (e) Oven, with maximum capacity of 120 pounds per year of raw materials or products.
- (f) Maintenance Booth, with maximum capacity of 72 miscellaneous parts per year.
- (g) Five (5) welding operations, using 2.7 pounds per hour of weld wire.

A.4 FESOP Applicability [326 IAC 2-8-2]

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This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

## SECTION B GENERAL CONDITIONS

### B.1 Definitions [326 IAC 2-8-1]

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

### B.2 Revocation of Permits [326 IAC 2-1.1-9(5)]

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Pursuant to 326 IAC 2-1.1-9(5)(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.3 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4][326 IAC 2-8]

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This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 and 326 IAC 2-8 when prior to the start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), verifying that the emission units were constructed as proposed in the application or the permit. The emission units covered in this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM if constructed as proposed.
- (b) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2 and an Operation Permit Validation Letter is issued.
- (c) The Permittee shall attach the Operation Permit Validation Letter received from the Office of Air Quality (OAQ) to this permit.

### B.4 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

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- (a) This permit, F 163-30875-00104, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

### B.5 Term of Conditions [326 IAC 2-1.1-9.5]

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

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

### B.6 Enforceability [326 IAC 2-8-6] [IC 13-17-12]

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

**B.7 Severability [326 IAC 2-8-4(4)]**

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

**B.8 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]**

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

**B.9 Duty to Provide Information [326 IAC 2-8-4(5)(E)]**

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

**B.10 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]**

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- (a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:
  - (1) it contains a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1), and
  - (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

**B.11 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]**

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- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

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

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

- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.12 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

The Permittee shall implement the PMPs.

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

**B.14 Emergency Provisions [326 IAC 2-8-12]**

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
  - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, or Southwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or  
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)  
Facsimile Number: 317-233-6865  
Southwest Regional Office phone: (812) 380-2305; fax: (812) 380-2304.

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

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

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

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

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

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

**B.15 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

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- (a) All terms and conditions of permits established prior to F 163-30875-00104 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

**B.16 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]**

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The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

**B.17 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]**

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.18 Permit Renewal [326 IAC 2-8-3(h)]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a

certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

**B.19 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]**

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- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

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

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

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

**B.20 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]**

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- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) and (c) without a prior permit revision, if each of the following conditions is met:

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

- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

- (4) The Permittee notifies the:

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

and

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

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

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b)(1) and (c). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(1), (c).

- (b) Emission Trades [326 IAC 2-8-15(b)]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(b).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(c)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.21 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.22 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as

such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

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

B.23 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ no later than thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action or revocation of this permit.

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

B.25 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

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

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

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

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

#### C.2 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM) and greenhouse gases (GHGs), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (4) The potential to emit greenhouse gases (GHGs) from the entire source shall be limited to less than one hundred thousand (100,000) tons of CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>e) per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

#### C.3 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

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

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

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

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

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

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

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

### **Testing Requirements [326 IAC 2-8-4(3)]**

#### **C.8 Performance Testing [326 IAC 3-6]**

---

- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

### **Compliance Requirements [326 IAC 2-1.1-11]**

#### **C.9 Compliance Requirements [326 IAC 2-1.1-11]**

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

### **Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

#### **C.10 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]**

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

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

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

#### **C.11 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]**

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

### **Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

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

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

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

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

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

no later than ninety (90) days after the date of issuance of this permit.

The ERP does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.13 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

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

C.14 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

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

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
- (1) initial inspection and evaluation;
  - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system);  
or
  - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

- (1) monitoring results;
- (2) review of operation and maintenance procedures and records; and/or
- (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall record the reasonable response steps taken.

**C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

**C.16 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]**

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following:
  - (AA) All calibration and maintenance records.
  - (BB) All original strip chart recordings for continuous monitoring instrumentation.
  - (CC) Copies of all reports required by the FESOP.

Records of required monitoring information include the following:

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

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

makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

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

**C.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]**

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- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (b) The address for report submittal is:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

**Stratospheric Ozone Protection**

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

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

## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

#### Extruders:

- (a) One (1) Krupp Werner & Pfleiderer Extruder, identified as EX6, constructed in 2000, with a maximum capacity of 6,000 pounds per hour, using dust collector DC-1, and exhausting to stack S-01\* and stack S-03a.  
  
(Stack S-01 is exhausting inside the building.)
- (b) One (1) Berstorff Extruder, identified as EX34, constructed in 1995, with a maximum capacity of 4,000 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S-01 and stack S-05.
- (c) One (1) Berstorff Extruder, identified as EX36, constructed in 1988, with a maximum capacity of 3,000 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S-01 and stack S-04.
- (d) One (1) HPM Extruder, identified as EX95, constructed in 1981, with a maximum capacity of 3,000 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S-06.
- (e) One (1) Werner & Pfleiderer Extruder, identified as EX33, constructed in 1995, with a maximum capacity of 1,000 pounds per hour, using dust collector DC-08 as control, and exhausting to stack S-08 and stack S-07.
- (f) One (1) Lab Berstorff Extruder, identified as EX31, constructed in 1995, with a maximum capacity of 76 pounds per hour, using dust collector DC-16 as control, and exhausting to stack S-16.
- (g) One (1) Werner & Pfleiderer Extruder, identified as EX35, constructed in 1997, with a maximum capacity of 5,500 pounds per hour, using dust collector DC-11 and a smog hog electrostatic filter as control, and exhausting to stack S-09, S-11 and S-12.
- (h) One (1) Berstorff Extruder (R&D), identified as EX39, constructed in 1988, with a maximum capacity of 300 pounds per hour, using dust collector DC-16 as control, and exhausting to stack S-16.
- (i) One (1) Sterling Extruder (R&D), identified as EX40, constructed in 1973, with a maximum capacity of 300 pounds per hour, using dust collector DC-16 as control, and exhausting to stack S-16.
- (j) One (1) Extruder, identified as EX7, approved for construction in 2012, with a maximum capacity of 8,260 pounds per hour, using dust collector DC-26 as control, and exhausting to stack S-26.

#### Blenders:

- (k) One (1) Blender, identified as BL7, approved for construction in 2012, with a maximum capacity of 8,260 pounds per hour, using dust collector DC-26 as control, and exhausting to stack S-26.

- (l) One (1) Blender, identified as BL06, constructed in 2000, with a maximum capacity of 3,000 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S-01.
- (m) One (1) Blender, identified as BL33, constructed in 1995, with a maximum capacity of 400 pounds per hour, using dust collector DC-8 as control, and exhausting to stack S-08.
- (n) One (1) Blender, identified as BL034, constructed in 1995, with a maximum capacity of 1,100 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S-01.
- (o) One (1) Blender, identified as BL035, constructed in 1997, with a maximum capacity of 3,000 pounds per hour, using dust collector DC-11 as control, and exhausting to stack S-11.
- (p) One (1) Blender, identified as BL036, constructed in 1998, with a maximum capacity of 1,700 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S-01.
- (q) One (1) Blender, identified as BL095, constructed in 1981, with a maximum capacity of 1,500 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S01.

Machines:

- (r) One (1) Toshiba Molding machine (R&D), identified as MM08, constructed in 1985, with a maximum capacity of 14.4 pounds per hour, with no control and exhausting to indoors.
- (s) One (1) Arburg Molding machine (R&D), identified as MM10, constructed in 1997, with a maximum capacity of 4.8 pounds per hour, with no control and exhausting to indoors.
- (t) One (1) Arburg Molding machine (R&D), identified as MM12, constructed in 1999, with a maximum capacity of 4.8 pounds per hour, with no control and exhausting to indoors.
- (u) One (1) Toshiba Molding machine (R&D), identified as MM13, constructed in 2005, with a maximum capacity of 12.0 pounds per hour, with no control and exhausting to indoors.

Miscellaneous:

- (v) One (1) Abrasive Blasting Unit, identified as ABU1, constructed in 1990's, with a maximum capacity of 187.5 pounds per hour of glass bead, using dust collector DC-01 as control, and exhausting to stack S-01.
- (w) One (1) Maintenance Part Washer, identified as CC1, constructed in 2003, with a maximum capacity of 1 gallon per day.
- (x) One (1) East Cooling Tower, identified as ECT, constructed in 2005, with a maximum capacity of 1,000 gallon per minute.

(y) One (1) West Cooling Tower, identified as WCT, constructed in 1989, with a maximum capacity of 800 gallon per minute.

(z) One (1) Aerosol Can Crushing Unit, identified as ACC1, constructed in 2005, with a maximum capacity of 800 cans per year.

Raw Material Handling and Storage:

(aa) Raw Material Handling, and Storage, controlled by Filter DC-25, and exhausting to Stack S-25 and consisting of the following:

(1) One (1) Bulk Rail Loadout System;

(2) One (1) Bulk Truck Loadout System;

(3) One (1) Storage Silo, identified as Tank 0105, installed in 1970, with a maximum capacity of 200,000 pounds of nylon;

(4) One (1) Storage Silo, identified as Tank 0106, installed in 1970, with a maximum capacity of 200,000 pounds of nylon;

(5) One (1) Storage Silo, identified as Tank 0107, installed in 1970, with a maximum capacity of 200,000 pounds of nylon;

(6) One (1) Storage Silo, identified as Tank 0108, installed in 1970, with a maximum capacity of 200,000 pounds of nylon;

[Note: Powders and fiberglass arrived in bags or sacks and remained in containers until usage.]

Product Handling and Storage:

(bb) One (1) product handling and storage system consisting of the following:

(1) One (1) Storage Silo, identified as Tank 0509, installed in 1970, with a maximum capacity of 240,000 pounds of finished goods.

(2) One (1) Storage Silo, identified as Tank 0510, installed in 1970, with a maximum capacity of 240,000 pounds of finished goods.

The above silos (1) - (2) controlled by dust collector DC-01 and exhausting to stack S-01

(3) One (1) Storage Silo, identified as Tank 0507, installed in 1989, with a maximum capacity of 60,000 pounds of finished goods.

(4) One (1) Storage Silo, identified as Tank 0111, installed in 1999, with a maximum capacity of 220,000 pounds of finished goods.

(5) One (1) Storage Silo, identified as Tank 0112, installed in 1999, with a maximum capacity of 220,000 pounds of finished goods.

- (6) One (1) Storage Silo, identified as Tank 0503, installed in 1980, with a maximum capacity of 60,000 pounds of finished goods.
- (7) One (1) Storage Silo, identified as Tank 0504, installed in 1980, with a maximum capacity of 60,000 pounds.
- (8) One (1) Storage Silo, identified as Tank 0505, installed in 1980, with a maximum capacity of 60,000 pounds of finished goods.
- (9) One (1) Storage Silo, identified as Tank 0506, installed in 1980, with a maximum capacity of 60,000 pounds of finished goods.

The above silo (3) - (9) controlled by dust collector DC-14 and exhausting to stack S-14.

- (10) One (1) Storage Silo, identified as Tank R1, installed in 1992, with a maximum capacity of 62,000 pounds of finished goods.

Note: Tank R1 can also hold raw materials.

- (cc) One (1) Bag Packaging System;
- (dd) One (1) Box Packaging System;
- (ee) One (1) Re-packaging System;
- (ff) One (1) Bulk Truck Loadout System.

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

### **Emission Limitations and Standards [326 IAC 2-8-4(1)]**

#### **D.1.1 FESOP Limits: PM10 and PM2.5 [326 IAC 2-8-4]**

Pursuant to 326 IAC 2-8-4, the Permittee shall comply with the following:

- (1) PM10 from the raw material handling and storages, which include rail loadout system, truck loadout system and all tanks, exhausting to stack S-25 shall not exceed 3.97 lbs/hr.
- (2) PM2.5 from the raw material handling and storages, which include rail loadout system, truck loadout system and all tanks, exhausting to stack S-25 shall not exceed 3.97 lbs/hr.

Compliance with these limits, combined with the potential to emit PM10, and PM2.5 from all other emission units at this source, shall limit the source-wide total potential to emit of PM10, and PM2.5 to less than 100 tons per 12 consecutive month period, and shall render 326 IAC 2-7 (Part 70 Permits), not applicable.

#### **D.1.2 Particulate Emission Limitations [326 IAC 6-3-2]**

Particulate emissions from raw materials handling; bulk rail loading system, bulk truck loading system and storages shall not exceed the 25.96 pounds per hour each.

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

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

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

#### D.1.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

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Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee 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.1.4 Preventive Maintenance Plan [326 IAC 1-6-3]

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

### **Compliance Determination Requirements**

#### D.1.5 Particulate Control

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In order to comply with Conditions D.1.1 and D.1.2, dust collectors for particulate control shall be in operation and control emissions from the operation at all times that loading, extruding, and blending, are in operation.

### **Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

#### D.1.6 Visible Emissions Notations

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- (a) Visible emission notations of the exhaust loading, extruding, blending stacks S-25 shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

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

#### D.1.7 Broken or Failed Bag Detection

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

Bag failure can be indicated by a significant drop in the dust collectors' pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

#### D.1.8 Record Keeping Requirements

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- (a) To document the compliance status with Condition D.1.6 the Permittee shall maintain daily records of visible emission notations of the stack loading exhaust stack S-25. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did not operate that day).
- (b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: DSM Engineering Plastics  
Source Address: 2267 W. Mill Rd., Evansville, Indiana 47220  
FESOP Permit No.: F 163-30875-00104

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Date:

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: DSM Engineering Plastics  
Source Address: 2267 W. Mill Rd., Evansville, Indiana 47220  
FESOP Permit No.: F 163-30875-00104

**This form consists of 2 pages**

**Page 1 of 2**

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

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

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

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

**Page 2 of 2**

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

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 COMPLIANCE AND ENFORCEMENT BRANCH  
 FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
 QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: DSM Engineering Plastics  
 Source Address: 2267 W. Mill Rd., Evansville, Indiana 47220  
 FESOP Permit No.: F 163-30875-00104

**Months:** \_\_\_\_\_ **to** \_\_\_\_\_ **Year:** \_\_\_\_\_

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C- General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked ΔNo deviations occurred this reporting period@.	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

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

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

DSM Engineering Plastics  
2267 W. Mill Rd.  
Evansville, Indiana 47220

Affidavit of Construction

I, \_\_\_\_\_, being duly sworn upon my oath, depose and say:  
(Name of the Authorized Representative)

1. I live in \_\_\_\_\_ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of \_\_\_\_\_ for \_\_\_\_\_  
(Title) (Company Name)
3. By virtue of my position with \_\_\_\_\_, I have personal  
(Company Name)  
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of \_\_\_\_\_  
(Company Name)
4. I hereby certify that DSM Engineering Plastics 2267 W. Mill Rd., Evansville, Indiana 47220, completed construction of the plastic pellet and molding manufacturing facilities on \_\_\_\_\_ in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on October 2, 2011 and as permitted pursuant to New Source Construction Permit and Federally Enforceable State Operating Permit No. F 163-30875-00104, Plant ID No. 163-00104 issued on \_\_\_\_\_.
5. Additional (operations/facilities) were constructed/substituted as described in the attachment to this document and were not made in accordance with the construction permit.

Further Affiant said not.

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

Signature \_\_\_\_\_  
Date \_\_\_\_\_

STATE OF INDIANA)  
)SS

COUNTY OF \_\_\_\_\_ )

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

Signature \_\_\_\_\_  
Name \_\_\_\_\_ (typed or printed)

**Indiana Department of Environmental Management  
Office of Air Quality**

Addendum to the Technical Support Document (ATSD) for a  
New Source Review and  
Federally Enforceable State Operating Permit (FESOP)

**Source Background and Description**

<b>Source Name:</b>	<b>DSM Engineering Plastics</b>
<b>Source Location:</b>	<b>2267 W. Mill Rd, Evansville, IN 47220</b>
<b>County:</b>	<b>Vanderburgh</b>
<b>SIC Code:</b>	<b>3087 (Custom Compounding of Purchased Plastic Resins)</b>
<b>Operation Permit No.:</b>	<b>F 163-30875-00104</b>
<b>Permit Reviewer:</b>	<b>Renee Traivaranon</b>

On March 19, 2012, the Office of Air Quality (OAQ) had a notice published in the Evansville Courier in Evansville, Indiana, stating that DSM Engineering Plastics 30875 had applied for a New Source Review and Federally Enforceable State Operating Permit (FESOP) to add nylon extruder and associate equipment to the stationary existing plastic pellet and molding manufacturing source. The notice also stated that the OAQ proposed to issue a FESOP for this operation 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.

**Comments and Responses**

No comments were received during the public notice period.

**Additional Changes**

IDEM, OAQ has decided to make additional revisions to the permit as described below, with deleted language as ~~strikeouts~~ and new language **bolded**.

- (1) The Indiana Air Pollution Control Board issued revisions to 326 IAC 2, on October 27, 2010. These revisions resulted in changes to the rule cites listed in the permit. These changes are not changes to the underlying provisions. The change is only to the cite of these rules in Section B - Operational Flexibility. IDEM, OAQ has also clarified the rule cite for the Preventive Maintenance Plan.

B.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][~~326 IAC 2-8-5(a)(1)~~  
.....

B.20 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]  
(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) **and (c)** ~~through (d)~~ without a prior permit revision, if each of the following conditions is met:

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

- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

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

and

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

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

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15 ~~(b) through (d)~~ **(b)(1) and (c)**. The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15 ~~(b)(2), (c)(1), and (d)~~ **(b)(1) and (c)**.

- (b) Emission Trades [326 IAC 2-8-15 ~~(e)~~ **(b)**]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15 ~~(e)~~ **(b)**.
- (c) Alternative Operating Scenarios [326 IAC 2-8-15 ~~(d)~~ **(c)**]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

- (2) IDEM, OAQ has clarified the Permittee's responsibility with regards to record keeping.

C.16 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring

sample, measurement, report, or application. **Support information includes the following:**

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

**Records of required monitoring information include the following:**

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

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

- (b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.
- (3) IDEM, OAQ has clarified the interaction of the Quarterly Deviation and Compliance Monitoring Report and the Emergency Provisions.

C.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. **Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph.**

.....  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT  
.....

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

<b>DEM Contact</b>
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- (a) Questions regarding this New Source Review and Federally Enforceable State Operating Permit can be directed to Ms. Renee Traivaranon at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) (234-5615) or toll free at 1-800-451-6027 extension (4-5615).
- (b) A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov](http://www.idem.in.gov)

## Indiana Department of Environmental Management Office of Air Quality

### Technical Support Document (TSD) for a New Source Review and Federally Enforceable State Operating Permit (FESOP)

#### Source Description and Location

<b>Source Name:</b>	<b>DSM Engineering Plastics</b>
<b>Source Location:</b>	<b>2267 W. Mill Rd, Evansville, IN 47220</b>
<b>County:</b>	<b>Vanderburgh</b>
<b>SIC Code:</b>	<b>3087 (Custom Compounding of Purchased Plastic Resins)</b>
<b>Operation Permit No.:</b>	<b>F 163-30875-00104</b>
<b>Permit Reviewer:</b>	<b>Renee Traivaranon</b>

On September 2, 2011, the Office of Air Quality (OAQ) received an application from DSM Engineering Plastics related to adding nylon extruder and associate equipment to the stationary existing plastic pellet and molding manufacturing source.

#### Existing Approvals

There have been no previous approvals issued to this source by IDEM, OAQ. The source was previously issued a Municipal Certificate of Operation by the City of Evansville, Environmental Protection Agency.

#### County Attainment Status

The source is located in Vanderburgh County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O <sub>3</sub>	Attainment effective January 30, 2006, for the Evansville area, including Vanderburgh County, for the 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Not designated.
<sup>1</sup> Attainment effective October 18, 2000, for the 1-hour ozone standard for the Evansville area, including Vanderburgh County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour designation was revoked effective June 15, 2005. Unclassifiable or attainment effective November 2, 2011, for PM2.5.	

- (a) **Ozone Standards**  
 Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Vanderburgh 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.

- (b) **PM<sub>2.5</sub>**  
Vanderburgh County has been classified as attainment for PM<sub>2.5</sub>. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM<sub>2.5</sub> emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct PM<sub>2.5</sub> significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct PM<sub>2.5</sub> and SO<sub>2</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section
- (c) **Other Criteria Pollutants**  
Vanderburgh County has been classified as attainment or unclassifiable in Indiana for all other pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

### **Fugitive Emissions**

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

### **Background and Description of Unpermitted Emission Units and New Approved Emission Units**

The Office of Air Quality (OAQ) has reviewed an application, submitted by DSM Engineering Plastics on September 9, 2011, requesting to add emission units to a stationary existing plastic pellet and molding manufacturing source. This is the first permit issued to this source.

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

#### Extruders:

- (a) One (1) Krupp Werner & Pfleiderer Extruder, identified as EX6, constructed in 2000, with a maximum capacity of 6,000 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S-01\* and stack S-03a.  
  
(Stack S-01 is exhausting inside the building.)
- (b) One (1) Berstorff Extruder, identified as EX34, constructed in 1995, with a maximum capacity of 4,000 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S-01 and stack S-05.
- (c) One (1) Berstorff Extruder, identified as EX36, constructed in 1988, with a maximum capacity of 3,000 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S-01 and stack S-04.
- (d) One (1) HPM Extruder, identified as EX95, constructed in 1981, with a maximum capacity of 3,000 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S-06.
- (e) One (1) Werner & Pfleiderer Extruder, identified as EX33, constructed in 1995, with a maximum capacity of 1,000 pounds per hour, using dust collector DC-08 as control, and exhausting to stack S-08 and stack S-07.
- (f) One (1) Lab Berstorff Extruder, identified as EX31, constructed in 1995, with a maximum capacity of 76 pounds per hour, using dust collector DC-16 as control, and exhausting to stack S-16.

- (g) One (1) Werner & Pfleiderer Extruder, identified as EX35, constructed in 1997, with a maximum capacity of 5,500 pounds per hour, using dust collector DC-11 and a smog hog electrostatic filter as control, and exhausting to stack S-09, S-11 and S-12.
- (h) One (1) Berstorff Extruder (R&D), identified as EX39, constructed in 1988, with a maximum capacity of 300 pounds per hour, using dust collector DC-16 as control, and exhausting to stack S-16.
- (i) One (1) Sterling Extruder (R&D), identified as EX40, constructed in 1973, with a maximum capacity of 300 pounds per hour, using dust collector DC-16 as control, and exhausting to stack S-16.
- (j) One (1) Extruder, identified as EX7, approved for construction in 2012, with a maximum capacity of 8,260 pounds per hour, using dust collector DC-26 as control, and exhausting to stack S-26.

Blenders:

- (k) One (1) Blender, identified as BL7, approved for construction in 2012, with a maximum capacity of 8,260 pounds per hour, using dust collector DC-26 as control, and exhausting to stack S-26.
- (l) One (1) Blender, identified as BL06, constructed in 2000, with a maximum capacity of 3,000 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S-01.
- (m) One (1) Blender, identified as BL33, constructed in 1995, with a maximum capacity of 400 pounds per hour, using dust collector DC-8 as control, and exhausting to stack S-08.
- (n) One (1) Blender, identified as BL034, constructed in 1995, with a maximum capacity of 1,100 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S-01.
- (o) One (1) Blender, identified as BL035, constructed in 1997, with a maximum capacity of 3,000 pounds per hour, using dust collector DC-11 as control, and exhausting to stack S-11.
- (p) One (1) Blender, identified as BL036, constructed in 1998, with a maximum capacity of 1,700 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S-01.
- (q) One (1) Blender, identified as BL095, constructed in 1981, with a maximum capacity of 1,500 pounds per hour, using dust collector DC-1 as control, and exhausting to stack S01.

Molding Machines:

- (r) One (1) Toshiba Molding machine (R&D), identified as MM08, constructed in 1985, with a maximum capacity of 14.4 pounds per hour, with no control and exhausting to indoors.
- (s) One (1) Arburg Molding machine (R&D), identified as MM10, constructed in 1997, with a maximum capacity of 4.8 pounds per hour, with no control and exhausting to indoors.
- (t) One (1) Arburg Molding machine (R&D), identified as MM12, constructed in 1999, with a maximum capacity of 4.8 pounds per hour, with no control and exhausting to indoors.

- (u) One (1) Toshiba Molding machine (R&D), identified as MM13, constructed in 2005, with a maximum capacity of 12.0 pounds per hour, with no control and exhausting to indoors.

Miscellaneous:

- (v) One (1) Abrasive Blasting Unit, identified as ABU1, constructed in 1990's, with a maximum capacity of 187.5 pounds per hour of glass bead, using dust collector DC-01 as control, and exhausting to stack S-01.
- (w) One (1) Maintenance Part Washer, identified as CC1, constructed in 2003, with a maximum capacity of 1 gallon per day.
- (x) One (1) East Cooling Tower, identified as ECT, constructed in 2005, with a maximum capacity of 1,000 gallon per minute.
- (y) One (1) West Cooling Tower, identified as WCT, constructed in 1989, with a maximum capacity of 800 gallon per minute.
- (z) One (1) Aerosol Can Crushing Unit, identified as ACC1, constructed in 2005, with a maximum capacity of 800 cans per year.

Raw Material Handling and Storage:

- (aa) Raw Material Handling and Storage, controlled by Filter DC-25, and exhausting to Stack S-25 and consisting of the following:
  - (1) One (1) Bulk Rail Loadout System;
  - (2) One (1) Bulk Truck Loadout System;
  - (3) One (1) Storage Silo, identified as Tank 0105, installed in 1970, with a maximum capacity of 200,000 pounds of nylon;
  - (4) One (1) Storage Silo, identified as Tank 0106, installed in 1970, with a maximum capacity of 200,000 pounds of nylon;
  - (5) One (1) Storage Silo, identified as Tank 0107, installed in 1970, with a maximum capacity of 200,000 pounds of nylon;
  - (6) One (1) Storage Silo, identified as Tank 0108, installed in 1970, with a maximum capacity of 200,000 pounds of nylon;

[Note: Powders and fiberglass arrived in bags or sacks and remained in containers until usage.]

Product Handling and Storage:

- (bb) One (1) product handling and storage system consisting of the following:
  - (1) One (1) Storage Silo, identified as Tank 0509, installed in 1970, with a maximum capacity of 240,000 pounds of finished goods.
  - (2) One (1) Storage Silo, identified as Tank 0510, installed in 1970, with a maximum capacity of 240,000 pounds of finished goods.

The above silos (1) - (2) controlled by dust collector DC-01 and exhausting to stack S-01

- (3) One (1) Storage Silo, identified as Tank 0507, installed in 1989, with a maximum capacity of 60,000 pounds of finished goods.
- (4) One (1) Storage Silo, identified as Tank 0111, using fabric filter as control, installed in 1999, with a maximum capacity of 220,000 pounds of finished goods.
- (5) One (1) Storage Silo, identified as Tank 0112, installed in 1999, using fabric filter as control, with a maximum capacity of 220,000 pounds of finished goods.
- (6) One (1) Storage Silo, identified as Tank 0503, installed in 1980, using fabric filter as control with a maximum capacity of 60,000 pounds of finished goods.
- (7) One (1) Storage Silo, identified as Tank 0504, installed in 1980, using fabric filter as control, with a maximum capacity of 60,000 pounds.
- (8) One (1) Storage Silo, identified as Tank 0505, installed in 1980, using fabric filter as control, with a maximum capacity of 60,000 pounds of finished goods.
- (9) One (1) Storage Silo, identified as Tank 0506, installed in 1980, using fabric filter as control, with a maximum capacity of 60,000 pounds of finished goods.

The above silo (3) - (9) controlled by dust collector DC-14 and exhausting to stack S-14.

- (10) One (1) Storage Silo, identified as Tank R1, installed in 1992, with a maximum capacity of 62,000 pounds of finished goods.

Note: Tank R1 can also hold raw materials.

- (cc) One (1) Bag Packaging System;
- (dd) One (1) Box Packaging System;
- (ee) One (1) Re-packaging System;
- (ff) One (1) Bulk Truck Loadout System.

Note: The amount of the raw material handling is dependent of the material extruded. The Extruder (EX7) and Blender (BL07) are new units to be constructed in 2012.

Insignificant activities consisting of the following:

- (a) Thirty-four (34) natural gas fired units, with a combined heat input of 15.3 MMBtu/hr.
- (b) UL Testing Instrument, with maximum capacity of 150 pounds per year of raw materials or products.
- (c) Ash Testing Instrument, with maximum capacity of 173 pounds per year of raw materials or products.
- (d) Moisture Testing Instrument, with maximum capacity of 544 pounds per year of raw materials or products.

- (e) Oven, with maximum capacity of 120 pounds per year of raw materials or products.
- (f) Maintenance Booth, with maximum capacity of 72 miscellaneous parts per year.
- (g) Five (5) welding operations, using 2.7 pounds per hour of weld wire.

**Enforcement Issues**

IDEM is aware that equipment has been constructed prior to receipt of the proper permit. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the construction permit rules.

DSM believes that the addition of Extruder EX-07 will cause the source to need a FESOP to avoid Title V applicability, but that current emission levels (prior to the addition of EX-07, which has not yet been constructed) would only require that DSM obtain a Minor Source Operating Permit.

**Emission Calculations**

See Appendix A of this TSD for detailed emission calculations.

PTE for the raw material handling is dependent on the amount of raw materials extruded since the source will not be handling the material more than it is extruded.

**Permit Level Determination – FESOP**

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

The addition of Extruder EX-07 will cause the source to need a FESOP to avoid Title V applicability, but that current emission levels (prior to the addition of EX-07, which has not yet been constructed) would only require that DSM obtain a Minor Source Operating Permit.

Pollutant	Potential To Emit (tons/year) <sup>(2)</sup>
PM	197.81
PM10 <sup>(1)</sup>	106.19
PM2.5	106.19
SO <sub>2</sub>	negligible
NO <sub>x</sub>	6.57
VOC	91.2
CO	10.41
GHGs as CO <sub>2</sub> e	8,083.1
Single HAP	<10
Total HAPs	<25

- (1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
- (2) DSM does not require a FESOP under its current operations, but only with the addition of extruder EX-07.

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) of PM10 and PM2.5 are each greater than one hundred (100) tons per year. The PTE of all other regulated criteria pollutants are each less than one hundred (100) tons per year. The source would have been subject to the provisions of 326 IAC 2-7. However, the source will be issued a Federally Enforceable State Operating Permit (FESOP) (326 IAC 2-8), because the source will limit emissions to less than the Title V major source threshold levels.
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).
- (c) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) greenhouse gases (GHGs) is less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>e) per year.

**PTE of the Entire Source After Issuance of the FESOP**

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

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of FESOP (tons/year)									
	PM	PM10*	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs as CO <sub>2</sub> e**	Total HAPs	Worst Single HAP
Raw Material Handling and Storage (S-25)	36.92	17.40	17.40	0	0	0	0	0	0	negl.
All Extruders	14.25	14.25	14.25	0	negl	75.73	4.9	0	9.4	9.02
All Blenders	20.97	10.49	10.49	0	0	0	0	0	0	0
All Molding Machines	0.02	0.02	0.02	0	negl	0.026	negl	0	0	0.01
Glass Bead Blaster	11.41	7.98	7.98	0	0	0	0	0	0	0
Parts Washer	0	0	0	0	0	1.2	0	0	0	0
East & West Cooling Towers	0.5	0.5	0.5	0	0	0	0	0	0	0
Aerosol Can Crusher	0	0	0	0	0	0.1	0	0	0	0
Final Product Conveying and Storage	13.77	13.77	13.77	0	0	13.8	0	0	0	0
Final Product Packaging & Loadout	13.77	13.77	13.77	0	0	0	0	0	0	0
Final Product Switchover	1.38	1.38	1.38	0	0	0	0	0	0	0
NG Combustion	0.12	0.5	0.5	0.04	6.56	0.36	5.51	8,083	0.1	0.1
Welding	0.4	0.4	0.4	0	0	0	0	0	0	0
Misc Lab instruments	0.28	0.28	0.28	0	0	0	0	0	0	0
<b>Total PTE of Entire Source</b>	<b>113.8</b>	<b>80.7</b>	<b>80.7</b>	<b>91.2</b>	<b>6.6</b>	<b>91.2</b>	<b>10.4</b>	<b>8,083.1</b>	<b>&lt;25</b>	<b>&lt;10</b>
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	250	250	100,000	NA	NA

negl. = negligible

\*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".

\*\*The 100,000 CO<sub>2</sub>e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

(a) FESOP Status

This existing source is not a Title V major stationary source, because the potential to emit PM10 and PM2.5 from the entire source will be limited to less than the Title V major source threshold levels. Therefore, this source is an area source under Section 112 of the Clean Air Act and is subject to the provisions of 326 IAC 2-8 (FESOP).

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), the source shall comply with the following:

- (1) PM10 from the raw material handling and storages, which include rail loadout system, truck loadout system and all tanks, exhausting to stack S-25 shall not exceed 3.97 lbs/hr.
- (2) PM2.5 from the raw material handling and storages, which include rail loadout system, truck loadout system and all tanks, exhausting to stack S-25 shall not exceed 3.97 lbs/hr.

Compliance with these limits, combined with the potential to emit PM10, and PM2.5 from all other emission units at this source, shall limit the source-wide total potential to emit of PM10, and PM2.5 to less than 100 tons per 12 consecutive month period, and shall render 326 IAC 2-7 (Part 70 Permits), not applicable.

Note: This source is able to comply with the above limits by using controls devices (See the Appendix A calculation.)

(b) PSD Minor Source

This existing source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit each pollutant is less than 250 tons per year, the potential to emit greenhouse gases (GHGs) is less than the PSD subject to regulation threshold of one hundred thousand (100,000) tons of CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>e) per year, and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

<b>Federal Rule Applicability Determination</b>
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New Source Performance Standards (NSPS)

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

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (a) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Halogenated Solvent Cleaning (40 CFR 63, Subpart T) (326 IAC 20-6-1) are not included in this permit because the degreasing operations do not use halogenated solvents.
- (b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Group IV Polymers and Resins, 40 CFR 63, Subpart JJJ (326 IAC 20), are not included in this permit because this source does not process or manufacture a thermoplastic product as defined by 40 CFR 63.1312 and the source is not a major source for HAPs.
- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Surface Coating of Plastic Parts and Products, 40 CFR 63, Subpart PPPP (326 IAC 20), are not included in this permit because this source is not a major source for HAPs and does not perform surface coating of plastic parts and products.

- (d) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Reinforced Plastic Composites Production, 40 CFR 63, Subpart WWWW (326 IAC 20), are not included in this permit because this source does not produce reinforced plastic composites and this source is not a major source of HAPs.
- (e) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Polyvinyl Chloride and Copolymers Production Area Sources, 40 CFR 63, Subpart DDDDDD (326 IAC 20), are not included in this permit because this source does not produce polyvinyl chloride and copolymers.
- (f) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

#### Compliance Assurance Monitoring (CAM)

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

<b>State Rule Applicability Determination</b>
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The following state rules are applicable to the source:

- (a) 326 IAC 2-8-4 (FESOP)  
FESOP applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))  
PSD applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.
- (c) 326 IAC 2-1.1-5 (Nonattainment New Source Review)  
Vanderburgh County has been re-designated as attainment or unclassifiable for all criteria pollutants, therefore, the requirements of 326 IAC 2-1.1-5 are not included in this permit.
- (d) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))  
The unlimited potential to emit of HAPs from the each unit is less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, the source is not subject to the requirements of 326 IAC 2-4.1.
- (e) 326 IAC 2-6 (Emission Reporting)  
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (f) 326 IAC 5-1 (Opacity Limitations)  
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
  - (1) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

- (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (g) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)  
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.
- (h) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)  
The source is not subject to the requirements of 326 IAC 6-5, because potential fugitive particulate emissions from this source is less than 25 tons per year.
- (i) 326 IAC 6.5-1-2 (Particulate Emission Limitations)  
Pursuant to 326 IAC 6.5-1-1, this source is located in Vanderburgh, which is one of the counties listed in this rule, but this source and their operations are not specific listed in 326 IAC 6.5, therefore, the requirements of 326 IAC 6.5 do not applied.

#### Raw Material Handling Operations

- (a) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
Particulate emissions from raw materials handling, bulk rail loading system, bulk truck loading system and storages shall not exceed the 25.96 pounds per hour each.

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

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

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

- (b) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)  
The unlimited VOC potential emissions from each unit is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 do not apply.

#### Extruding, Blending, Molding

- (a) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)  
The unlimited VOC potential emissions from each unit is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 do not apply.

#### Washer Operation

- (a) 326 IAC 8-3-2 (Cold Cleaner Operations)  
The one (1) part washer is subject to the requirements of 326 IAC 8-3-2 (Cold Cleaner Operations) since it was constructed after January 1, 1980.

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee 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.
- (b) 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)  
 The one (1) degreasing operation is not subject to the requirements of 326 IAC 8-3-5, because it is not equipped with a remote solvent reservoir.

Cooling Tower, Aerosol Crusher

- (a) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
 The potential to emit particulate matter from each unit is negligible or less than 0.551 pounds per hour, therefore, they are not subject to the requirements of 326 IAC 6-3-2.
- (b) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)  
 The unlimited VOC potential emissions from each unit is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 do not apply.

Final Products Handling Operation

- (a) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)  
 The unlimited VOC potential emissions from each product handling and storage is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 do not apply.

Natural Gas Combustion Units

- (a) 326 IAC 6-2-1 (Particulate Emission Limitations for Sources of Indirect Heating)  
 The natural gas-fired combustion units are not subject to 326 IAC 6-2-1, since they are not sources of indirect heating.
- (b) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)  
 The natural gas-fired combustion units are exempt from the requirements of 326 IAC 6-3, because, pursuant to 326 IAC 1-2-59, liquid and gaseous fuels and combustion air are not considered as part of the process weight.

<b>Compliance Determination, Monitoring and Testing Requirements</b>
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- (a) The monitoring requirements applicable to this source are as follows:

Control ID	Control Units	Emission Units	Dust Stack ID	Operating Parameters	Frequency
DC-25	DC-25	Rail and truck loading systems including T0105, T0106, T0107, T0108	25	Visible Emission	Once per day

**Note:** The alternative emission factors provided by the source have been reviewed by the Compliance and Enforcement Data Section and have been found to be acceptable, therefore no stack testing requirements for PM, PM10, PM2.5, or VOC have been included in the permit.

### Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on September 2, October 17, November 7, December 28, 2011 and February 6, 2012.

The operation of this source shall be subject to the conditions of the attached proposed New Source Construction and FESOP No. F163-30875-00104. The staff recommends to the Commissioner that this New Source Construction and FESOP be approved.

### IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Ms. Renee Traivaranon at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) (234-5615) or toll free at 1-800-451-6027 extension 4-5615.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.in.gov/idem](http://www.in.gov/idem)

**Appendix A: Emission Calculations  
Summary**

**Company Name:** DSM Engineering Plastics America  
**Source Address:** 2267 W. Mill Rd, Evansville, IN 47220  
**Permit Number:** F 163-30875-00104  
**Reviewer:** Renee Traivaranon

<b>Uncontrolled PTE Emissions Summary</b>											
	<b>Criteria Pollutants</b>							<b>CO2e</b>	<b>Hazardous Air Pollutants</b>		
	<b>PM</b>	<b>PM10</b>	<b>PM2.5</b>	<b>VOC</b>	<b>NOx</b>	<b>CO</b>	<b>SO2</b>	<b>CO2e</b>	<b>Caprolactam</b>	<b>Styrene</b>	<b>Total HAPs</b>
<b>Emissions Process/Units</b>	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)
Raw Material Loading, Unloading & Storage (S-25)	120.95	42.87	42.87								
Blenders	20.97	10.49	10.49								
Extruders	14.25	14.25	14.25	75.73	0.01	4.9			9.02	0.39	9.41
Molding Machines	0.02	0.02	0.02	0.026	0.00001	0.006			0.010	0.0004	0.011
Final Product Convey & Storage	13.77	13.77	13.77	13.77							
Final Product Packaging & Loadout	13.77	13.77	13.77								
Final Product Switchover	1.38	1.38	1.38								
NG Combustion	0.12	0.50	0.50	0.36	6.56	5.51	0.04	8,083.14			1.24E-01
Glass Bead Blaster	11.41	7.98	7.98								
Maint Parts Washer				1.22							
Misc. Lab instruments and testing	0.28	0.28	0.28								
Aerosol Can Crusher				0.10							
Welding	0.41	0.41	0.41								
East & West Cooling Towers	0.5	0.5	0.5								
	<b>197.81</b>	<b>106.19</b>	<b>106.19</b>	<b>91.20</b>	<b>6.57</b>	<b>10.41</b>	<b>0.04</b>	<b>8,083.14</b>	<b>9.03</b>	<b>0.39</b>	<b>9.55</b>

<b>PTE Emissions Summary after Issuance</b>											
	<b>Criteria Pollutants</b>							<b>CO2e</b>	<b>Hazardous Air Pollutants</b>		
	<b>PM</b>	<b>PM10</b>	<b>PM2.5</b>	<b>VOC</b>	<b>NOx</b>	<b>CO</b>	<b>SO2</b>	<b>CO2e</b>	<b>Caprolactam</b>	<b>Styrene</b>	<b>Total HAPs</b>
<b>Emissions Process/Units</b>	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)
Raw Material Loading, Unloading & Storage (S-25)	36.92	17.40	17.40								
Blenders	20.97	10.49	10.49								
Extruders	14.25	14.25	14.25	75.73	0.006	4.9			9.02	0.39	9.41
Molding Machines	0.02	0.02	0.02	0.026	0.00001	0.006			0.010	0.000	0.011
Final Product Convey & Storage	13.77	13.77	13.77	13.8							
Final Product Packaging & Loadout	13.77	13.77	13.77								
Final Product Switchover	1.38	1.38	1.38								
NG Combustion	0.12	0.50	0.50	0.36	6.56	5.51	0.04	8,083.14			1.24E-01
Glass Bead Blaster	11.41	7.98	7.98								
Maint Parts Washer				1.2							
Misc. Lab instruments and testing	0.28	0.28	0.28								
Aerosol Can Crusher	0.00			0.10							
Welding	0.41	0.41	0.41								
East & West Cooling Towers	0.5	0.5	0.5								
	<b>113.8</b>	<b>80.7</b>	<b>80.7</b>	<b>91.2</b>	<b>6.6</b>	<b>10.4</b>	<b>0.04</b>	<b>8083.1</b>	<b>9.0</b>	<b>0.4</b>	<b>9.5</b>

Note: Assumption PM10=PM2.5  
Blank indicates no emissions or negligible emissions

Appendix A: Emission Calculations

Raw Material Loading, Unloading and Storages

Company Name: DSM Engineering Plastics America  
 Source Address: 2267 W. Mill Rd, Evansville, IN 47220  
 Permit Number: F 163-30875-00104  
 Reviewer: Renee Traivaranon

Emission Unit	PTE Throughput (ton/hr)	PTE Throughput (ton/yr)	PM EF (lb/ton)	PM10/PM2.5 EF (lb/ton)	Uncontrolled PM (lb/hr)	Uncontrolled PM (ton/yr)	Uncontrolled PM10/PM2.5 (lb/hr)	Uncontrolled PM10/PM2.5 (ton/yr)	Control Efficiency % PM/PM10/PM2.5	Controlled PM (ton/yr)	Controlled PM10/PM2.5 (ton/yr)
Raw Materials Handling	15.72										
Powder Loading & Conveying	4.27	37,388	0.61	0.61	2.60	11.40	2.60	11.40	75.00%	2.85	2.85
Powder Storage <sup>(1)</sup>	4.27	37,388	0.61	0.61	2.60	11.40	2.60	11.40	75.00%	2.85	2.85
Fiberglass Loading & Conveying	6.37	55,771	3.0	0.2	19.10	83.66	1.27	5.58	75.00%	20.91	1.39
Fiberglass Storage <sup>(2)</sup>	6.37	55,771	0.2	0.2	1.27	5.58	1.27	5.58	75.00%	1.39	1.39
Pellet Loading & Conveying	5.09	44,548	0.2	0.2	1.02	4.45	1.02	4.45	0.00%	4.45	4.45
Pellet Storage <sup>(2)</sup>	5.09	44,548	0.2	0.2	1.02	4.45	1.02	4.45	0.00%	4.45	4.45
<b>Totals (tons/year)</b>	<b>15.72</b>				<b>27.61</b>	<b>120.95</b>		<b>42.87</b>		<b>36.92</b>	<b>17.40</b>
									Limited (lb/hr)	8.43	3.97

Note:

<sup>(1)</sup> Powder and fiberglass are arrived in bags or sacks and stored there until feeding into hoppers where they can be fed to the blenders

<sup>(2)</sup> Pellets (nylons) are stored in five silos, T-0105, T-0106, T-0107, T-0108, and R1

Methodology:

The maximum potential throughput of raw materials would be equal to the Extrusion maximum capacity, since it is assumed that the the raw material handles all the extrusion amount. Source determined that powdery raw materials would create the worst-case PM-generation for PTE purposes. So, the maximum powder percentage in a batch was determined, then the fiberglass percentage, and then pellet percentage (by weight). Since PM/PM10 are the pollutants of concern for this industry, that pollutant was the basis for choosing the highest powder %, instead of choosing highest pellet % as worst case, which would emit more VOCs.

The powder emission factor for PM/PM10 is from AP42, Ch. 11.17-4, Lime, Closed Truck Loading. The micron size and nature of lime is worst case in comparison to any powder raw materials in a DSM batch. Fiberglass & Pellet emission factor from AP-42, Ch. 11.13-2, Fiberglass. We will assume PM10 EF as worst case for PM EF. As Pellet EFs can be no worse than Fiberglass, we will use the fiberglass storage factors for Pellet conveying and storage emissions also.

Potential Emissions (lb/hr) = Throughput (ton/hr) \* Emission factor (lb/ton)  
 Potential Emissions (ton/yr) = Throughput (ton/hr) \* Emission factor (lb/ton) \* 8760 (hours/year) / 2000 (lbs/ton)  
 Controlled Potential Emissions (ton/yr) = Throughput (ton/hr) \* Emission factor (lb/ton) \* 8760 (hours/year) / 2000 (lbs/ton) \* (1-Control Efficiency)

Note: The source provides 98% control efficiency for the above units. However, IDEM uses less than conservative 75% and the source is not required to provide testing or verification for this 75% efficiency.

Appendix A: Emission Calculations

Extrusion

Company Name: DSM Engineering Plastics America

Source Address: 2267 W. Mill Rd, Evansville, IN 47220

Permit Number: F 163-30875-00104

Reviewer: Renee Traivaranon

Emission Unit	Maximum Throughput (lb/hr)	Maximum Throughput (ton/hr)	Uncontrolled (criteria pollutants)													Uncontrolled Hazardous Air Pollutants (HAPs)							
			Maximum Throughput (ton/yr)	EF PM/PM10 (lb/ton)	PTE PM/PM10 (lb/hr)	PTE PM/PM10 (ton/yr)	EF CO (lb/ton)	PTE CO (lb/hr)	PTE CO (ton/yr)	EF NOx (lb/ton)	PTE NOx (lb/hr)	PTE NOx (ton/yr)	EF VOC (lb/ton)	PTE VOC (lb/hr)	PTE VOC (ton/yr)	EF Caprolactam (lb/ton)	PTE Caprolactam (lb/hr)	PTE Caprolactam (ton/yr)	EF Styrene (lb/ton)	PTE Styrene (lb/hr)	PTE Styrene (ton/yr)	Total HAPs (ton/yr)	
Extrusion																							
Lab Extruder 31	76	0.04	333	0.207	0.0079	0.03	0.071	0.00	0.01	8.00E-05	3.04E-06	1.3E-05	1.1	0.04	0.18	0.131	0.00	0.02	5.7E-03	2.2E-04	0.00	0.02	
Extruder 39	300	0.15	1,314	0.207	0.03	0.14	0.071	0.01	0.05	8.00E-05	1.20E-05	5.3E-05	1.1	0.17	0.72	0.131	0.02	0.09	5.7E-03	8.6E-04	0.00	0.09	
Extruder 40	300	0.15	1,314	0.207	0.03	0.14	0.071	0.01	0.05	8.00E-05	1.20E-05	5.3E-05	1.1	0.17	0.72	0.131	0.02	0.09	5.7E-03	8.6E-04	0.00	0.09	
Extruder 36	3000	1.50	13,140	0.207	0.31	1.36	0.071	0.11	0.47	8.00E-05	1.20E-04	5.3E-04	1.1	1.65	7.23	0.131	0.20	0.86	5.7E-03	8.6E-03	0.04	0.90	
Extruder 35	5500	2.75	24,090	0.207	0.57	2.49	0.071	0.20	0.86	8.00E-05	2.20E-04	9.6E-04	1.1	3.03	13.25	0.131	0.36	1.58	5.7E-03	1.6E-02	0.07	1.65	
Extruder 33	1000	0.50	4,380	0.207	0.10	0.45	0.071	0.04	0.16	8.00E-05	4.00E-05	1.8E-04	1.1	0.55	2.41	0.131	0.07	0.29	5.7E-03	2.9E-03	0.01	0.30	
Extruder 34	4000	2.00	17,520	0.207	0.41	1.81	0.071	0.14	0.62	8.00E-05	1.60E-04	7.0E-04	1.1	2.20	9.64	0.131	0.26	1.15	5.7E-03	1.1E-02	0.05	1.20	
Extruder 95	3000	1.50	13,140	0.207	0.31	1.36	0.071	0.11	0.47	8.00E-05	1.20E-04	5.3E-04	1.1	1.65	7.23	0.131	0.20	0.86	5.7E-03	8.6E-03	0.04	0.90	
Extruder 6	6000	3.00	26,280	0.207	0.62	2.72	0.071	0.21	0.93	8.00E-05	2.40E-04	1.1E-03	1.1	3.30	14.45	0.131	0.39	1.72	5.7E-03	1.7E-02	0.07	1.80	
Extruder 7	8260	4.13	36,179	0.207	0.85	3.74	0.071	0.29	1.28	8.00E-05	3.30E-04	1.4E-03	1.1	4.54	19.90	0.131	0.54	2.37	5.7E-03	2.4E-02	0.10	2.47	
<b>Totals</b>		<b>15.72</b>				<b>14.25</b>			<b>4.89</b>			<b>5.5E-03</b>			<b>75.73</b>		<b>9.02</b>			<b>0.39</b>	<b>9.41</b>		

Methodology:

\* Emission factors taken from the following technical paper, "Development of Emission Factors for Polyamide Processing", *Journal of the Air and Waste Management Association*, Krick, et al., Volume 51, July 2001, Pages 1001-1008, Table 3. The worst case compound was used and the test runs were averaged as per guidance. Test Run Nos. 7A & 7B were not used because DSM doesn't use Decolorane as a fire retardant.  
 \*\* PM10 & VOC Emissions factor taken from the following fact sheet, "Plastic Production and Products Manufacturing Emission Calculation Fact Sheet #9847 (Rev. 11/2005), Michigan DSEQ (now MDNRE), Environmental Science and Services Division, November 2005  
 Extruder 40 is not in operation at this time, but it is still at the source.  
 Extruder 7 has been approved for construction in 2012.

**Uncontrolled Potential Emissions (lb/hr) = Throughput (ton/hr) \* Emission factor (lb/ton)**  
**Uncontrolled Potential Emissions (ton/yr) = Throughput (ton/hr) \* Emission factor (lb/ton) \* 8760 (hours/year) / 2000 (lbs/ton)**

## Blending and Mixing

Company Name: DSM Engineering Plastics America

Source Address: 2267 W. Mill Rd, Evansville, IN 47220

Permit Number: F 163-30875-00104

Reviewer: Renee Traivaranon

Emission Unit	PTE Throughput (lb/hr)	PTE Throughput (ton/hr)	PTE Throughput (ton/yr)	UnControl PM EF (lb/ton)	UnControl PM10/PM2.5 EF (lb/ton)	UnControl PM (lb/hr)	UnControl PM (ton/yr)	UnControl PM10/PM2.5 (lb/hr)	UnControl PM10/PM2.5 (ton/yr)
Blender 036	1700	0.85	7446	0.6	0.3	0.51	2.23	0.26	1.12
Blender 035	1500	0.75	6570	0.6	0.3	0.45	1.97	0.23	0.99
Blender 33	400	0.20	1752	0.6	0.3	0.12	0.53	0.06	0.26
Blender 034	1100	0.55	4818	0.6	0.3	0.33	1.45	0.17	0.72
Blender 095	1500	0.75	6570	0.6	0.3	0.45	1.97	0.23	0.99
Blender 06	1500	0.75	6570	0.6	0.3	0.45	1.97	0.23	0.99
Blender 07	8260	4.13	36178.8	0.6	0.3	2.48	10.85	1.24	5.43
Totals		7.98					20.97		10.49

## Methodology:

PM emission factor from AP-42, Ch. 11.13-2, Fiberglass Mixing & Weighing. Since the highest constituent of the batch can be a worst case of fiberglass of the final product, this is the best case representative factor.

The PM10 factor for Fiberglass Mixing & Blending - AIRS Facility Subsystem Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants, March 1990, EPA 450/4-90-003.

Uncontrolled Potential Emissions (lb/hr) = Throughput (ton/hr)\* Emission factor (lb/ton)

Uncontrolled Potential Emissions (ton/yr) = Throughput (ton/hr)\* Emission factor (lb/ton) \* 8760 (hours/year) / 2000 (lbs/ton)

Appendix A: Emission Calculations

R & D Molding of Polyamide/Nylon Compounds PTE

Company Name: DSM Engineering Plastics America  
 Source Address: 2267 W. Mill Rd, Evansville, IN 47220  
 Permit Number: F 163-30875-00104  
 Reviewer: Renee Traivaranon

Emission Unit	Maximum Throughput (ton/hr)	Maximum Throughput (ton/yr)	PM/PM10 EF (lb/ton)	Uncontrolled PM/PM10 (lb/hr)	Uncontrolled PM/PM10 (ton/yr)	CO EF (lb/ton)	CO (lb/hr)	NOx EF (lb/ton)	NOx (lb/hr)	NOx (ton/yr)	VOC EF (lb/ton)	VOC (lb/hr)	VOC (ton/yr)	Hazardous Air Pollutants (HAPs)							
														Caprolactam EF (lb/ton)	Caprolactam (lb/hr)	Caprolactam (ton/yr)	Styrene EF (lb/ton)	Styrene (lb/hr)	Styrene (ton/yr)	Total HAPs (ton/yr)	
R & D Molding of Polyamide/Nylon Compounds PTE																					
MM-08	7.20E-03	63.1	0.207	1.49E-03	6.53E-03	0.071	5.11E-04	8.00E-05	5.76E-07	2.5E-06	0.329	0.00	1.04E-02	0.131	9.43E-04	4.13E-03	5.7E-03	4.1E-05	1.80E-04	4.31E-03	
MM-10	2.40E-03	21.0	0.207	4.97E-04	2.18E-03	0.071	1.70E-04	8.00E-05	1.92E-07	8.4E-07	0.329	0.00	3.46E-03	0.131	3.14E-04	1.38E-03	5.7E-03	1.4E-05	5.99E-05	1.44E-03	
MM-12	2.40E-03	21.0	0.207	4.97E-04	2.18E-03	0.071	1.70E-04	8.00E-05	1.92E-07	8.4E-07	0.329	0.00	3.46E-03	0.131	3.14E-04	1.38E-03	5.7E-03	1.4E-05	5.99E-05	1.44E-03	
MM-13	6.00E-03	52.6	0.207	1.24E-03	5.44E-03	0.071	4.26E-04	8.00E-05	4.80E-07	2.1E-06	0.329	0.00	8.65E-03	0.131	7.86E-04	3.44E-03	5.7E-03	3.4E-05	1.50E-04	3.59E-03	
<b>Totals</b>	<b>1.80E-02</b>				<b>1.63E-02</b>					<b>6.3E-06</b>			<b>2.59E-02</b>			<b>1.03E-02</b>			<b>4.49E-04</b>	<b>1.08E-02</b>	

Methodology:

\* Emission factors taken from the following technical paper, "Development of Emission Factors for Polyamide Processing", *Journal of the Air and Waste Management Association*, *Krick, et al.*, Volume 51, July 2001, Pages 1001-1008, Table 3. The worst case compound was used and the test runs were averaged as per guidance. Test Run Nos. 7A & 7B were not used because DSM doesn't use Dechlorane as a fire retardant.  
 \*\* PM10 & VOC Emissions factor taken from the following fact sheet, "Plastic Production and Products Manufacturing Emission Calculation Fact Sheet #9847 (Rev. 11/2005), Michigan DEQ (now MDNR), Environmental Science and Services Division, November 2005

Uncontrolled Potential Emissions (lb/hr) = Throughput (ton/hr) \* Emission factor (lb/ton)  
 Uncontrolled Potential Emissions (ton/yr) = Throughput (ton/hr) \* Emission factor (lb/ton) \* 8760 (hours/year) / 2000 (lbs/ton)

Appendix A: Emission Calculations

Glass Bead Blasting PTE

Company Name: DSM Engineering Plastics America  
 Source Address: 2267 W. Mill Rd, Evansville, IN 47220  
 Permit Number: F 163-30875-00104  
 Reviewer: Renee Traivaranon

Table 1 - Emission Factors for Abrasives

Abrasive	Emission Factor	
	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	

Table 2 - Density of Abrasives (lb/ft3)

Abrasive	Density (lb/ft3)
Al oxides	160
Sand	99
Steel	487

Table 3 - Media Flow Rate (FR1) Through Nozzle (lb/hr)

Flow rate of Sand Through a Blasting Nozzle as a Function of Nozzle pressure and Internal Diameter

Internal diameter, in	Nozzle Pressure (psig)							
	30	40	50	60	70	80	90	100
1/8	28	35	42	49	55	63	70	77
3/16	65	80	94	107	122	135	149	165
1/4	109	138	168	195	221	255	280	309
5/16	205	247	292	354	377	420	462	507
3/8	285	355	417	477	540	600	657	720
7/16	385	472	560	645	755	820	905	940
1/2	503	615	725	835	945	1050	1160	1265
5/8	820	990	1170	1336	1510	1680	1850	2030
3/4	1140	1420	1670	1915	2160	2400	2630	2880
1	2030	2460	2900	3340	3780	4200	4640	5060

Calculations

Adjusting Flow Rates for Different Abrasives and Nozzle Diameters

Flow Rate (FR) = Abrasive flow rate (lb/hr) with internal nozzle diameter (ID)  
 FR1 = Sand flow rate (lb/hr) with internal nozzle diameter (ID1) From Table 3 =  
 D = Density of abrasive (lb/ft3) From Table 2 =  
 D1 = Density of sand (lb/ft3) =  
 ID = Actual nozzle internal diameter (in) =  
 ID1 = Nozzle internal diameter (in) from Table 3 =

187.5
99
99
0.15625
0.1875

Flow Rate (FR) (lb/hr) = 130.208 per nozzle

Uncontrolled Emissions (E, lb/hr)

EF = emission factor (lb PM/ lb abrasive) From Table 1 =  
 FR = Flow Rate (lb/hr) =  
 w = fraction of time of wet blasting =  
 N = number of nozzles =

0.010
130.208
0
2

		PM10
Uncontrolled PM Emissions =	2.60	1.82
	11.41	7.98
Controlled PM Emissions =	0.052	0.036
	0.228	0.160

METHODOLOGY

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)  
 Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs  
 Flow Rate (FR) (lb/hr) = FR1 x (ID/ID1)2 x (D/D1)  
 E = EF x FR x (1-w/200) x N  
 w should be entered in as a whole number (if w is 50%, enter 50)

Appendix A: Emission Calculations

Part Washer

Company Name: DSM Engineering Plastics America

Source Address: 2267 W. Mill Rd, Evansville, IN 47220

Permit Number: F 163-30875-00104

Reviewer: Renee Traivaranon

Unit ID	Unit Description	Product Manufacturer	Product Name	Number of Cold Cleaner Degreaser Units	Net Product Usage per Degreaser*	Total Product Usage	Product VOC	Average VOC Emissions	VOC Emissions	VOC Emissions
					gal/day	gal/day	lb/gal	(lb/hr)	(lb/day)	(tpy)
CC-1	Oscillating Cold Solvent Washer	Safety Kleen Premium Solvent	Naphtha Petroleum	1	1.0	1	6.66	0.28	6.66	1.22
<b>Totals:</b>				1		1		0.28	6.66	1.22

Methodology:

Potential to Emit VOC (tons/yr) =[ VOC density (lb/gal) \* Material Usage (gal/day)] \* 365days/yr \* 1 ton/2000 lbs

Potential to Emit VOC (lb/day) =[ VOC density (lb/gal) \* Material Usage (gal/day)]

**Appendix A: Emission Calculations  
Cooling Tower**

**Company Name:** DSM Engineering Plastics America  
**Source Address:** 2267 W. Mill Rd, Evansville, IN 47220  
**Permit Number:** F 163-30875-00104  
**Reviewer:** Renee Traivaranon

**Process Parameters:**

Circulation Flow Rate: 108,000 gal/hr (1000 gpm East Cooling Tower and 800 gpm West Cooling Tower)  
<sup>1</sup>Total Drift: 0.005% of the circulating flow  
<sup>1</sup>Maximum Total Dissolved Solids: 2,400 ppm\* \*Average Total Dissolved Solids from AP-42  
Density: 8.345 lbs/gal

Note 1: Calculation based on AP-42 Chapter 13.4. Assume that non VOC biocide utilized, therefore no VOCs included.

**Potential to Emit PM/PM10/PM2.5:**

Assume all the dissolved solids become PM10 emissions and assume PM emissions are equal to PM10 emissions.

PTE of PM/PM10/PM2.5 (lbs/hr) =  $108,000 \text{ gal/hr} \times 0.005\% \times 8.345 \text{ lbs/gal} \times 2,400 \text{ ppm} \times 1/1,000,000 \text{ ppm} = 0.11 \text{ lbs/hr}$   
PTE of PM/PM10/PM2.5 (tons/yr) =  $0.11 \text{ lbs/hr} \times 8760 \text{ hr/yr} \times 1 \text{ ton}/2000 \text{ lbs} = 0.5 \text{ tons/yr}$

Note: Cooling Tower will not use VOC or HAP containing chemicals.

**Aerosol Can Crusher**

**Company Name:** DSM Engineering Plastics America

**Source Address:** 2267 W. Mill Rd, Evansville, IN 47220

**Permit Number:** F 163-30875-00104

**Reviewer:** Renee Traivaranon

Unit ID	Unit Description	Throughput Cans/year	Can VOC Content* lb/can	VOC Emissions (lb/year)	VOC Emissions (tpy)
ACC-1	Aerosol Can Crusher	800.0	0.25	200.00	0.10
<b>Totals:</b>				200.00	0.10

**Methodology:**

\*Can VOC content conservatively estimated to be 4 oz/can; actual VOC content expected to be less, as cans have been emptied of solvent at the time of disposal

Potential to Emit VOC (tons/yr) =[ VOC content (lb/can) \* Usages (cans/year)] \* 1 ton/2000 lbs

**Conveying and Storage of Final Product PTE**

**Company Name:** DSM Engineering Plastics America

**Source Address:** 2267 W. Mill Rd, Evansville, IN 47220

**Permit Number:** F 163-30875-00104

**Reviewer:** Renee Traivaranon

Emission Unit	PTE Throughput (ton/hr)	PTE Throughput (ton/yr)	Uncontrolled PM/PM10/PM2.5 EF (lb/ton)	Uncontrolled PM/PM10/PM2.5 (lb/hr)	Uncontrolled PM/PM10/PM2.5 (ton/yr)	VOC EF (lb/ton)	VOC (ton/yr)
All Products	15.72	137,707	0.2	3.14	13.77	0.2	13.77

Note: The above throughput is directed to 10 tanks; 0503, 0504, 0505, 0506, 0507, 0509, 0510, 0111, 0112, R1

**Methodology:**

As per the Extrusion PTE, the maximum potential throughput of raw materials would be equal to the Extrusion maximum capacity, which equals 15.72 ton/hr.

Final Product PM emission factor from AP-42, Ch. 11.13-2, Fiberglass Storage. Since up to 40.5% of the final product can be fiberglass which is going to create more particulate generation than finished nylon pellets, we will assume the fiberglass storage PM EF as worst case for PM & PM10 conveying and storage.

The VOC Emission Factor is from, "EPA. 1995. Section 6.6.2, Table 6.6.2-1, Plastics: Poly(ethylene terephthalate). In: Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, 5th Ed., AP-42. U.S. EPA, OAQPS. Research Triangle Park, NC.

Potential Emissions (lb/hr) = Throughput (ton/hr) \* Emission factor (lb/ton)

Potential Emissions (ton/yr) = Throughput (ton/hr) \* Emission factor (lb/ton) \* 8760 (hours/year) / 2000 (lbs/ton)

**Packaging and Loadout of Final Product PTE**

**Company Name:** DSM Engineering Plastics America

**Source Address:** 2267 W. Mill Rd, Evansville, IN 47220

**Permit Number:** F 163-30875-00104

**Reviewer:** Renee Traivaranon

Emission Unit	PTE Throughput (ton/hr)	PTE Throughput (ton/yr)	Uncontrolled PM/PM10/PM2.5 EF (lb/ton)	Uncontrolled PM/PM10/PM2.5 (lb/hr)	Uncontrolled PM/PM10/PM2.5 (ton/yr)
All Products	15.72	137,707	0.2	3.14	13.77

**Methodology:**

*As per the Extrusion PTE, the maximum potential throughput of raw materials would be equal to the Extrusion maximum capacity, which equals 15.72 ton/hr.*

Final Product PM emission factor from AP-42, Ch. 11.13-2, Fiberglass Storage. Since up to 40.5% of the final product can be fiberglass which is going to create more particulate generation than finished nylon pellets, we will assume the fiberglass storage PM EF  
The VOC Emission Factor used in final product conveying and storage gives a worst case emission of all VOCs after extrusion and no additional accounting of VOCs will be included in packaging & loadout.

Potential Emissions (lb/hr) = Throughput (ton/hr)\* Emission factor (lb/ton)

Potential Emissions (ton/yr) = Throughput (ton/hr)\* Emission factor (lb/ton) \* 8760 (hours/year) / 2000 (lbs/ton)

**Appendix A: Emission Calculations**

**Final Product Switchover PTE for Repackaging**

**Company Name:** DSM Engineering Plastics America

**Source Address:** 2267 W. Mill Rd, Evansville, IN 47220

**Permit Number:** F 163-30875-00104

**Reviewer:** Renee Traivaranon

<b>Emission Unit</b>	<b>PTE Throughput (ton/hr)</b>	<b>PTE Throughput (ton/yr)</b>	<b>Uncontrolled PM/PM10/PM2.5 EF (lb/ton)</b>	<b>Uncontrolled PM/PM10/PM2.5 (lb/hr)</b>	<b>Uncontrolled PM/PM10/PM2.5 (ton/yr)</b>
All Products	1.57	13,753	0.2	0.31	1.38

**Methodology:**

As per the Extrusion PTE, the maximum potential throughput equals 15.72 ton/hr. However, only 10% of all final product gets repackaged. Final Product PM emission factor from AP-42, Ch. 11.13-2, Fiberglass Storage. Since up to 40.5% of the final product can be fiberglass which is going to create more particulate generation than finished nylon pellets, we will assume the fiberglass storage PM EF as worst case for PM & PM10 conveying and storage.

Potential Emissions (lb/hr) = Throughput (ton/hr) \* Emission factor (lb/ton)

Potential Emissions (ton/yr) = Throughput (ton/hr) \* Emission factor (lb/ton) \* 8760 (hours/year) / 2000 (lbs/ton)

The VOC Emission Factor used in final product conveying and storage gives a worst case emission of all VOCs after extrusion and no additional accounting of VOCs will be included in packaging & loadout.

QA/QC Testing, Burn Off Ovens & Booth

Company Name: DSM Engineering Plastics America

Source Address: 2267 W. Mill Rd, Evansville, IN 47220

Permit Number: F 163-30875-00104

Reviewer: Renee Traivaranon

Unit ID	Max Throughput Parts/yr	Max Throughput lb/yr	Max Loss %	PM/PM10/PM2.5 * lb/yr	PM/PM10/PM2.5 (tpy)
Mold Shop Tray Dryers		54,530	0.20%	109.06	0.05453
UL Testing	5070	150	25.00%	37.5	0.01875
Ash Testing		173	65.00%	112.45	0.056225
Moisture Analysis		544	0.20%	1.088	0.000544
Beranger Burn Off Oven	120	360	65.00%	234	0.117
Booth (Maintenance)	72	288	25.00%	72	0.036
<b>Totals:</b>				566.10	0.28

**Methodology:**

\*Emissions computed on the basis of mass balance of material lost; losses conservatively assumed to be entirely particulate matter emissions.

Potential Emissions (lb/yr) = Throughput (lb/yr)\* matterails loss (%)

Appendix A: Emission Calculations

Maintenance Welding

Company Name: DSM Engineering Plastics America  
 Source Address: 2267 W. Mill Rd, Evansville, IN 47220  
 Permit Number: F 163-30875-00104  
 Reviewer: Renee Traivaranon

Date: October 14, 2011

PROCESS	# of Stations	Max. Electrode Consumption per Station (lb/hr)		EMISSION FACTORS (lb pollutant/lb electrode)					EMISSIONS (lb/hr)					
				PM/PM10	Mn	Ni	Co	Cr	PM/PM10	Mn	Ni	Co	Cr	HAPs
<b>WELDING</b>														
Submerged Arc	0	0.00		0.036	0.011	0	0	0	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<b>Metal Inert Gas (MIG)</b>														
Carbon Steel E70S	2	1.70		0.0052	0.000318	0.000001	0.000001	0.000001	0.01768	0.00108	0.00000	0.00000	0.00000	0.00109
Stick (E6011)	2	1.00		0.0384	0.000998	0.000005	0.000001	0.000005	0.07680	0.00200	0.00001	0.00000	0.00001	0.00202
Tungsten Inert Gas (TIG) Carbon Steel	0	0.00		0.0055	0.0005	0	0	0	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Oxyacetylene (Carbon Steel)	0	0.00		0.0055	0.0005	0	0	0	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	# of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (inches/min)	(lb pollutant/1,000 inches cut, 1" thickness)										
<b>FLAME CUTTING</b>														
Oxyacetylene	0	0	0	0.1622	0.0005	0.0001	0	0.0003	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Oxymethane	0	0	0	0.0815	0.0002	0	0	0.0002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Plasma**	0	0	0	0.0039	0	0	0	0	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<b>EMISSION TOTALS</b>									<b>0.09448</b>	<b>0.00308</b>	<b>0.00001</b>	<b>0.00001</b>	<b>0.00001</b>	<b>0.00311</b>

Potential To Emit (PTE)	PM/PM10 (tpy)	Mn (tpy)	Ni (tpy)	Co (tpy)	Cr (tpy)	HAPs (tpy)
	0.414	0.013	0.000	0.000	0.000	0.014

METHODOLOGY

Emission factors are default values for carbon steel unless a specific electrode type is noted in the Process column, which are taken from AP-42, Table 12.19.1 & 2  
 Emission Factor for plasma cutting from American Welding Society. Trials reported for wet cutting of 8mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted).  
 Therefore, the emission factor for plasma cutting is for 8 mm thick rather than 1 inch, and the maximum metal thickness is not used in calculating the emissions.  
 Using AWS average values: (0.25 g/min)(3.6 m/min) x (0.0022 lb/g)/(39.37 in/m) x (1,000 in.) = 0.00039 lb/1,000 in. cut, 8 mm thick  
 Plasma Cutting Emissions, lb/hr: (# of stations)(max. cutting rate, in./min)(60 min/hr)(emission factor, lb, pollutant / 1,000 in. cut, 8 mm thick)  
 Flame Cutting Emissions, lb/hr: (# of stations)(max. cutting rate, in./min)(60 min/hr)(emission factor, lb, pollutant / 1,000 in. cut, 1" thick)  
 Welding Emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb, pollutant/lb of electrode used)  
 Emissions, ton/yr = emissions, lb/hr x 8760 hr/yr x 1 ton/2000 lb



**Appendix A: Emissions Calculations  
Natural Gas Combustion Only**

**Company Name: DSM Engineering Plastics America  
Address City IN Zip: 2267 W. Mill Rd, Evansville, IN 47220  
Permit Number: F 163-30875-00104  
Reviewer: Renee Traivaranon**

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
15.3	1000	133.9

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
	120,000	2.3	2.2
Potential Emission in tons/yr	8,034	0.2	0.1
Summed Potential Emissions in tons/yr	8,035		
CO2e Total in tons/yr	8,083		

**Methodology**

The N2O Emission Factor for uncontrolled is 2.2.

Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.

Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

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

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
**Governor**

*Thomas W. Easterly*  
**Commissioner**

100 North Senate Avenue  
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Toll Free (800) 451-6027  
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## SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: R. Keith Sutton  
DSM Engineering Plastics  
2267 W Mill Rd  
Evansville, IN 47220

DATE: April 25, 2012

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

SUBJECT: Final Decision  
FESOP  
163-30875-00104

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:  
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at [jbrush@idem.IN.gov](mailto:jbrush@idem.IN.gov).

Final Applicant Cover letter.dot 11/30/07



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
**Governor**

*Thomas W. Easterly*  
**Commissioner**

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[www.idem.IN.gov](http://www.idem.IN.gov)

April 25, 2012

TO: Evansville Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

**Applicant Name: DSM Engineering Plastics**  
**Permit Number: 163-30875-00104**

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures  
Final Library.dot 11/30/07

# Mail Code 61-53

IDEM Staff	CDENNY 4/25/2012 DSM Engineering Plastics 163-30875-00104 (final)		Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		R. Keith Sutton DSM Engineering Plastics 2267 W Mill Rd Evansville IN 47220 (Source CAATS)										
2		Debra Dykema VP Operations DSM Engineering Plastics 2267 W Mill Rd Evansville IN 47220 (RO CAATS)										
3		Evansville City Council and Mayors Office 1NW MLK Blvd, Rm 302 Evansville IN 47708 (Local Official)										
4		Vanderburgh County Commissioners 1 NW MLK Blvd, Rm 305 Evansville IN 47708 (Local Official)										
5		Evansville Vanderburg Public Library 200 SE Martin Luther King Jr. Blvd Evansville IN 47708-1694 (Library)										
6		Mr. Wendell Hibdon Plumbers & Steam Fitters Union, Local 136 2300 St. Joe Industrial Park Dr Evansville IN 47720 (Affected Party)										
7		Mr. Don Mottley Save Our Rivers 6222 Yankeetown Hwy Boonville IN 47601 (Affected Party)										
8		Vanderburgh County Health Dept. 420 Milberry Street Evansville IN 47713-1888 (Health Department)										
9		Kim Sherman 3355 Woodview Drive Newburgh IN 47630 (Affected Party)										
10		Mr. Mark Wilson Evansville Courier & Press P.O. Box 268 Evansville IN 47702-0268 (Affected Party)										
11		Mr. John Blair 800 Adams Ave Evansville IN 47713 (Affected Party)										
12		Mr. Greg Towler Environmental Resources Management (ERM) 11350 N. Meridian St., Suite 320 Carmel IN 46032 (Consultant)										
13		Evansville EPA 100 E. Walnut St. Suite 100, Newsome Center Evansville IN 47713 (Local Official)										
14		David Boggs 216 Western Hills Dr Mt Vernon IN 47620 (Affected Party)										
15												

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