Indiana Department of Environmental Management
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

NOTICE OF 30-DAY PERIOD
FOR PUBLIC COMMENT

Preliminary Findings Regarding the Renewal of a
Federally Enforceable State Operating Permit (FESOP)

for DSM Engineering Plastics in Vanderburgh County

FESOP Renewal No.: F163-37397-00104

The Indiana Department of Environmental Management (IDEM) has received an application from DSM Engineering Plastics located at 2267 W. Mill Road, Evansville, Indiana for a renewal of its FESOP issued on April 25, 2012. If approved by IDEM's Office of Air Quality (OAQ), this proposed renewal would allow DSM Engineering Plastics to continue to operate its existing source.

This draft FESOP renewal does not contain any new equipment that would emit air pollutants; however, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (e.g., changes that add or modify synthetic minor emission limits). This notice fulfills the public notice procedures to which those conditions are subject. IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow for these changes.

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

Evansville Vanderburgh Public Library
200 SE Martin Luther King Blvd.
Evansville, IN 47713

and

IDEM Southwest Regional Office
1120 N. Vincennes Avenue
P.O. Box 128
Petersburg, IN 47567-0128

A copy of the preliminary findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/.

How can you participate in this process?

The date that this notice is published in a newspaper marks the beginning of a 30-day public comment period. If the 30th day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the **air pollution impact** of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an opportunity to submit written comments and make verbal comments. At a meeting,

you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM's mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number F163-37397-00104 in all correspondence.

Comments should be sent to:

Jean Fix
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(800) 451-6027, ask for extension 4-8531
Or dial directly: (317) 234-8531
Fax: (317) 232-6749 attn: Jean Fix
E-mail: jfix@idem.IN.gov

All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

What will happen after IDEM makes a decision?

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, at the IDEM Regional Office indicated above, and the IDEM public file room on the 12th floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Jean Fix of my staff at the above address.

Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

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Carol S. Comer
Commissioner

DRAFT

Federally Enforceable State Operating Permit Renewal
OFFICE OF AIR QUALITY

DSM Engineering Plastics
2267 W. Mill Road
Evansville, Indiana 47720

(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.: F163-37397-00104	
Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: Expiration Date:

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 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)]

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

Source Address:	2267 W. Mill Road, Evansville, Indiana 47720
General Source Phone Number:	(812) 435-7715
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)]

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

Seven (7) Extruder Lines: Each line consists of dedicated Extruder and its corresponding Blender/Feeder System, Pelletizer and Classifier.

- The multiple dedicated fully enclosed feeders (nylon resin feeders, additive feeders, glass feeders, mineral feeders, and rework feeders) input specific raw materials into a blender (the feeder can also feed directly into the corresponding extruder) and together these make up one blender/feeder system.
- Materials move from the blender to extruder, creating plastic strands
- After extrusion, the fully enclosed pelletizers chop the plastic strands into pellets
- The fully enclosed classifiers remove unwanted pellets and convey the rest to the finished product silos.

(a) One (1) Extruder Line, identified as Line 6, constructed in 2000, with a line maximum capacity of 6,000 pounds per hour, using dust collector CDC-01 as control, exhausting to stack S-01, exhausting inside the building and consisting of:

(1) One (1) Blender, identified as BL06, with a maximum capacity of 1,500 pounds per hour.

(a) Six (6) Feeders dedicated to BL06, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	2,500
Feeder 2	3,000
Feeder 3	250
Feeder 4	2,500
Feeder 5	2,500
Feeder 6	3,000

(2) One (1) Extruder, identified as EX6, capable of processing a maximum combined capacity of 6,000 pounds inorganic and fiber filled raw material and nylon resin per hour, using an additional steam exhaust stack S-03. This unit processes only filled nylon resin components.

(3) One (1) Pelletizer, identified as P06, with a maximum capacity of 6,000 pounds per hour.

(4) One (1) Classifier, identified as CL06, with a maximum capacity of 6,000 pounds per hour.

(b) One (1) Extruder Line, identified as Line 34, constructed in 1995, with a line maximum capacity of 6,000 pounds per hour, using dust collector CDC-01 as control, exhausting to stack S-01, exhausting inside the building and consisting of:

(1) One (1) Blender, identified as BL034, with a maximum capacity of 1,500 pounds per hour.

(a) Four (4) Feeders, dedicated to BL034, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	2,000
Feeder 2	2,500
Feeder 3	1,500
Feeder 4	250

(2) One (1) Extruder, identified as EX34, with a maximum capacity of 6,000 pounds per hour, using an additional steam exhaust stack S-05. This unit can process either filled or unfilled nylon resin components.

(3) One (1) Pelletizer, identified as P034, with a maximum capacity of 6,000 pounds per hour.

(4) One (1) Classifier, identified as CL034, with a maximum capacity of 6,000 pounds per hour.

(c) One (1) Extruder Line, identified as Line 36, constructed in 1998with a line maximum capacity of 6,000 pounds per hour, using dust collector CDC-01 as control, exhausting to stack S-01, exhausting inside the building and consisting of:

(1) One (1) Blender, identified as BL036, with a maximum capacity of 1,700 pounds per hour.

(a) Four (4) Feeders, dedicated to BL036, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	2,000
Feeder 2	2,500
Feeder 3	1,500
Feeder 4	250

(2) One (1) Extruder, identified as EX36, with a maximum capacity of 6,000 pounds per hour, using an additional steam exhaust stack S-04. This unit can process either filled or unfilled nylon resin components.

(3) One (1) Pelletizer, identified as P036, with a maximum capacity of 6,000 pounds per hour.

(4) One (1) Classifier, identified as CL036, with a maximum capacity of 6,000 pounds per hour.

(d) One (1) Extruder Line, identified as Line 33, constructed in 1995, with a line maximum capacity of 1,000 pounds per hour, using dust collector DC-113, constructed in 2015, as control, exhausting to stack S-08 , exhausting to atmosphere and consisting of:

(1) One (1) Blender, identified as BL33, with a maximum capacity of 450 pounds per hour.

(a) Five (5) Feeders, dedicated to BL33, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	900
Feeder 2	500
Feeder 3	300
Feeder 4	300
Feeder 5	110

(2) One (1) Extruder, identified as EX33, with a maximum capacity of 1,000 pounds per hour, using an additional steam exhaust stack S-07. This unit can process either filled or unfilled nylon resin components.

(3) One (1) Pelletizer, identified as P033, with a maximum capacity of 2,000 pounds per hour.

(4) One (1) Classifier, identified as CL033, with a maximum capacity of 2,000 pounds per hour.

(e) One (1) Extruder Line, identified as Line 35, constructed in 1997, with a line maximum capacity of 6,000 pounds per hour, using dust collector DC-114, constructed in 2015, as control, exhausting to stack S-11, exhausting to atmosphere and consisting of:

(1) One (1) Blender, identified as BL035, with a maximum capacity of 1,500 pounds per hour.

(a) Six (6) Feeders, dedicated to BL035, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	4,000
Feeder 2	3,000
Feeder 3	300
Feeder 4	3,000
Feeder 5	3,000
Feeder 6	300

(2) One (1) Extruder, identified as EX35, with a maximum capacity of 6,000 pounds per hour, using an additional smog hog exhaust stack S-12 and steam exhaust stacks S-09/S-10. Unit EX35 uses both the dust collector and a smog hog electrostatic filter as control. This unit can process either filled or unfilled nylon resin components.

(3) One (1) Pelletizer, identified as P035, with a maximum capacity of 6,000 pounds per hour.

(4) One (1) Classifier, identified as CL035, with a maximum capacity of 6,000 pounds per hour.

(f) One (1) Extruder Line, identified as Line 7, constructed in 2012, with a line maximum capacity of 10,000 pounds per hour, using dust collector CDC-01 as control, exhausting to stack S-01, exhausting inside the building and consisting of:

(1) One (1) Blender, identified as BL07, with a maximum capacity of 1,500 pounds per hour.

(a) Seven (7) Feeders, dedicated to BL07, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	2,200
Feeder 2	8,000
Feeder 3	100
Feeder 4	2,200
Feeder 5	4,500
Feeder 6	250
Feeder 7	1,000

(2) One (1) Extruder, identified as EX7, capable of processing a maximum combined capacity of 10,000 pounds inorganic and fiber filled raw material and nylon resin per hour. This unit processes only filled nylon resin components.

(3) One (1) Pelletizer, identified as P07, with a maximum capacity of 10,000 pounds per hour.

(4) One (1) Classifier, identified as CL07, with a maximum capacity of 10,000 pounds per hour.

(g) One (1) R&D Extruder Line, identified as Line 39, constructed in 1988, with a line maximum capacity of 300 pounds per hour, using dust collector DC-16 as control, exhausting to stack S-16, exhausting to atmosphere and consisting of:

(1) Three (3) direct line Feeders, dedicated to Extruder EX39, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	200
Feeder 2	200
Feeder 3	100

(2) One (1) Extruder, identified as EX39, with a maximum capacity of 300 pounds per hour. This unit can process either filled or unfilled nylon resin components.

(3) One (1) Pelletizer, identified as P039, with a maximum capacity of 300 pounds per hour.

Molding Machines:

(h) One (1) Molding machine (R&D), identified as MM14, constructed in 2014, with a maximum capacity of 14.4 pounds per hour, with no control and exhausting to indoors.

(i) 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.

(j) 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.

(k) 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:

(l) One (1) Abrasive Blasting Unit, identified as ABU1, constructed in 1990's, with a maximum capacity of 135 pounds per hour of glass bead, using dust collector CDC-01 as control, and exhausting to stack S-01 and exhausting inside the building.

(m) One (1) Maintenance Part Washer, identified as CC1, constructed in 2003, with a maximum capacity of 1 gallon per day, no control, exhausting indoors.

(n) One (1) East Cooling Tower, identified as ECT, constructed in 2005, with a maximum capacity of 1,000 gallon per minute, no control, exhausting to atmosphere.

(o) One (1) Aerosol Can Crushing Unit, identified as ACC1, constructed in 2005, with a maximum capacity of 800 cans per year, no control, exhausting indoors.

Raw Material Handling and Storage:

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

(1) One (1) Bulk Rail Loadout System, installed in 1970;

(2) One (1) Bulk Truck Loadout System, installed in 1970;

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

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

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

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

[Powders and fiberglass arrive in bags or sacks and remain in containers until usage.]

(7) One (1) Storage Silo, identified as Tank R1, installed in 1992, with a maximum capacity of 62,000 pounds of raw materials, no control, exhausting to atmosphere.

Tank R1 can also hold finished goods.

Product Handling and Storage

(q) 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.

Tank 0509 and Tank 0510 are controlled by dust collector CDC-01 and exhausting to stack S-01, exhausting inside the building.

(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 silos (3) - (9) are controlled by dust collector DC-14 and exhausting to stack S-14, exhausting to atmosphere.

(10) One (1) Storage Silo, identified as Tank R1, installed in 1992, with a maximum capacity of 62,000 pounds of finished goods, no control, exhausting to atmosphere.

Tank R1 can also hold raw materials.

(r) One (1) Bag Packaging System;

(s) One (1) Box Packaging System;

(t) One (1) Re-packaging System;

(u) One (1) Bulk Truck Loadout System.

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

This stationary source also includes the following insignificant activities:

(a) Thirty-four (34) natural gas fired units, with a combined total heat input of 15.29 MMBtu/hr.

(b) One (1) Electric Mold Shop Dryer consisting of forty (40) trays of finished goods, with a maximum capacity of 73,000 pounds per year of finished molded product.

(c) UL Testing Instrument, with maximum capacity of 1,095 pounds per year of raw materials or products.

(d) Ash Testing Instrument, with maximum capacity of 116 pounds per year of raw materials or products.

(e) Moisture Testing Instrument, with maximum capacity of 173 pounds per year of raw materials or products.

(f) One (1) Electric Beranger Burn-off Oven, with maximum capacity of 400 pounds per year of raw materials or products.

(g) One (1) welding booth, consisting of four (4) welding stations, designed for only one welder at a time for maintenance, constructed in 2001, using 2.7 pounds per hour of weld wire.

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

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) to renew a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, F163-37397-00104, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

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

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

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-8-6][IC 13-17-12]

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

B.5 Severability [326 IAC 2-8-4(4)]

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

B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

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

(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. All 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.10 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.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]

(a) A Preventive Maintenance Plan (PMP) meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

(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.

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, 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.

(c) 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).

(d) 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.12 Emergency Provisions [326 IAC 2-8-12]

(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.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to F163-37397-00104 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.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

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.15 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]

(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.16 Permit Renewal [326 IAC 2-8-3(h)]

(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(42). 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.17 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

(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.18 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) 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) and (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.19 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.20 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.21 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.22 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.23 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 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), 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.

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than one hundred (100) 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.2 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.3 Open Burning [326 IAC 4-1][IC 13-17-9]

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

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

The Permittee shall not operate an incinerator 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.5 Fugitive Dust Emissions [326 IAC 6-4]

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

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

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]

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(1)][326 IAC 2-8-5(a)(1)]

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

(a) For new units:
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.

(b) For existing units:
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 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, 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).

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

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. The analog instrument shall be capable of measuring values outside of the normal range.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [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]

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

(a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) 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, where applicable:

(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, where applicable:

(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]

(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) 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

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:
Seven (7) Extruder Lines: Each line consists of dedicated Extruder and its corresponding Blender/Feeder System, Pelletizer and Classifier.

- The multiple dedicated fully enclosed feeders (nylon resin feeders, additive feeders, glass feeders, mineral feeders, and rework feeders) input specific raw materials into a blender (the feeder can also feed directly into the corresponding extruder) and together these make up one blender/feeder system.
- Materials move from the blender to extruder, creating plastic strands
- After extrusion, the fully enclosed pelletizers chop the plastic strands into pellets
- The fully enclosed classifiers remove unwanted pellets and convey the rest to the finished product silos.

(a) One (1) Extruder Line, identified as Line 6, constructed in 2000, with a line maximum capacity of 6,000 pounds per hour, using dust collector CDC-01 as control, exhausting to stack S-01, exhausting inside the building and consisting of:

(1) One (1) Blender, identified as BL06, with a maximum capacity of 1,500 pounds per hour.

(a) Six (6) Feeders dedicated to BL06, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	2,500
Feeder 2	3,000
Feeder 3	250
Feeder 4	2,500
Feeder 5	2,500
Feeder 6	3,000

(2) One (1) Extruder, identified as EX6, capable of processing a maximum combined capacity of 6,000 pounds inorganic and fiber filled raw material and nylon resin per hour, using an additional steam exhaust stack S-03. This unit processes only filled nylon resin components.

(3) One (1) Pelletizer, identified as P06, with a maximum capacity of 6,000 pounds per hour.

(4) One (1) Classifier, identified as CL06, with a maximum capacity of 6,000 pounds per hour.

(b) One (1) Extruder Line, identified as Line 34, constructed in 1995, with a line maximum capacity of 6,000 pounds per hour, using dust collector CDC-01 as control, exhausting to stack S-01, exhausting inside the building and consisting of:

(1) One (1) Blender, identified as BL034, with a maximum capacity of 1,500 pounds per hour.

(a) Four (4) Feeders, dedicated to BL034, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	2,000
Feeder 2	2,500

Feeder 3	1,500
Feeder 4	250

(2) One (1) Extruder, identified as EX34, with a maximum capacity of 6,000 pounds per hour, using an additional steam exhaust stack S-05. This unit can process either filled or unfilled nylon resin components.

(3) One (1) Pelletizer, identified as P034, with a maximum capacity of 6,000 pounds per hour.

(4) One (1) Classifier, identified as CL034, with a maximum capacity of 6,000 pounds per hour.

(c) One (1) Extruder Line, identified as Line 36, constructed in 1998, with a line maximum capacity of 6,000 pounds per hour, using dust collector CDC-01 as control, exhausting to stack S-01, exhausting inside the building and consisting of:

(1) One (1) Blender, identified as BL036, with a maximum capacity of 1,700 pounds per hour.

(a) Four (4) Feeders, dedicated to BL036, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	2,000
Feeder 2	2,500
Feeder 3	1,500
Feeder 4	250

(2) One (1) Extruder, identified as EX36, with a maximum capacity of 6,000 pounds per hour, using an additional steam exhaust stack S-04. This unit can process either filled or unfilled nylon resin components.

(3) One (1) Pelletizer, identified as P036, with a maximum capacity of 6,000 pounds per hour.

(4) One (1) Classifier, identified as CL036, with a maximum capacity of 6,000 pounds per hour.

(d) One (1) Extruder Line, identified as Line 33, constructed in 1995, with a line maximum capacity of 1,000 pounds per hour, using dust collector DC-113, constructed in 2015, as control, exhausting to stack S-08, exhausting to atmosphere and consisting of:

(1) One (1) Blender, identified as BL33, with a maximum capacity of 450 pounds per hour.

(a) Five (5) Feeders, dedicated to BL33, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	900
Feeder 2	500
Feeder 3	300
Feeder 4	300
Feeder 5	110

(2) One (1) Extruder, identified as EX33, with a maximum capacity of 1,000 pounds per

hour, using an additional steam exhaust stack S-07. This unit can process either filled or unfilled nylon resin components.

(3) One (1) Pelletizer, identified as P033, with a maximum capacity of 2,000 pounds per hour.

(4) One (1) Classifier, identified as CL033, with a maximum capacity of 2,000 pounds per hour.

(e) One (1) Extruder Line, identified as Line 35, constructed in 1997, with a line maximum capacity of 6,000 pounds per hour, using dust collector DC-114, constructed in 2015, as control, exhausting to stack S-11, exhausting to atmosphere and consisting of:

(1) One (1) Blender, identified as BL035, with a maximum capacity of 1,500 pounds per hour.

(a) Six (6) Feeders, dedicated to BL035, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	4,000
Feeder 2	3,000
Feeder 3	300
Feeder 4	3,000
Feeder 5	3,000
Feeder 6	300

(2) One (1) Extruder, identified as EX35, with a maximum capacity of 6,000 pounds per hour, using an additional smog hog exhaust stack S-12 and steam exhaust stacks S-09/S-10. Unit EX35 uses both the dust collector and a smog hog electrostatic filter as control. This unit can process either filled or unfilled nylon resin components.

(3) One (1) Pelletizer, identified as P035, with a maximum capacity of 6,000 pounds per hour.

(4) One (1) Classifier, identified as CL035, with a maximum capacity of 6,000 pounds per hour.

(f) One (1) Extruder Line, identified as Line 7, constructed in 2012, with a line maximum capacity of 10,000 pounds per hour, using dust collector CDC-01 as control, exhausting to stack S-01, exhausting inside the building and consisting of:

(1) One (1) Blender, identified as BL07, with a maximum capacity of 1,500 pounds per hour.

(a) Seven (7) Feeders, dedicated to BL07, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	2,200
Feeder 2	8,000
Feeder 3	100
Feeder 4	2,200
Feeder 5	4,500
Feeder 6	250
Feeder 7	1,000

(2) One (1) Extruder, identified as EX7, capable of processing a maximum combined capacity of 10,000 pounds inorganic and fiber filled raw material and nylon resin per hour. This unit processes only filled nylon resin components.

(3) One (1) Pelletizer, identified as P07, with a maximum capacity of 10,000 pounds per hour.

(4) One (1) Classifier, identified as CL07, with a maximum capacity of 10,000 pounds per hour.

(g) One (1) R&D Extruder Line, identified as Line 39, constructed in 1988, with a line maximum capacity of 300 pounds per hour, using dust collector DC-16 as control, exhausting to stack S-16, exhausting to atmosphere and consisting of:

(1) Three (3) direct line Feeders, dedicated to Extruder EX39, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	200
Feeder 2	200
Feeder 3	100

(2) One (1) Extruder, identified as EX39, with a maximum capacity of 300 pounds per hour. This unit can process either filled or unfilled nylon resin components.

(3) One (1) Pelletizer, identified as P039, with a maximum capacity of 300 pounds per hour.

Molding Machines:

(h) One (1) Molding machine (R&D), identified as MM14, constructed in 2014, with a maximum capacity of 14.4 pounds per hour, with no control and exhausting to indoors.

(i) 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.

(j) 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.

(k) 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:

(l) One (1) Abrasive Blasting Unit, identified as ABU1, constructed in 1990's, with a maximum capacity of 135 pounds per hour of glass bead, using dust collector CDC-01 as control, and exhausting to stack S-01, exhausting inside the building.

(m) One (1) Maintenance Part Washer, identified as CC1, constructed in 2003, with a maximum capacity of 1 gallon per day, no control, exhausting indoors.

(n) One (1) East Cooling Tower, identified as ECT, constructed in 2005, with a maximum capacity of 1,000 gallon per minute, no control, exhausting to atmosphere.

(o) One (1) Aerosol Can Crushing Unit, identified as ACC1, constructed in 2005, with a maximum capacity of 800 cans per year, no control, exhausting indoors.

Raw Material Handling and Storage:

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

(1) One (1) Bulk Rail Loadout System, installed in 1970;

(2) One (1) Bulk Truck Loadout System, installed in 1970;

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

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

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

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

[Powders and fiberglass arrive in bags or sacks and remain in containers until usage.]

(7) One (1) Storage Silo, identified as Tank R1, installed in 1992, with a maximum capacity of 62,000 pounds of raw materials, no control, exhausting to atmosphere.

Tank R1 can also hold finished goods.

Product Handling and Storage

(q) 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.

Tank 0509 and Tank 0510 are controlled by dust collector CDC-01 and exhausting to stack S-01, exhausting inside the building.

(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 silos (3) - (9) are controlled by dust collector DC-14 and exhausting to stack S-14, exhausting to atmosphere.

(10) One (1) Storage Silo, identified as Tank R1, installed in 1992, with a maximum capacity of 62,000 pounds of finished goods, no control, exhausting to atmosphere.

Tank R1 can also hold raw materials.

(r) One (1) Bag Packaging System;

(s) One (1) Box Packaging System;

(t) One (1) Re-packaging System;

(u) One (1) Bulk Truck Loadout System.

Insignificant activities:

(a) Thirty-four (34) natural gas fired units, with a combined total heat input of 15.29 MMBtu/hr.

(b) One (1) Electric Mold Shop Dryer consisting of forty (40) trays of finished goods, with a maximum capacity of 73,000 pounds per year of finished molded product.

(c) UL Testing Instrument, with maximum capacity of 1,095 pounds per year of raw materials or products.

(d) Ash Testing Instrument, with maximum capacity of 116 pounds per year of raw materials or products.

(e) Moisture Testing Instrument, with maximum capacity of 173 pounds per year of raw materials or products.

(f) One (1) Electric Beranger Burn-off Oven, with maximum capacity of 400 pounds per year of raw materials or products.

(g) One (1) welding booth, consisting of four (4) welding stations, designed for only one welder at a time for maintenance, constructed in 2001, using 2.7 pounds per hour of weld wire.

(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:

(a) The combined PM10 emissions from the raw material handling and storage, which include the rail loadout system, truck loadout system and all tanks, controlled by Filters DC-25a and DC-25b, and exhausting to stacks S-25a and S-25b shall not exceed 2.74 lbs/hr;

(b) The combined PM2.5 emissions from the raw material handling and storage, which include the rail loadout system, truck loadout system and all tanks, controlled by Filters DC-25a and DC-25b, and exhausting to stacks S-25a and S-25b shall not exceed 2.74 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, each and shall render 326 IAC 2-7 (Part 70 Permits), not applicable.

D.1.2 Particulate Emission Limitations [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a) (Particulate Emission Limitations), the allowable PM emission rate from each units listed on the following table shall not exceed three-hundredths (0.03) grain per dry standard cubic foot.

Emission Unit	control device (dust collector)	Allowable Particulate Emission Rate (grain/dscf)
raw material bulk rail loadout	DC-25a, DC-25b	0.03
raw material bulk truck loadout	DC-25a, DC-25b	0.03
raw material storage silo (Tank 0105)	DC-25a, DC-25b	0.03
raw material storage silo (Tank 0106)	DC-25a, DC-25b	0.03
raw material storage silo (Tank 0107)	DC-25a, DC-25b	0.03
raw material storage silo (Tank 0108)	DC-25a, DC-25b	0.03
Extruder Line 6	CDC-01	0.03
Extruder Line 7	CDC-01	0.03
Extruder Line 33	DC-113	0.03
Extruder Line 34	CDC-01	0.03
Extruder Line 35	DC-114	0.03
Extruder Line 36	CDC-01	0.03
Extruder Line 39	DC-16	0.03
Molding Machine MM14	no control	0.03
Molding Machine MM10	no control	0.03
Molding Machine MM12	no control	0.03
Molding Machine MM13	no control	0.03
Abrasive Blasting Unit ABU1	CDC-01	0.03
East Cooling Tower ECT	no control	0.03
Final Product Storage Silo (Tank 0509)	CDC-01	0.03
Final Product Storage Silo (Tank 0510)	CDC-01	0.03
Final Product Storage Silo (Tank 0507)	DC-14	0.03
Final Product Storage Silo (Tank 0111)	DC-14	0.03
Final Product Storage Silo (Tank 0112)	DC-14	0.03
Final Product Storage Silo (Tank 0503)	DC-14	0.03
Final Product Storage Silo (Tank 0504)	DC-14	0.03
Final Product Storage Silo (Tank 0505)	DC-14	0.03
Final Product Storage Silo (Tank 0506)	DC-14	0.03

Emission Unit	control device (dust collector)	Allowable Particulate Emission Rate (grain/dscf)
Final Product Storage Silo (Tank R1)	no control	0.03
Final Product Bag Packaging System	no control	0.03
Final Product Box Packaging System	no control	0.03
Final Product Re-packaging System	no control	0.03
Final Product Bulk Truck Loadout	no control	0.03
thirty-four (34) Natural gas-fired units	no control	0.03 each
Mold Shop Dryer	no control	0.03
UL Testing Instrument	no control	0.03
Ash Testing Instrument	no control	0.03
Moisture Testing Instrument	no control	0.03
Welding Booth	no control	0.03

D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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.

D.1.4 Incinerators [326 IAC 4-2-2]

Pursuant to 326 IAC 4-2-2, the Beranger burn-off oven shall comply with the following requirements:

(a) All incinerators shall comply with the following requirements:

(1) Consist of primary and secondary chambers or the equivalent.

(2) Be equipped with a primary burner unless burning only wood products.

(3) Comply with 326 IAC 5-1 and 326 IAC 2.

(4) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in subsection 326 IAC 4-2-2(c).

(5) Not emit particulate matter in excess of one (1) of the following:

(A) Three-tenths (0.3) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with a maximum solid waste capacity of greater than or equal to two hundred (200) pounds per hour.

(B) Five-tenths (0.5) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with solid waste capacity less than two hundred (200) pounds per hour.

(6) If any of the requirements of subdivisions (1) through (5) are not met, then the owner or operator shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

(b) An owner or operator developing an operation and maintenance plan pursuant to subsection (a)(4) must comply with the following:

(1) The operation and maintenance plan must be designed to meet the particulate matter emission limitation specified in subsection (a)(5) and include the following:

(A) Procedures for receiving, handling, and charging waste.
(B) Procedures for incinerator startup and shutdown.
(C) Procedures for responding to a malfunction.
(D) Procedures for maintaining proper combustion air supply levels.
(E) Procedures for operating the incinerator and associated air pollution control systems.
(F) Procedures for handling ash.
(G) A list of wastes that can be burned in the incinerator.

(2) Each incinerator operator shall review the plan before initial implementation of the operation and maintenance plan and annually thereafter.

(3) The operation and maintenance plan must be readily accessible to incinerator operators.

(4) The owner or operator of the incinerator shall notify the department, in writing, thirty (30) days after the operation and maintenance plan is initially developed pursuant to this section.

(c) The owner or operator of the incinerator must make the manufacturer's specifications or the operation and maintenance plan available to the department upon request.

Compliance Determination Requirements [326 IAC 2-8-4(1)]

D.1.5 Particulate Control

(a) 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 operations at all times that units that dust collectors control are in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.1.6 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

In order to verify the uncontrolled VOC and HAP (Caprolactam) emissions from the Extruder EX6, the Permittee shall perform uncontrolled VOC and HAP (Caprolactam) testing on the Extruder EX6 not later than 180 days after issuance of FESOP Permit Renewal F163-37397-00104, utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

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

D.1.7 Visible Emissions Notations

(a) Visible emission notations of the exhaust raw materials handling; bulk rail loading system, bulk truck loading system and storages stacks S-25a and S-25b 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.1.8 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the dust collector CDC-01 used in conjunction with the Extruder Lines 6, 34, 36 and 7, at least once per day, when the corresponding units are in operation.

When for any one reading, the pressure drop across the dust collector is outside the normal range the Permittee shall take a reasonable response. The normal range for this unit is 1.0 and 6.0 inches unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

(b) The instrument used for determining the pressure shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

D.1.9 Broken or Failed Dust Collector Detection

(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).

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.1.10 Record Keeping Requirements

(a) To document the compliance status with Condition D.1.7 the Permittee shall maintain daily records of visible emission notations of the raw material and storage loading exhaust stack S-25a and S-25b. 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) To document the compliance status with Conditions D.1.8, the Permittee shall maintain records once per day of the pressure drop across the dust collector CDC-01. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the process did not operate that day).

(c) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Miscellaneous:

(m) One (1) Maintenance Part Washer, identified as CC1, constructed in 2003, with a maximum capacity of 1 gallon per day, no control, exhausting indoors.

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

(a) Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), for cold cleaning degreasers without remote solvent reservoirs constructed after July 1, 1990:

(1) Equip the degreaser with a cover.

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

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

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

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

(6) Store waste solvent only in closed containers.

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

(b) The Permittee shall ensure the following additional control equipment and operating requirements are met:

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

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

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

(C) A refrigerated chiller.

(D) Carbon adsorption.

(E) An alternative system of demonstrated equivalent or better control as those outlined in (b)(1)(A) through (D) of this condition that is approved

by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

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

(3) If used, solvent spray:

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

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

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers), on and after January 1, 2015, the Permittee shall not operate a cold cleaner degreaser with a solvent that has a VOC composite partial vapor pressure than exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

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

D.2.3 Record Keeping Requirements

(a) To document compliance status with Condition D.2.2, pursuant to 326 IAC 8-3-8(c)(2), on and after January 1, 2015, the Permittee shall maintain the following records for each purchase of solvent used in the cold cleaner degreasing operations. These records shall be retained on site or accessible electronically for the most recent three (3) year period and shall be reasonably accessible for the additional two (2) year period.

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

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

(3) The type of solvent purchased.

(4) The total volume of the solvent purchased.

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

(b) Section C - General Record Keeping Requirements of this permit 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 Road, Evansville, Indiana 47720
FESOP Permit No.: F163-37397-00104

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 Road, Evansville, Indiana 47720
FESOP Permit No.: F163-37397-00104

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**) daytime 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 2-8-12

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

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

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

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 Road, Evansville, Indiana 47720
FESOP Permit No.: F163-37397-00104

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

Page 1 of 2

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 "No deviations occurred this reporting period".

□ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

□ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

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

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

Page 2 of 2

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

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit Renewal

Source Background and Description

Source Name:	**DSM Engineering Plastics**
Source Location:	**2267 W. Mill Road, Evansville, IN 47720**
County:	**Vanderburgh**
SIC Code:	**3087 (Custom Compounding of Purchased Plastic Resins)**
Permit Renewal No.:	**F163-37397-00104**
Permit Reviewer:	**Jean Fix**

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from DSM Engineering Plastics relating to the operation of a stationary plastic pellet and molding manufacturing source**.** On July 12, 2016, DSM Engineering Plastics submitted an application to the OAQ requesting to renew its operating permit. DSM Engineering Plastics was issued a New Source FESOP Permit (F163-30875-00104) on April 25, 2012.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

Seven (7) Extruder Lines: Each line consists of dedicated Extruder and its corresponding Blender/Feeder System, Pelletizer and Classifier.

- The multiple dedicated fully enclosed feeders (nylon resin feeders, additive feeders, glass feeders, mineral feeders, and rework feeders) input specific raw materials into a blender (the feeder can also feed directly into the corresponding extruder) and together these make up one blender/feeder system.
- Materials move from the blender to extruder, creating plastic strands
- After extrusion, the fully enclosed pelletizers chop the plastic strands into pellets
- The fully enclosed classifiers remove unwanted pellets and convey the rest to the finished product silos.

The unit listings have been revised in this renewal based on the process description mentioned above.

The dust collector that had previously been identified as CD-1 has been changed to CDC-01 per source request.

(a) One (1) Extruder Line, identified as Line 6, constructed in 2000, with a line maximum capacity of 6,000 pounds per hour, using dust collector CDC-01 as control, exhausting to stack S-01, exhausting inside the building and consisting of:

(1) One (1) Blender, identified as BL06, with a maximum capacity of 1,500 pounds per hour.

(a) Six (6) Feeders dedicated to BL06, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	2,500
Feeder 2	3,000
Feeder 3	250
Feeder 4	2,500
Feeder 5	2,500
Feeder 6	3,000

(2) One (1) Extruder, identified as EX6, capable of processing a maximum combined capacity of 6,000 pounds inorganic and fiber filled raw material and nylon resin per hour, using an additional steam exhaust stack S-03. This unit processes only filled nylon resin components.

(3) One (1) Pelletizer, identified as P06, with a maximum capacity of 6,000 pounds per hour.

(4) One (1) Classifier, identified as CL06, with a maximum capacity of 6,000 pounds per hour.

(b) One (1) Extruder Line, identified as Line 34, constructed in 1995, with a line maximum capacity of 6,000 pounds per hour, using dust collector CDC-01 as control, exhausting to stack S-01, exhausting inside the building and consisting of:

(1) One (1) Blender, identified as BL034, with a maximum capacity of 1,500 pounds per hour.

(a) Four (4) Feeders, dedicated to BL034, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	2,000
Feeder 2	2,500
Feeder 3	1,500
Feeder 4	250

(2) One (1) Extruder, identified as EX34, with a maximum capacity of 6,000 pounds per hour, using an additional steam exhaust stack S-05. This unit can process either filled or unfilled nylon resin components.

(3) One (1) Pelletizer, identified as P034, with a maximum capacity of 6,000 pounds per hour.

(4) One (1) Classifier, identified as CL034, with a maximum capacity of 6,000 pounds per hour.

(c) One (1) Extruder Line, identified as Line 36, constructed in 1998, with a line maximum capacity of 6,000 pounds per hour, using dust collector CDC-01 as control, exhausting to stack S-01, exhausting inside the building and consisting of:

(1) One (1) Blender, identified as BL036, with a maximum capacity of 1,700 pounds per hour.

(a) Four (4) Feeders, dedicated to BL036, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	2,000
Feeder 2	2,500
Feeder 3	1,500
Feeder 4	250

(2) One (1) Extruder, identified as EX36, with a maximum capacity of 6,000 pounds per hour, using an additional steam exhaust stack S-04. This unit can process either filled or unfilled nylon resin components.

(3) One (1) Pelletizer, identified as P036, with a maximum capacity of 6,000 pounds per hour.

(4) One (1) Classifier, identified as CL036, with a maximum capacity of 6,000 pounds per hour.

(d) One (1) Extruder Line, identified as Line 33, constructed in 1995, with a line maximum capacity of 1,000 pounds per hour, using dust collector DC-113, constructed in 2015, as control, exhausting to stack S-08, exhausting to atmosphere, and consisting of:

(1) One (1) Blender, identified as BL33, with a maximum capacity of 450 pounds per hour.

(a) Five (5) Feeders, dedicated to BL33, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	900
Feeder 2	500
Feeder 3	300
Feeder 4	300
Feeder 5	110

(2) One (1) Extruder, identified as EX33, with a maximum capacity of 1,000 pounds per hour, using an additional steam exhaust stack S-07. This unit can process either filled or unfilled nylon resin components.

(3) One (1) Pelletizer, identified as P033, with a maximum capacity of 2,000 pounds per hour.

(4) One (1) Classifier, identified as CL033, with a maximum capacity of 2,000 pounds per hour.

(e) One (1) Extruder Line, identified as Line 35, constructed in 1997, with a line maximum capacity of 6,000 pounds per hour, using dust collector DC-114, constructed in 2015, as control, exhausting to stack S-11, exhausting to atmosphere and consisting of:

(1) One (1) Blender, identified as BL035, with a maximum capacity of 1,500 pounds per hour.

(a) Six (6) Feeders, dedicated to BL035, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	4,000
Feeder 2	3,000
Feeder 3	300
Feeder 4	3,000
Feeder 5	3,000
Feeder 6	300

(2) One (1) Extruder, identified as EX35, with a maximum capacity of 6,000 pounds per hour, using an additional smog hog exhaust stack S-12 and steam exhaust stacks S-09/S-10. Unit EX35 uses both the dust collector and a smog hog electrostatic filter as control. This unit can process either filled or unfilled nylon resin components.

(3) One (1) Pelletizer, identified as P035, with a maximum capacity of 6,000 pounds per hour.

(4) One (1) Classifier, identified as CL035, with a maximum capacity of 6,000 pounds per hour.

(f) One (1) Extruder Line, identified as Line 7, constructed in 2012, with a line maximum capacity of 10,000 pounds per hour, using dust collector CDC-01 as control, exhausting to stack S-01, exhausting inside the building and consisting of:

(1) One (1) Blender, identified as BL07, with a maximum capacity of 1,500 pounds per hour.

(a) Seven (7) Feeders, dedicated to BL07, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	2,200
Feeder 2	8,000
Feeder 3	100
Feeder 4	2,200
Feeder 5	4,500
Feeder 6	250
Feeder 7	1,000

(2) One (1) Extruder, identified as EX7, capable of processing a maximum combined capacity of 10,000 pounds inorganic and fiber filled raw material and nylon resin per hour. This unit processes only filled nylon resin components.

(3) One (1) Pelletizer, identified as P07, with a maximum capacity of 10,000 pounds per hour.

(4) One (1) Classifier, identified as CL07, with a maximum capacity of 10,000 pounds per hour.

(g) One (1) R&D Extruder Line, identified as Line 39, constructed in 1988, with a line maximum capacity of 300 pounds per hour, using dust collector DC-16 as control, exhausting to stack S-16, exhausting to atmosphere and consisting of:

(1) Three (3) direct line Feeders, dedicated to Extruder EX39, which do not operate at the same time:

Unit ID	Maximum capacity (lbs/hr)
Feeder 1	200
Feeder 2	200
Feeder 3	100

(2) One (1) Extruder, identified as EX39, with a maximum capacity of 300 pounds per hour. This unit can process either filled or unfilled nylon resin components.

(3) One (1) Pelletizer, identified as P039, with a maximum capacity of 300 pounds per hour.

Further evaluation and discussion with source has determined that the extruders and their corresponding blender/feeder systems are considered "Lines" with a bottleneck at each extruder. Emission unit descriptions have been rearranged in this manner, with the extruder maximum capacity considered the same as the Line maximum throughput. Additional 'line' components (feeders, pelletizer and classifier) have been added to the unit descriptions with their individual maximum capacities.

The previously listed capacities for each Extruder and Blender were originally reported incorrectly by source and were not calculated based on full potential to emit of 8760 hours per year. Therefore, the correct maximum capacities have been added to the extruder and blender descriptions.

Molding Machines:

(h) One (1) Molding machine (R&D), identified as MM14, constructed in 2014, with a maximum capacity of 14.4 pounds per hour, with no control and exhausting to indoors.

(i) 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.

(j) 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.

(k) 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:

(l) One (1) Abrasive Blasting Unit, identified as ABU1, constructed in 1990's, with a maximum capacity of 135 pounds per hour of glass bead, using dust collector CDC-01 as control, and exhausting to stack S-01 and exhausting inside the building.

Further evaluation and discussion with source has determined that the previously listed capacity for the Abrasive Blasting Unit (ABU1) was originally reported incorrectly by source. The blasting unit accommodates a 50 pound bag of glass beads every 40 minutes. The source has suggested a conservative 135 pounds per hour for maximum throughput. Therefore, the requested maximum capacity has been added to the blasting unit description.

(m) One (1) Maintenance Part Washer, identified as CC1, constructed in 2003, with a maximum capacity of 1 gallon per day, no control, exhausting indoors.

(n) One (1) East Cooling Tower, identified as ECT, constructed in 2005, with a maximum capacity of 1,000 gallon per minute, no control, exhausting to atmosphere.

(o) One (1) Aerosol Can Crushing Unit, identified as ACC1, constructed in 2005, with a maximum capacity of 800 cans per year, no control, exhausting indoors.

Raw Material Handling and Storage:

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

(1) One (1) Bulk Rail Loadout System, installed in 1970;

(2) One (1) Bulk Truck Loadout System, installed in 1970;

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

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

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

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

[Powders and fiberglass arrive in bags or sacks and remain in containers until usage.]

(7) One (1) Storage Silo, identified as Tank R1, installed in 1992, with a maximum capacity of 62,000 pounds of raw materials, no control, exhausting to atmosphere.

Tank R1 can also hold finished goods.

Product Handling and Storage

(q) 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.

Tank 0509 and Tank 0510 are controlled by dust collector CDC-01 and exhausting to stack S-01, exhausting inside the building.

(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 silos (3) - (9) are controlled by dust collector DC-14 and exhausting to stack S-14, exhausting to atmosphere.

(10) One (1) Storage Silo, identified as Tank R1, installed in 1992, with a maximum capacity of 62,000 pounds of finished goods, no control, exhausting to atmosphere.

Tank R1 can also hold raw materials.

(r) One (1) Bag Packaging System;

(s) One (1) Box Packaging System;

(t) One (1) Re-packaging System;

(u) One (1) Bulk Truck Loadout System.

Insignificant Activities

The source also consists of the following insignificant activities:

(a) Thirty-four (34) natural gas fired units, with a combined total heat input of 15.29 MMBtu/hr.

(b) One (1) Electric Mold Shop Dryer consisting of forty (40) trays of finished goods, with a maximum capacity of 73,000 pounds per year of finished molded product.

The mold shop dryer is an existing unit that had inadvertently been left out of the insignificant activity descriptions. It is being added to this renewal for unit consistency.

(c) UL Testing Instrument, with maximum capacity of 1,095 pounds per year of raw materials or products.

(d) Ash Testing Instrument, with maximum capacity of 116 pounds per year of raw materials or products.

(e) Moisture Testing Instrument, with maximum capacity of 173 pounds per year of raw materials or products.

(f) One (1) Electric Beranger Burn-off Oven, with maximum capacity of 400 pounds per year of raw materials or products.

Further evaluation and discussion with source for the units above (mold shop dryer, UL, ash and moisture testing instruments and the burn-off oven) has determined that the previously listed capacities were originally reported incorrectly by source and did not take into account testing protocol and methodology. Therefore, the correct maximum capacities have been added to these unit descriptions.

(g) One (1) welding booth, consisting of four (4) welding stations, designed for only one welder at a time for maintenance, constructed in 2001, using 2.7 pounds per hour of weld wire.

Further evaluation and discussion with source for the maintenance welding has determined that there is only one (1) welding booth that contains four (4) stations, instead of five (5) welding stations and that the booth is designed so that only one station may be in use at one time Therefore, the welding description has been updated with clearer language.

Emission Units and Pollution Control Equipment Removed From the Source

The source has removed the following emission unit:

(a) One (1) Blender, identified as BL095, constructed in 1981, with a maximum capacity of 1,500 pounds per hour, using dust collector CDC-01 as control, and exhausting to stack S-01.

The source has confirmed that the blender (BL095) has been taken out of service and has requested it be removed from the permit.

Existing Approvals

Since the issuance of the FESOP (F163-30875-00104) on April 25, 2012, the source has constructed or has been operating under the following additional approvals:

(a) Administrative Amendment No. 163-32133-00104, issued on August 16, 2012;

(b) Administrative Amendment No. 163-34581-00104, issued on July 22, 2014; and

(c) Administrative Amendment No. 163-35838-00104, issued on June 12, 2015.

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

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document 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.

Further evaluation and discussion with source has determined that the final product conveying and storage does not emit VOC. Therefore on page 10 of Appendix A of this TSD the VOC PTE calculation for final product conveying and storage has been removed.

County Attainment Status

The source is located in Vanderburgh County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard.[1]
$PM_{2.5}$	Attainment effective October 27, 2011, for the annual $PM_{2.5}$ standard.
$PM_{2.5}$	Unclassifiable or attainment effective December 13, 2009, for the 24-hour $PM_{2.5}$ standard.
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.

[1]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.

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x 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 NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
Vanderburgh County has been classified as attainment for $PM_{2.5}$. Therefore, direct $PM_{2.5}$, SO_2, and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Other Criteria Pollutants
Vanderburgh County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

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.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Unrestricted Potential Emissions	
Pollutant	Tons/year
PM	239.43
PM_{10}	126.72
$PM_{2.5}$	126.72
SO_2	0.04
NO_x	6.57
VOC	76.14
CO	11.01
Single HAP	8.88 Caprolactam
Total HAP	9.39

HAPs	**tons/year**
Caprolactam	8.88
Styrene	0.39
Manganese	0.007
Hexane	0.118
Total	**9.39**

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

(a) The potential to emit (as defined in 326 IAC 2-7-1(30)) of PM10 and PM2.5 is equal to or greater than 100 tons per year. However, the Permittee has agreed to limit the source's PM10 and PM2.5 emissions to less than Title V levels, therefore the Permittee will be issued a FESOP Renewal.

(b) The potential to emit (as defined in 326 IAC 2-7-1(30)) of all other criteria pollutants are less than 100 tons per year.

(c) The potential to emit (as defined in 326 IAC 2-7-1(30)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(30)) of a combination of HAPs is less than twenty-five (25) tons per year.

(d) On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking).

A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

Potential to Emit After Issuance

The source has opted to remain a FESOP source. The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered 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 Renewal (tons/year)								
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	Total HAPs	Worst Single HAP
Raw Material Loading, Unloading & Storage (S-25a & b) (1)	135.77	12.03	12.03	0.0	0.0	0.0	0.0	0.0	0.0
Blenders	45.99	23.00	23.00	0.0	0.0	0.0	0.0	0.0	0.0
Extruders	16.00	16.00	16.00	0.0	0.006	74.44	5.49	9.25	8.86 caprolactam
Molding Machines	0.02	0.02	0.02	0.0	0.000	0.026	0.006	0.011	0.010 caprolactam
Final Product Convey & Storage	15.46	15.46	15.46	0.0	0.0	0.0	0.0	0.0	0.0
Final Product Packaging & Loadout	15.46	15.46	15.46	0.0	0.0	0.0	0.0	0.0	0.0
Final Product Switchover	1.55	1.55	1.55	0.0	0.0	0.0	0.0	0.0	0.0
NG Combustion	0.12	0.50	0.50	0.04	6.56	0.36	5.51	0.12	0.118 hexane
Glass Bead Blaster	8.21	5.75	5.75	0.0	0.0	0.0	0.0	0.0	0.0
Maint Parts Washer	0.0	0.0	0.0	0.0	0.0	1.22	0.0	0.0	0.0
Misc. Lab instruments and testing	0.38	0.38	0.38	0.0	0.0	0.0	0.0	0.0	0.0
Aerosol Can Crusher	0.0	0.0	0.0	0.0	0.0	0.10	0.0	0.0	0.0
Welding	0.21	0.21	0.21	0.0	0.0	0.0	0.0	0.007	0.007 manganese
East Cooling Tower	0.26	0.26	0.26	0.0	0.0	0.0	0.0	0.0	0.0
Total PTE of Entire Source	**239.43**	**90.61**	**90.61**	**0.04**	**6.57**	**76.14**	**11.01**	**9.39**	**8.88 caprolactam**
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	NA	NA

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)								
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	Total HAPs	Worst Single HAP
negl. = negligible * Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a "regulated air pollutant". **$PM_{2.5}$ listed is direct $PM_{2.5}$. (1) PM_{10} and $PM_{2.5}$ FESOP limits, all others are unlimited PTE.									

(a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no PSD regulated pollutant is emitted at a rate of two hundred fifty (250) tons per year or more and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) These emissions are based upon Appendix A of this Technical Source Document.

(c) This existing source is not a major source of HAPs, as defined in 40 CFR 63.2, because HAPs emissions are 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, this source is an area source under Section 112 of the Clean Air Act (CAA).

Federal Rule Applicability

CAM

(a) 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.

NSPS

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

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.

State Rule Applicability - Entire Source

326 IAC 1-5-2 (Emergency Reduction Plans)
The source is subject to 326 IAC 1-5-2.

326 IAC 1-6-3 (Preventive Maintenance Plan)
The source is subject to 326 IAC 1-6-3.

326 IAC 1-7 (Stack Height Provisions).
The source is subject to 326 IAC 1-7.

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.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The unlimited potential to emit of HAPs from each emission 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

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.

326 IAC 2-8-4 (FESOP)
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). Please see the Entire Source after Issuance table above.

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

(1) The combined PM10 emissions from the raw material handling and storage, which include the rail loadout system, truck loadout system and all tanks, controlled by Filters DC-25a and DC-25b, and exhausting to stacks S-25a and S-25b shall not exceed 2.74 lbs/hr.

(2) The combined PM2.5 emissions from the raw material handling and storage, which include the rail loadout system, truck loadout system and all tanks, controlled by Filters DC-25a and DC-25b, and exhausting to stacks S-25a and S-25b shall not exceed 2.74 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.

May it be noted that this source is able to comply with the above limits by using control devices (See the Appendix A calculation.)

2012:
The raw material handling and storage operations maximum throughput was determined to be equal to the maximum throughput of the extruders. Pursuant to AA 163-32133-00104, issued August 16, 2012, three (3) extruders were removed from service which lowered the total maximum throughput for both the extruders and material handling/storage operations. The FESOP PM10/PM2.5 limits equaled the controlled PTE based on 75% control efficiency. Therefore, with the removal of the extruders, the limit was lowered from 3.97 pounds per hour to 3.95 pounds per hour.

2016:
With this renewal, the FESOP PM10/PM2.5 limits for the material handling and storage operations have changed. The source has reported that several of the extruder maximum capacities were incorrectly stated for the first permit. As well, the source has verified the extruders and blenders make up production lines (along with several dedicated feeders) and the maximum line capacity equals the corresponding extruder capacity. With these updates, the new maximum capacity used for the raw material handling and storage operations has been updated to match. Also, the source has confirmed that the raw material silos that store the raw pellets are controlled by dust collectors at a control efficiency of 75%. The calculation spreadsheet has been updated. Therefore, the FESOP PM10/PM2.5 limits have changed from 3.95 pounds per hour to 2.74 pounds per hour.

326 IAC 5-1 (Opacity Limitations)
This source is subject to the opacity limitations specified in 326 IAC 5-1-2(2).

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Each of the units at the source is subject to 326 IAC 6.5. Therefore, pursuant to 326 IAC 6-3-1(c)(3), each unit is exempt from the requirements of 326 IAC 6-3, because they are otherwise subject to the more stringent particulate limit established in 326 IAC 6.5.

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.

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 are less than 25 tons per year.

State Rule Applicability – Individual Facilities

Raw Material Handling Operations

(a) 326 IAC 6.5-1-2 (Particulate Emission Limitations)
Pursuant to 326 IAC 6.5-1-2(a) (Particulate Emission Limitations), the allowable PM emission rate from each of the raw materials handling, bulk rail loading system, bulk truck loading system and storages shall not exceed three-hundredths (0.03) grain per dry standard cubic foot.

The dust collector filters DC-25a and DC-25b shall be in operation at all times that the raw materials handling, bulk rail loading system, bulk truck loading system and storages that they control are in operation, in order to comply with this limit.

Previous permits have listed limitations on these operations pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes). This rule is not applicable because the source is located in Vanderburgh County and has potential PM emissions greater than 100 tons per year, and actual emissions greater than 10 tons per year and is therefore subject to 326 IAC 6.5 (Particulate Matter Limitations except Lake County). The 326 IAC 6.5 limitations will be updated with this renewal.

(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 6.5-1-2 (Particulate Emission Limitations)
Pursuant to 326 IAC 6.5-1-2(a) (Particulate Emission Limitations), the allowable PM emission rate from each of the seven (7) Extruding Lines and four (4) molding machines listed on the following table shall not exceed three-hundredths (0.03) grain per dry standard cubic foot.

Emission Unit	control device
Extruder Line 6	dust collector CDC-01
Extruder Line 7	dust collector CDC-01
Extruder Line 33	dust collector DC-113
Extruder Line 34	dust collector CDC-01
Extruder Line 35	dust collector DC-114
Extruder Line 36	dust collector CDC-01
Extruder Line 39	dust collector DC-16
Molding Machine MM14	no control
Molding Machine MM10	no control
Molding Machine MM12	no control
Molding Machine MM13	no control

The dust collectors for the extruder lines shall be in operation at all times that the extruder lines that they control are in operation, in order to comply with this limit.

Previous permits have listed limitations on the Extruder Lines (previously listed as separate extruders and blenders) pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes). This rule is not applicable because the source is located in Vanderburgh County and has potential PM emissions greater than 100 tons per year and is therefore subject to 326 IAC 6.5 (Particulate Matter Limitations except Lake County). The molding machines were not previously listed as applicable to 326 IAC 6-3-2. The 326 IAC 6.5 limitations will be updated with this renewal.

(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.

Parts Washer Operation

(a) 326-IAC 6.5-1-2 (Particulate Emission Limitations)
The maintenance part washer (CC1) does not emit any particulate emissions and therefore is not subject to this rule.

(b) 326 IAC 8-3-2 (Cold Cleaner Operations)
The one (1) maintenance parts washer is subject to the requirements of 326 IAC 8-3-2 (Cold Cleaner Operations) since it was considered a cold cleaner degreaser without remote solvent reservoirs, constructed after July 1, 1990.

Pursuant to 326 IAC 8-3-2(a) (Cold Cleaner Degreaser Control Equipment and Operating Requirements), for cold cleaning degreasers without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall:

(1) Equip the cleaner with a cover;

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

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

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

(5) Provide a permanent, conspicuous label that lists the operating requirements in (3), (4), (6), and (7) subparts of this condition;

(6) Store waste solvent only in covered containers;

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

Pursuant to 326 IAC 8-3-2(b) (Cold Cleaner Degreaser Control Equipment and Operating Requirements), for cold cleaning degreasers without remote solvent reservoirs constructed after July 1, 1990:

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

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

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

(C) A refrigerated chiller.

(D) Carbon adsorption.

(E) An alternative system of demonstrated equivalent or better control as those outlined in (b)(1)(A) through (D) of this condition that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

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

(3) If used, solvent spray:

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

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

This is an existing requirement. Pursuant to AA 163-35838-00104, issued June 12, 2015, the permit was updated with the current rule language for 326 IAC 8-3-2(a) and new language for 326 IAC 8-3-2(b).

(c) 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers)
On and after January 1, 2015, the Permittee shall not operate a cold cleaner degreaser with a solvent that has a VOC composite partial vapor pressure than exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

The Permittee shall maintain the following records for each purchase of solvent used in the cold cleaner degreasing operations. These records shall be retained on site or accessible electronically for the most recent three (3) year period and shall be reasonably accessible for the additional two (2) year period.

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

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

(3) The type of solvent purchased.

(4) The total volume of the solvent purchased.

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

This is an existing requirement that was added to the permit, pursuant to AA 163-35838-00104, issued June 12, 2015.

<u>Abrasive Blasting Unit, Cooling Tower, Aerosol Crusher</u>

(a) 326 IAC 6.5-1-2 (Particulate Emission Limitations)
Pursuant to 326 IAC 6.5-1-2(a) (Particulate Emission Limitations), the allowable PM emission rate from the abrasive blasting unit (ABU1) and east cooling tower (ECT) each shall not exceed three-hundredths (0.03) grain per dry standard cubic foot. The aerosol can crushing unit (ACC1) does not emit any particulate emissions and is therefore no subject to this rule.

The dust collector CDC-01 shall be in operation at all times that the abrasive blasting unit that it controls is in operation, in order to comply with this limit.

This is a new requirement.

(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 6.5-1-2 (Particulate Emission Limitations)
Pursuant to 326 IAC 6.5-1-2(a) (Particulate Emission Limitations), the allowable PM emission rate from each of the final product handling packaging systems, storage silos and bulk truck loadout shall not exceed three-hundredths (0.03) grain per dry standard cubic foot.

The dust collectors CDC-01 and DC-14 shall be in operation at all times that the final product handling storage that they control are in operation, in order to comply with this limit.

This is a new requirement.

(b) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
There are no unlimited VOC potential emissions from each product handling and storage. Therefore, the requirements of 326 IAC 8-1-6 do not apply.

Natural Gas Combustion Units, Mold Shop Dryer and Beranger Burn-Off Oven (R&D)

(a) 326 IAC 6-2-1 (Particulate Emission Limitations for Sources of Indirect Heating)
The natural gas-fired combustion units, the mold shop dryer and the burn-off oven are not subject to 326 IAC 6-2-1, since they are not sources of indirect heating.

(b) 326 IAC 6.5-1-2 (Particulate Emission Limitations)
Pursuant to 326 IAC 6.5-1-2(a) (Particulate Emission Limitations), the allowable PM emission rate from each of the natural gas-fired combustion units and the mold shop dryer shall not exceed three-hundredths (0.03) grain per dry standard cubic foot.

This is a new requirement.

The Beranger burn-off oven is not subject to 326 IAC 6.5-1-2 because it is subject to 326 IAC 4-2-2 (Incinerators).

(c) 326 IAC 4-2-2 (Incinerators)
The natural gas-fired Beranger burn-off oven is subject to the requirements of 326 IAC 4-2-2 because it meets the definition of an incinerator as defined in 326 IAC 1-2-34 and is not subject to any of the rules identified in 326 IAC 4-2-1(b)(2). The burn-off oven is subject to 326 IAC 4-2-2(a)(5) since it is not subject to a more stringent particulate matter emission limit in 40 CFR 52 Subpart P*, State Implementation Plan for Indiana.

Pursuant to 326 IAC 4-2-2, the one (1) Beranger burn-off oven shall comply with the following requirements:

(a) All incinerators shall comply with the following requirements:

(1) Consist of primary and secondary chambers or the equivalent.

(2) Be equipped with a primary burner unless burning only wood products.

(3) Comply with 326 IAC 5-1 and 326 IAC 2.

(4) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in subsection 326 IAC 4-2-2(c).

(5) Not emit particulate matter in excess of one (1) of the following:

(A) Three-tenths (0.3) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with a maximum solid waste capacity of greater than or equal to two hundred (200) pounds per hour.

(B) Five-tenths (0.5) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with solid waste capacity less than two hundred (200) pounds per hour.

(6) If any of the requirements of subdivisions (1) through (5) are not met, then the owner or operator shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

(b) An owner or operator developing an operation and maintenance plan pursuant to subsection (a)(4) must comply with the following:

(1) The operation and maintenance plan must be designed to meet the particulate matter emission limitation specified in subsection (a)(5) and include the following:

(A) Procedures for receiving, handling, and charging waste.
(B) Procedures for incinerator startup and shutdown.
(C) Procedures for responding to a malfunction.
(D) Procedures for maintaining proper combustion air supply levels.
(E) Procedures for operating the incinerator and associated air pollution control systems.
(F) Procedures for handling ash.
(G) A list of wastes that can be burned in the incinerator.

(2) Each incinerator operator shall review the plan before initial implementation of the operation and maintenance plan and annually thereafter.

(3) The operation and maintenance plan must be readily accessible to incinerator operators.

(4) The owner or operator of the incinerator shall notify the department, in writing, thirty (30) days after the operation and maintenance plan is initially developed pursuant to this section.

(c) The owner or operator of the incinerator must make the manufacturer's specifications or the operation and maintenance plan available to the department upon request.

This is a new requirement.

(d) 326 IAC 9-1-2 Carbon Monoxide Emission Limits
The natural gas-fired Beranger burn-off oven is not subject to the requirements of 326 IAC 9-1-2 because it is assumed to have only particulate emissions and, therefore, is not a source of carbon monoxide emissions.

Insignificant Lab Testing Instruments and Welding Booth

326 IAC 6.5-1-2 (Particulate Emission Limitations)
Pursuant to 326 IAC 6.5-1-2(a) (Particulate Emission Limitations), the allowable PM emission rate from the Lab Testing Instruments (UL, Ash and Moisture) and the welding booth each shall not exceed three-hundredths (0.03) grain per dry standard cubic foot.

This is a new requirement.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

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

(a) The testing requirements applicable to this source are as follows:

Testing Requirements				
Emission Unit	**Control Device**	**Pollutant**	**Timeframe for Testing**	**Frequency of Testing**
Extruder EX6	NA	VOC	180 days after F163-37397-00104 renewal issuance	One time
Extruder EX6	NA	HAP (Caprolactam)	180 days after F163-37397-00104 renewal issuance	One time

This testing is necessary to verify compliance with 326 IAC 2-8-4 and to ensure the requirements of 326 IAC 2-4.1 are not applicable. The source must perform this testing to verify the uncontrolled VOC emission factor and single HAP (Caprolactam) emission factor, for the Extruder EX6. Testing is only one-time because emissions are uncontrolled. This is a new requirement in this renewal.

(b) There are no testing requirements applicable to this source for PM10 and PM2.5 on the raw material loading, unloading and storage. The source estimates an overall control efficiency of 98% for the Filter DC-25a and DC-25b controlling these units. However, the PM10 and PM2.5 emission limits were specified such that the source is required to achieve an overall control efficiency of 75%. Therefore, compliance with these limits is anticipated.

(c) There is no testing requirement applicable to dust collector CDC-01 because no FESOP or PSD minor limits were specified.

(d) The compliance monitoring requirements applicable to this source are as follows:

Control ID	Control Units	Emission Units	Stack ID	Operating Parameters	Frequency
DC-25a	Dust filter	raw material rail and truck loading systems and storage silos T0105, T0106, T0107, T0108	25a	Visible Emissions (a)	Record once per day when units are in operation
DC-25b	Dust filter	raw material rail and truck	25b	Visible	Record once

Control ID	Control Units	Emission Units	Stack ID	Operating Parameters	Frequency
		loading systems and storage silos T0105, T0106, T0107, T0108		Emissions (a)	per day when units are in operation
CDC-01	Dust collector	Extruder Lines 6, 7, 34, 36	S-01 (internal)	Water Pressure Drop (range 1.0-6.0 inches) (b)	Record once per day when units are in operation
(a) These are existing requirements. (b) This is a new requirement.					

These monitoring conditions are necessary because the dust filters (DC-25a and DC-25b) for the raw material rail and truck loading and storage silos and the dust collector (CDC-01) for the Extruder lines to ensure compliance with 326 IAC 6.5-1-2 (Particulate Emission Limitations) and 326 IAC 2-8 (FESOP).

(e) Compliance monitoring for the extruder lines listed below are not necessary since the total PM emissions for each is less than 25 tons per year:

unit ID	control device (dust collector)
Extruder Line 35	DC-114/Stack S-11
Extruder Line 33	DC-113/Stack S-08
Extruder Line 39	DC-16/Stack S-16

Recommendation

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

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on Jul 12, 2016.

Conclusion

The operation of this stationary plastic pellet and molding manufacturing source shall be subject to the conditions of the attached FESOP Renewal No. F163-37397-00104.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Jean Fix 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) 234-8531 or toll free at 1-800-451-6027 extension 4-8531.

(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 Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

Appendix A: Emission Calculations
Summary

Company Name: DSM Engineering Plastics America
Source Address: 2267 W. Mill Rd, Evansville, IN 47720
Permit Number: 163-37397-00104
Reviewer: Jean Fix

Uncontrolled PTE Emissions Summary (tons/yr)

	Pollutants							Hazardous Air Pollutants		
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	Worst Single HAP		Total HAPs
								Caprolactam	Styrene	
Emissions Process/Units										
Raw Material Loading, Unloading & Storage (S-25a&b)	135.77	48.14	48.14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Blenders	45.99	23.00	23.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extruders	16.00	16.00	16.00	0.0	0.006	74.44	5.49	8.86	0.39	9.25
Molding Machines	0.02	0.02	0.02	0.0	0.000	0.026	0.006	0.010	0.0004	0.011
Final Product Convey & Storage	15.46	15.46	15.46	0.0	0.0	0.00	0.0	0.0	0.0	0.0
Final Product Packaging & Loadout	15.46	15.46	15.46	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final Product Switchover	1.55	1.55	1.55	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NG Combustion	0.12	0.50	0.50	0.04	6.56	0.36	5.51	0.0	0.0	0.12
Glass Bead Blaster	8.21	5.75	5.75	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maint Parts Washer	0.0	0.0	0.0	0.0	0.0	1.22	0.0	0.0	0.0	0.0
Misc. Lab instruments and testing	0.38	0.38	0.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aerosol Can Crusher	0.0	0.0	0.0	0.0	0.0	0.10	0.0	0.0	0.0	0.0
Welding	0.21	0.21	0.21	0.0	0.0	0.0	0.0	0.0	0.0	0.007
East Cooling Tower	0.26	0.26	0.26	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	239.43	**126.72**	**126.72**	**0.04**	**6.57**	**76.14**	**11.01**	**8.88**	**0.39**	**9.39**

PTE Emissions Summary after Issuance (tons/yr)

	Pollutants							Hazardous Air Pollutants		
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	Worst Single HAP		Total HAPs
								Caprolactam	Styrene	
Emissions Process/Units										
Raw Material Loading, Unloading & Storage (S-25a&b) [(1)]	135.77	12.03	12.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Blenders	45.99	23.00	23.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extruders	16.00	16.00	16.00	0.0	0.006	74.44	5.49	8.86	0.39	9.25
Molding Machines	0.02	0.02	0.02	0.0	0.000	0.026	0.006	0.010	0.0004	0.011
Final Product Convey & Storage	15.46	15.46	15.46	0.0	0.0	0.00	0.0	0.0	0.0	0.0
Final Product Packaging & Loadout	15.46	15.46	15.46	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final Product Switchover	1.55	1.55	1.55	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NG Combustion	0.12	0.50	0.50	0.04	6.56	0.36	5.51	0.0	0.0	0.12
Glass Bead Blaster	8.21	5.75	5.75	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maint Parts Washer	0.0	0.0	0.0	0.0	0.0	1.22	0.0	0.0	0.0	0.0
Misc. Lab instruments and testing	0.38	0.38	0.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aerosol Can Crusher	0.0	0.0	0.0	0.0	0.0	0.10	0.0	0.0	0.0	0.0
Welding	0.21	0.21	0.21	0.0	0.0	0.0	0.0	0.0	0.0	0.007
East Cooling Tower	0.26	0.26	0.26	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	239.43	**90.61**	**90.61**	**0.04**	**6.57**	**76.14**	**11.01**	**8.88**	**0.39**	**9.39**

Note: Assumption PM10 = PM2.5
[(1)] PM10/PM2.5 FESOP limits

Appendix A: Emission Calculations
Raw Material Loading, Unloading and Storages

Company Name: DSM Engineering Plastics America
Source Address: 2267 W. Mill Rd, Evansville, IN 47720
Permit Number: 163-37397-00104
Reviewer: Jean Fix

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	**17.65**										
Powder Loading & Conveying	4.79	41,987	0.61	0.61	2.92	12.81	2.92	12.81	75.00%	3.20	3.20
Powder Storage[1]	4.79	41,987	0.61	0.61	2.92	12.81	2.92	12.81	75.00%	3.20	3.20
Fiberglass Loading & Conveying	7.15	62,595	3.0	0.2	21.44	93.89	1.43	6.26	75.00%	23.47	1.56
Fiberglass Storage[1]	7.15	62,595	0.2	0.2	1.43	6.26	1.43	6.26	75.00%	1.56	1.56
Pellet Loading & Conveying	5.71	50,032	0.2	0.2	1.14	5.00	1.14	5.00	75.00%	1.25	1.25
Pellet Storage[2]	5.71	50,032	0.2	0.2	1.14	5.00	1.14	5.00	75.00%	1.25	1.25
Totals (tons/year)	17.65				31.00	**135.77**		**48.14**		**33.94**	**12.03**

Note:
[1] Powder and fiberglass arrived in bags or sacks and stored there until feeding into hoppers where they can be fed to the blenders
[2] 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)

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 Operations

Company Name: DSM Engineering Plastics America
Source Address: 2267 W. Mill Rd, Evansville, IN 47720
Permit Number: 163-37397-00104
Reviewer: Jean Fix

			Uncontrolled PTE												Uncontrolled Hazardous Air Pollutants (HAPs)						
Emission Unit	Maximum Throughput (lb/hr)	Maximum Throughput (ton/hr)	Maximum Throughput (ton/yr)	EF PM / PM10 / PM2.5 (lb/ton)	PTE PM / PM10 / PM2.5 (lb/hr)	PTE PM / PM10 / PM2.5 (ton/yr)	Emission Factor CO (lb/ton)	PTE CO (lb/hr)	PTE CO (ton/yr)	Emission Factor NOx (lb/ton)	PTE NOx (lb/hr)	PTE NOx (ton/yr)	Emission Factor 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																							
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 36	6,000	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 35	6,000	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 33	1,000	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	6,000	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 6*	6,000	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	2.39	10.48	0.131	0.28	1.25	5.7E-03	1.2E-02	0.05	1.30
Extruder 7*	10,000	5.00	43,800	0.207	1.04	4.53	0.071	0.36	1.55	8.00E-05	4.00E-04	1.8E-03	1.1	3.99	17.47	0.131	0.47	2.08	5.7E-03	2.1E-02	0.09	2.17
Totals	35,300	**17.65**				**16.00**			**5.49**			**6.2E-03**			**74.44**			**8.86**			**0.39**	**9.25**

Methodology:

Emission factors taken from the following technical paper, "Development of Emission Factors for Polyamide Processing", *Journal of the Air and Waste Management Association,* Kriek, 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 Numbers 7A & 7B were not used because DSM doesn't use Dechlorane as a fire retardant.

PM10 & VOC emission factor taken from the following fact sheet, "Plastic Production and Products Manufacturing Emission Calculation Fact Sheet #9847 (Rev. 11/2005), Michigan DEQ (now MDNRE), environmental Science and Services Division, November 2005.

* Processes use only filled nylon resin. Maximum throughput = resin + filler. VOC and HAPs emissions based on nylon resin content only. Raw material inorganic and fiber filler content 27.5%

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
Feeder, Blending and Mixing Operations

Company Name: DSM Engineering Plastics America
Source Address: 2267 W. Mill Rd, Evansville, IN 47720
Permit Number: 163-37397-00104
Reviewer: Jean Fix

Emission Unit	PTE Throughput (lb/hr)	PTE Throughput (ton/hr)	PTE Throughput (ton/yr)	Uncontrolled PM EF (lb/ton)	Uncontrolled 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 % for PM / PM10/PM2.5	Controlled PM (lb/hr)	Controlled PM (ton/yr)	Controlled PM10/PM2.5 (lb/hr)	Controlled PM10/PM2.5 (ton/yr)
Blender 036	6000	3.00	26280	0.6	0.3	**1.80**	7.88	**0.90**	3.94	98%	0.04	0.16	0.02	0.08
Blender 035	6000	3.00	26280	0.6	0.3	**1.80**	7.88	**0.90**	3.94	98%	0.04	0.16	0.02	0.08
Blender 33	1000	0.50	4380	0.6	0.3	**0.30**	1.31	**0.15**	0.66	98%	0.01	0.03	0.00	0.01
Blender 034	6000	3.00	26280	0.6	0.3	**1.80**	7.88	**0.90**	3.94	98%	0.04	0.16	0.02	0.08
Blender 06	6000	3.00	26280	0.6	0.3	**1.80**	7.88	**0.90**	3.94	98%	0.04	0.16	0.02	0.08
Blender 07	10,000	5.00	43800	0.6	0.3	**3.00**	13.14	**1.50**	6.57	98%	0.06	0.26	0.03	0.13
Totals		**17.50**					**45.99**		**23.00**			**0.92**		**0.46**

Each “blender” consists of multiple dedicated feeders that input specific raw materials into a blender (the feeder can also feed directly into the corresponding extruder) and together these make up one feeder/blending system.

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 47720
Permit Number: 163-37397-00104
Reviewer: Jean Fix

Emission Unit	Maximum Throughput (ton/hr)	Maximum Throughput (ton/yr)	PM / PM10 / PM2.5 EF (lb/ton)	Uncontrolled PM / PM10 / PM2.5 (lb/hr)	Uncontrolled PM / PM10 / PM2.5 (ton/yr)	Emission Factor CO (lb/ton)	CO (lb/hr)	CO (ton/yr)	Emission Factor Nox (lb/ton)	NOx (lb/hr)	NOx (ton/yr)	Emission Factor VOC (lb/ton)**	VOC (lb/hr)	VOC (ton/yr)
R & D Molding of Polyamide/Nylon Compounds PTE														
MM10	0.002	21.0	0.207	0.0005	0.002	0.071	0.0002	0.0007	0.0001	0.0000	0.0000	0.3290	0.0008	0.0035
MM12	0.002	21.0	0.207	0.0005	0.002	0.071	0.0002	0.0007	0.0001	0.0000	0.0000	0.3290	0.0008	0.0035
MM13	0.006	52.6	0.207	0.0012	0.005	0.071	0.0004	0.0019	0.0001	0.0000	0.0000	0.3290	0.0020	0.0086
MM14	0.007	63.1	0.207	0.0015	0.007	0.071	0.0005	0.0022	0.0001	0.0000	0.0000	0.3290	0.0024	0.0104
Totals	**0.018**				**0.016**			**0.006**			**0.00001**			**0.026**

Hazardous Air Pollutants (HAPs)						
Caprolactam Emission Factor (lb/ton)	**Caprolactam (lb/hr)**	**Caprolactam (ton/yr)**	**Styrene Emission Factor (lb/ton)**	**Styrene (lb/hr)**	**Styrene (ton/yr)**	**Total HAPs (ton/yr)**
0.131	0.0003	0.0014	0.0057	0.0000	0.0001	0.0014
0.131	0.0003	0.0014	0.0057	0.0000	0.0001	0.0014
0.131	0.0008	0.0034	0.0057	0.0000	0.0001	0.0036
0.131	0.0009	0.0041	0.0057	0.0000	0.0002	0.0043
		0.01			**0.0004**	**0.0108**

Methodology:
Emission factors taken from the following technical paper, "Development of Emission Factors for Polyamide Processing", *Journal of the Air and Waste Management Association,* Kriek, 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 Numbers 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 MDNRE), 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 (ABU1) PTE

Company Name: DSM Engineering Plastics America
Source Address: 2267 W. Mill Rd, Evansville, IN 47720
Permit Number: 163-37397-00104
Reviewer: Jean Fix

Table 1 - Emission Factors for Abrasives

	Emission Factor	
Abrasive	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	0.70

Table 2 - Density of Abrasives (lb/ft3)

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

* Emission Factor lb PM10 / lb PM is based on 2014 actual emissions received from source application, pursuant to AA 163-35838-00104, issued June 12, 2015

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

	Nozzle Pressure (psig)							
Internal diameter, in	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 =	135
D = Density of abrasive (lb/ft3) From Table 2 =	99
D1 = Density of sand (lb/ft3) =	99
ID = Actual nozzle internal diameter (in) =	0.15625
ID1 = Nozzle internal diameter (in) from Table 3 =	0.1875

Flow Rate (FR) (lb/hr) = **93.750** per nozzle

Uncontrolled Emissions (E, lb/hr)

EF = emission factor (lb PM/ lb abrasive) From Table 1 =	0.010
FR = Flow Rate (lb/hr) =	93.750
w = fraction of time of wet blasting =	0 %
N = number of nozzles =	2

			PM10
Uncontrolled PM Emissions =	**1.88**	**lb/hr**	**1.31**
	8.21	**ton/yr**	**5.75**
Controlled PM Emissions =	**0.038**	**lb/hr**	**0.026**
assumes 98% control efficiency	**0.164**	**ton/yr**	**0.115**

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 (CC1)

Company Name: DSM Engineering Plastics America
Source Address: 2267 W. Mill Rd, Evansville, IN 47720
Permit Number: 163-37397-00104
Reviewer: Jean Fix

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)
CC1	Oscillating Cold Solvent Washer	Safety Kleen Premium Solvent	Naphtha Petroleum	1	1.0	1	6.66	0.28	6.66	1.22
			Totals:	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
East Cooling Tower

Company Name: **DSM Engineering Plastics America**
Source Address: **2267 W. Mill Rd, Evansville, IN 47720**
Permit Number: **163-37397-00104**
Reviewer: **Jean Fix**

Process Parameters:

Circulation Flow Rate:	60,000	gal/hr	(1000 gpm East Cooling Tower)
[1]Total Drift:	0.005%	of the circulating flow	
[1]Maximum Total Dissolved Solids:	2,400	ppm*	*Average Total Dissolved Solids from AP-42
Density:	8.345	lbs/gal	

[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) = 60,000 gal/hr x 0.005% x 8.345 lbs/gal x 2,400 ppm x 1/1,000,000 ppm = 0.06 lbs/hr

PTE of PM/PM10/PM2.5 (tons/yr) = 0.11 lbs/hr x 8760 hr/yr x 1 ton/2000 lbs = **0.26 tons/yr**

Cooling Tower will not use VOC or HAP containing chemicals.

Appendix A: Emission Calculations

Aerosol Can Crusher (ACC1)

Company Name: **DSM Engineering Plastics America**
Source Address: **2267 W. Mill Rd, Evansville, IN 47720**
Permit Number: **163-37397-00104**
Reviewer: **Jean Fix**

Unit ID	Unit Description	Throughput	Can VOC Content*	VOC Emissions	VOC Emissions
		(Cans/year)	(lb/can)	(lb/year)	(tons/yr)
ACC1	Aerosol Can Crusher	800.0	0.25	200.00	0.10
			Totals:	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

Appendix A: Emission Calculations

Conveying and Storage of Final Product PTE

Company Name: DSM Engineering Plastics America
Source Address: 2267 W. Mill Rd, Evansville, IN 47720
Permit Number: 163-37397-00104
Reviewer: Jean Fix

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	17.65	154,614	0.2	3.53	15.46

Note: The above throughtput 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 17.65 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.

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
Packaging and Loadout of Final Product PTE

Company Name: DSM Engineering Plastics America
Source Address: 2267 W. Mill Rd, Evansville, IN 47720
Permit Number: 163-37397-00104
Reviewer: Jean Fix

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	17.65	154,614	0.2	3.53	15.46

Methodology:

As per the Extrusion PTE, the maximum potential throughput of raw materials would be equal to the Extrusion maximum capacity, which equals 17.65 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 47720
Permit Number: 163-37397-00104
Reviewer: Jean Fix

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	1.77	15,461	0.2	0.35	1.55

Methodology:

As per the Extrusion PTE, the maximum potential throughput equals 17.65 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.

Appendix A: Emission Calculations

QA/QC Testing, Burn Off Ovens

Company Name: DSM Engineering Plastics America
Source Address: 2267 W. Mill Rd, Evansville, IN 47720
Permit Number: 163-37397-00104
Reviewer: Jean Fix

Unit ID	Max Throughput Methodology	Max Throughput (lb/yr)	Max Loss %	PM / PM10 / PM2.5 * (lb/yr)	PM / PM10 / PM2.5 (tons/yr)
Mold Shop Tray Dryers	40 trays, 5 lbs. per tray, once every 24 hours	73,000	0.20%	146	0.073
UL Testing	3 lbs. per day	1,095	25.00%	273.75	0.136875
Ash Testing	.0022 lbs. per run, 144 runs a day	116	65.00%	75.4	0.0377
Moisture Analysis	.0033 lbs. per run, 144 runs a day	173	0.20%	0.346	0.000173
Beranger Burn Off Oven		400	65.00%	260	0.13
			Totals:	755.50	0.38

Methodology:
Max throughput methodology supplied by source
* 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) * materials loss (%)

Appendix A: Emission Calculations

Maintenance Welding

Company Name: DSM Engineering Plastics America
Source Address: 2267 W. Mill Rd, Evansville, IN 47720
Permit Number: 163-37397-00104
Reviewer: Jean Fix

				EMISSION FACTORS (lb pollutant/lb electrode)					EMISSIONS (lb/hr)					
PROCESS	**# of Booths**	**Max. Electrode Consumption per Station (lb/hr)**		**PM / PM10 / PM2.5**	**Mn**	**Ni**	**Co**	**Cr**	**PM / PM10 / PM2.5**	**Mn**	**Ni**	**Co**	**Cr**	**HAPs**
WELDING														
Submerged Arc	0	0.00		0.036	0.011	0	0	0	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Metal Inert Gas (MIG) Carbon Steel E70S	**1**	**1.70**		**0.0052**	**0.000318**	**0.000001**	**0.000001**	**0.000001**	**0.00884**	**0.00054**	**0.00000**	**0.00000**	**0.00000**	**0.00055**
Stick (E6011)	**1**	**1.00**		**0.0384**	**0.000998**	**0.000005**	**0.000001**	**0.000005**	**0.03840**	**0.00100**	**0.00001**	**0.00000**	**0.00001**	**0.00101**
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)**										
FLAME CUTTING														
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
EMISSION TOTALS									**0.04724**	**0.00154**	**0.00001**	**0.00000**	**0.00001**	**0.00155**

	PM/PM10 (tpy)	Mn (tpy)	Ni (tpy)	Co (tpy)	Cr (tpy)	HAPs (tpy)
Potential To Emit (PTE)	**0.207**	**0.007**	**0.000**	**0.000**	**0.000**	**0.007**

One (1) welding booth, consisting of four (4) welding stations, designed for only one welder at a time, two welding options.

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: Emission Calculations
Natural Gas Combustion

Company Name: DSM Engineering Plastics America
Source Address: 2267 W. Mill Rd, Evansville, IN 47720
Permit Number: 163-37397-00104
Reviewer: Jean Fix

Unit	*MMBTU/hr*
UH5	0.08
UH8	0.08
UH9	0.08
UH10	0.08
UH11	0.08
UH12	0.08
UH13	0.08
UH14	0.2
UH15	0.2
UH16	0.2
UH17	0.2
UH19	0.24
UH20	0.24
UH21	0.24
UH21	0.06
UH24	0.06
UH23	0.0615
MUAU2	0.825
MUAU5	0.825
MUAU7	0.825
MUAU8	0.825
MUAU9	0.825
MUAU10	0.825
MUAU1	1.02400
MUAU3	1.66400
MUAU6	2.333
MUAU4	2.2
PAC9R	0.12
PAC10R	0.1792
PAC11R	0.144
PAC12R	0.092
ID	0.09315
PAC4G	0.1
PAC17R	0.125
Total	**15.29**

Heat Input total= **15.29** **mmBtu/hr**
Fuels: Natural Gas Only

Fuel Consumption:

Natural Gas - Heat content =	1020	Btu/cu ft
Maximum Fuel Feed Rate =	0.0150	cf/hr

AP-42 Emission Factors, Ch. 1.4, July 1998

Pollutant	Maximum rate (mmcf/hr)	Emission Factor (lb/mmcf)	Emission Rate (lb/hr)	Maximum Uncontrolled Emissions (tons/yr)
PM (filterable)	0.015	1.9	0.0285	**0.12**
PM10 / PM2.5 (filt + cond)	0.015	7.6	0.1139	**0.50**
SO_2	0.015	0.6	0.0090	**0.04**
NOx	0.015	100	1.4986	**6.56**
VOC	0.015	5.5	0.0824	**0.36**
CO	0.015	84	1.2588	**5.51**
Hazardous Air Pollutants				
Lead	0.015	5.00E-04	7.49E-06	3.28E-05
Beryllium	0.015	1.20E-05	1.80E-07	7.88E-07
Mercury	0.015	2.60E-04	3.90E-06	1.71E-05
Arsenic	0.015	2.00E-04	3.00E-06	1.31E-05
Chromium	0.015	1.40E-03	2.10E-05	9.19E-05
Cobalt	0.015	8.40E-05	1.26E-06	5.51E-06
Manganese	0.015	3.80E-04	5.69E-06	2.49E-05
Nickel	0.015	2.10E-03	3.15E-05	1.38E-04
Selenium	0.015	2.40E-05	3.60E-07	1.58E-06
2-Methylnaphthalene	0.015	2.40E-05	3.60E-07	1.58E-06
3-Methylchloroanthrene	0.015	1.80E-06	2.70E-08	1.18E-07
7,12-Dimethylbenz(a)anthracene	0.015	1.60E-05	2.40E-07	1.05E-06
Acenapthene	0.015	1.60E-06	2.40E-08	1.05E-07
Acenaphthylene	0.015	1.80E-06	2.70E-08	1.18E-07
Benzene	0.015	2.10E-03	3.15E-05	1.38E-04
Benzo(a)pyrene	0.015	1.20E-06	1.80E-08	7.88E-08
Benzo(b)fluoranthene	0.015	1.80E-06	2.70E-08	1.18E-07
Benzo(k)fluoranthene	0.015	1.80E-06	2.70E-08	1.18E-07
Chrysene	0.015	1.80E-06	2.70E-08	1.18E-07
Dibenzo(a,h)anthracene	0.015	1.20E-06	1.80E-08	7.88E-08
Dichlorobenzene	0.015	1.20E-03	1.80E-05	7.88E-05
Fluoranthene	0.015	3.00E-06	4.50E-08	1.97E-07
Fluorene	0.015	2.80E-06	4.20E-08	1.84E-07
Formaldehyde	0.015	7.50E-02	1.12E-03	4.92E-03
Hexane	0.015	**1.80E+00**	**2.70E-02**	**1.18E-01**
Indeno(1,2,3-cd)pyrene	0.015	1.80E-06	2.70E-08	1.18E-07
Naphthalene	0.015	6.10E-04	9.14E-06	4.00E-05
Phenanathrene	0.015	1.70E-05	2.55E-07	1.12E-06
Pyrene	0.015	5.00E-06	7.49E-08	3.28E-07
Toluene	0.015	3.40E-03	5.10E-05	2.23E-04
Total HAP			**2.83E-02**	**1.24E-01**

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on norma
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Indiana Department of Environmental Management
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

Mr. Chris Allen
Safety, Health, & Environmental Manager
DSM Engineering Plastics
2267 West Mill Road
Evansville, Indiana 47220

Re: Public Notice
DSM Engineering Plastics
Permit Level: FESOP - Renewal
Permit Number: 163-37397-00104

Dear Mr. Allen:

Enclosed is a copy of your draft FESOP - Renewal, Technical Support Document, emission calculations, and the Public Notice which will be printed in your local newspaper.

The Office of Air Quality (OAQ) has prepared two versions of the Public Notice Document. The abbreviated version will be published in the newspaper, and the more detailed version will be made available on the IDEM's website and provided to interested parties. Both versions are included for your reference. The OAQ has requested that the Evansville Courier in Evansville, Indiana publish the abbreviated version of the public notice no later than October 8, 2016. You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper.

OAQ has submitted the draft permit package to the Evansville Vanderburgh County Public Library, 200 SE Martin Luther King Blvd. in Evansville, Indiana. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Jean Fix, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 4-8531 or dial (317) 234-8531.

Sincerely,

Vicki Biddle

Vicki Biddle
Permits Branch
Office of Air Quality

Enclosures
PN Applicant Cover letter 2/17/2016

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Commissioner

ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING

October 5, 2016, 2016

Evansville Courier
P. O. Box 268
Evansville, Indiana 47702-0268

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for DSM Engineering Plastics, Vanderburgh County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than October 8, 2016.

Please send a notarized form, clippings showing the date of publication, and the billing to the Indiana Department of Environmental Management, Accounting, Room N1345, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

To ensure proper payment, please reference account # 100174737.

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Vicki Biddle at 800-451-6027 and ask for extension 3-6867 or dial 317-233-6867.

Sincerely,

Vicki Biddle

Vicki Biddle
Permit Branch
Office of Air Quality

Permit Level: FESOP - Renewal
Permit Number: 163-37397-00104

Enclosure

PN Newspaper.dot 2/17/2016

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Michael R. Pence
Governor

Carol S. Comer
Commissioner

October 5, 2016

To: Evansville Vanderburgh County Public Library

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

Subject: **Important Information to Display Regarding a Public Notice for an Air Permit**

Applicant Name: DSM Engineering Plastics
Permit Number: 163-37397-00104

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Request to publish the Notice of 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. **Please make this information readily available until you receive a copy of the final package.**

If you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures
PN Library.dot 2/16/2016

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(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

Notice of Public Comment

October 5, 2016
DSM Engineering Plastics
163-37397-00104

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has been placed in the Legal Advertising section of your local newspaper. The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana's Air Permitting Program.

Please Note: *If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.*

Enclosure
PN AAA Cover.dot 2/17/2016

Mail Code 61-53

IDEM Staff	VBIDDLE 10/4/2016 DSM Engineering Plastics 163-37397-00104 DRAFT		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	Type of Mail: **CERTIFICATE OF MAILING ONLY**

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		Chris Allen DSM Engineering Plastics 2267 W Mill Rd Evansville IN 47720 (Source CAATS)									
2		Randy McGowan Director of Operations DSM Engineering Plastics 2267 W Mill Rd Evansville IN 47720 *(RO CAATS)*									
3		David Boggs 216 Western Hills Dr Mt Vernon IN 47620 *(Affected Party)*									
4		John Blair 800 Adams Ave Evansville IN 47713 *(Affected Party)*									
5		Evansville City Council and Mayors Office 1NW MLK Blvd, Rm 302 Evansville IN 47708 *(Local Official)*									
6		Vanderburgh County Commissioners 1 NW MLK Blvd, Rm 305 Evansville IN 47708 *(Local Official)*									
7		Evansville Vanderburg Public Library 200 SE Martin Luther King Jr. Blvd Evansville IN 47708-1694 *(Library)*									
8		Mr. Don Mottley Save Our Rivers 6222 Yankeetown Hwy Boonville IN 47601 *(Affected Party)*									
9		Vanderburgh County Health Dept. 420 Milberry Street Evansville IN 47713-1888 *(Health Department)*									
10		Mr. Mark Wilson Evansville Courier & Press P.O. Box 268 Evansville IN 47702-0268 *(Affected Party)*									
11											
12											
13											
14											
15											

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