



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: August 8, 2007
RE: Toray Resin Company / 141-23775-00021
FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot 03/23/06



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100 North Senate Avenue
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Minor Source Operating Permit Renewal OFFICE OF AIR QUALITY

**Toray Resin Company
821 Mausoleum Road
Shelbyville, Indiana 46176**

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

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

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 MSOP under 326 IAC 2-6.1.

Operation Permit No.: M145-23775-00021	
Issued by: <i>Original document signed by</i> Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: August 8, 2007 Expiration Date: August 8, 2012

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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 and A.2 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 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary thermoplastic and engineered resin pellets production operation.

Source Address:	821 Mausoleum Road, Shelbyville, Indiana 46176
Mailing Address:	821 Mausoleum Road, Shelbyville, IN 46176
General Source Phone Number:	(317) 398-7833
SIC Code:	3087
County Location:	Shelby
Source Location Status:	Nonattainment for 8-hour ozone standard Attainment for all other criteria pollutants
Source Status:	Minor Source 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

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

- (a) One (1) plastic pellet production line, identified as P1 with a capacity of 3,200 lb/hr, constructed in 1992, and controlled by one (1) baghouse exhausting to vent ES-1. This line includes pneumatic conveying (to and from the line) of the plastic pellets (consisting of thermoplastic and engineered resins); hoppers for raw materials (the plastic pellets, fill, pigment and additive), weighing, mixing and staging; extrusion of the mixed material; water bath to cool the strands; air sucker to dry the strands; pelletizing and storage bins for the plastic pellets.
- (b) One (1) plastic pellet production line, identified as P2 with a capacity of 800 lb/hr, constructed in 1992, and controlled by one (1) baghouse exhausting to vent ES-1. This line includes pneumatic conveying (to and from the line) of the plastic pellets (consisting of thermoplastic and engineered resins); hoppers for raw materials (the plastic pellets, fill, pigment and additive), weighing, mixing and staging; extrusion of the mixed material; water bath to cool the strands; air sucker to dry the strands; pelletizing and storage bins for the plastic pellets.
- (c) One (1) plastic pellet production line, identified as P4 with a capacity of 3,200 lb/hr, constructed in 1994, and controlled by one (1) baghouse exhausting to vent ES-1. This line includes pneumatic conveying (to and from the line) of the plastic pellets (consisting of thermoplastic and engineered resins); hoppers for raw materials (the plastic pellets, fill, pigment and additive), weighing, mixing and staging; extrusion of the mixed material; water bath to cool the strands; air sucker to dry the strands; pelletizing and storage bins for the plastic pellets.

- (d) One (1) plastic pellet production line, identified as P5 with a capacity of 3,200 lb/hr, constructed in 1995, and controlled by one (1) baghouse exhausting to vent ES-1. This line includes pneumatic conveying (to and from the line) of the plastic pellets (consisting of thermoplastic and engineered resins); hoppers for raw materials (the plastic pellets, fill, pigment and additive), weighing, mixing and staging; extrusion of the mixed material; water bath to cool the strands; air sucker to dry the strands; pelletizing and storage bins for the plastic pellets.
- (e) One (1) plastic pellet production line, identified as P6 with a capacity of 1,000 lb/hr, constructed in 1995, and controlled by one (1) baghouse exhausting to vent ES-1. This line includes pneumatic conveying (to and from the line) of the plastic pellets (consisting of thermoplastic and engineered resins); hoppers for raw materials (the plastic pellets, fill, pigment and additive), weighing, mixing and staging; extrusion of the mixed material; water bath to cool the strands; air sucker to dry the strands; pelletizing and storage bins for the plastic pellets.
- (f) One (1) plastic pellet production line, identified as P7 with a capacity of 2,800 lb/hr, constructed in 1995, and controlled by one (1) baghouse exhausting to vent ES-1. This line includes pneumatic conveying (to and from the line) of the plastic pellets (consisting of thermoplastic and engineered resins); hoppers for raw materials (the plastic pellets, fill, pigment and additive), weighing, mixing and staging; extrusion of the mixed material; water bath to cool the strands; air sucker to dry the strands; pelletizing and storage bins for the plastic pellets.
- (g) Two (2) specialty plastic pellet production line, identified as Y2 and Y3, each with a capacity of 400 lb/hr, constructed in 1996, and controlled by one (1) baghouse exhausting to vent ES-1.
- (h) Two (2) large pellet blenders, identified as PB1 and PB2, used for batch blending of raw pellets or finished product pellets. The pellets are pneumatically conveyed to the blenders and removed by gravity feed after blending. Each blender is an enclosed system with no exhaust, therefore the only emissions are from the pneumatic conveyance.
- (i) Various natural gas fired space heaters with a total heat input capacity of 5.3 MMBtu per hour.
- (j) One (1) solvent parts cleaner, installed in 1992, with maximum solvent usage rate of 60 gallons per year.
- (k) One (1) high temperature fluidized sand bed equipped with a single chamber afterburner, installed in 1998, used to remove plastic residue from steel equipment parts, with a maximum process capacity of 3.7 pounds per hour, equipped with a natural gas fired primary chamber rated at 0.1486 MMBtu per hour, exhausting through one (1) cyclone.
- (l) One (1) welding operation consisting of one (1) MIG welder, one (1) TIG welder, one (1) Arc welder and one (1) OxyAcetylene brazing unit, with a combined maximum wire consumption of 50 pounds per year.

SECTION B GENERAL CONDITIONS

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

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 2-1.1-1) shall prevail.

B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

-
- (a) This permit, M145-23775-00021, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

B.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

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

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

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

B.7 Duty to Provide Information

-
- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). 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

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue,
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251
- (c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

B.10 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) 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.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to M145-23775-00021 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.12 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least ninety (90) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.13 Permit Renewal [326 IAC 2-6.1-7]

- (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 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require the certification 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
 - (1) Submitted at least ninety (90) days 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 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.14 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

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

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

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.15 Source Modification Requirement

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

B.16 Inspection and Entry

[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][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 permitted 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.17 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

The application which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.18 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.
- (b) 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.19 Credible Evidence [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 2-6.1-5(a)(1)]

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

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

C.2 Permit Revocation [326 IAC 2-1.1-9]

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

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

C.3 Opacity [326 IAC 5-1]

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

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

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

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

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

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

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

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

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

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by 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 Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-6.1-5(a)(2)]

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

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

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by 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 certification 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 2-6.1-5(a)(2)]

C.10 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

C.12 Instrument Specifications [326 IAC 2-1.1-11]

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

Corrective Actions and Response Steps

C.13 Actions Related to Noncompliance Demonstrated by a Stack Test

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

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

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

C.14 Malfunctions Report [326 IAC 1-6-2]

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

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.15 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (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. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.16 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (b) 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.
- (c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) plastic pellet production line, identified as P1 with a capacity of 3,200 lb/hr, constructed in 1992, and controlled by one (1) baghouse exhausting to vent ES-1. This line includes pneumatic conveying (to and from the line) of the plastic pellets (consisting of thermoplastic and engineered resins); hoppers for raw materials (the plastic pellets, fill, pigment and additive), weighing, mixing and staging; extrusion of the mixed material; water bath to cool the strands; air sucker to dry the strands; pelletizing and storage bins for the plastic pellets.
- (b) One (1) plastic pellet production line, identified as P2 with a capacity of 800 lb/hr, constructed in 1992, and controlled by one (1) baghouse exhausting to vent ES-1. This line includes pneumatic conveying (to and from the line) of the plastic pellets (consisting of thermoplastic and engineered resins); hoppers for raw materials (the plastic pellets, fill, pigment and additive), weighing, mixing and staging; extrusion of the mixed material; water bath to cool the strands; air sucker to dry the strands; pelletizing and storage bins for the plastic pellets.
- (c) One (1) plastic pellet production line, identified as P4 with a capacity of 3,200 lb/hr, constructed in 1994, and controlled by one (1) baghouse exhausting to vent ES-1. This line includes pneumatic conveying (to and from the line) of the plastic pellets (consisting of thermoplastic and engineered resins); hoppers for raw materials (the plastic pellets, fill, pigment and additive), weighing, mixing and staging; extrusion of the mixed material; water bath to cool the strands; air sucker to dry the strands; pelletizing and storage bins for the plastic pellets.
- (d) One (1) plastic pellet production line, identified as P5 with a capacity of 3,200 lb/hr, constructed in 1995, and controlled by one (1) baghouse exhausting to vent ES-1. This line includes pneumatic conveying (to and from the line) of the plastic pellets (consisting of thermoplastic and engineered resins); hoppers for raw materials (the plastic pellets, fill, pigment and additive), weighing, mixing and staging; extrusion of the mixed material; water bath to cool the strands; air sucker to dry the strands; pelletizing and storage bins for the plastic pellets.
- (e) One (1) plastic pellet production line, identified as P6 with a capacity of 1,000 lb/hr, constructed in 1995, and controlled by one (1) baghouse exhausting to vent ES-1. This line includes pneumatic conveying (to and from the line) of the plastic pellets (consisting of thermoplastic and engineered resins); hoppers for raw materials (the plastic pellets, fill, pigment and additive), weighing, mixing and staging; extrusion of the mixed material; water bath to cool the strands; air sucker to dry the strands; pelletizing and storage bins for the plastic pellets.
- (f) One (1) plastic pellet production line, identified as P7 with a capacity of 2,800 lb/hr, constructed in 1995, and controlled by one (1) baghouse exhausting to vent ES-1. This line includes pneumatic conveying (to and from the line) of the plastic pellets (consisting of thermoplastic and engineered resins); hoppers for raw materials (the plastic pellets, fill, pigment and additive), weighing, mixing and staging; extrusion of the mixed material; water bath to cool the strands; air sucker to dry the strands; pelletizing and storage bins for the plastic pellets.

- (g) Two (2) specialty plastic pellet production line, identified as Y2 and Y3, each with a capacity of 400 lb/hr, constructed in 1996, and controlled by one (1) baghouse exhausting to vent ES-1.
 - (h) Two (2) large pellet blenders, identified as PB1 and PB2, used for batch blending of raw pellets or finished product pellets. The pellets are pneumatically conveyed to the blenders and removed by gravity feed after blending. Each blender is an enclosed system with no exhaust, therefore the only emissions are from the pneumatic conveyance.
- (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 2-6.1-5(a)(1)]

D.1.1 Particulate Matter Limitation (PM) [326 IAC 6-3]

The particulate matter (PM) emissions from the following processes shall be limited by the following equation:

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

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

Emission Unit	Process Weight Rate (tons/hr)	Allowable PM Emissions Pursuant to 326 IAC 6-3-2 (lb/hr)
P1	1.60	5.61
P2	0.40	2.21
P4	1.60	5.61
P5	1.60	5.61
P6	0.50	2.57
P7	1.40	5.13
Y2	0.20	1.39
Y3	0.20	1.39

Compliance Determination Requirements

D.1.2 Particulate Matter (PM)

The cyclone separators, cartridge filters, and baghouse ES-1 for PM control shall be in operation at all times when any of the six (6) plastic pellet production lines (P1, P2, P4, P5, P6, and P7) are in operation.

SECTION D.2

EMISSIONS UNITS OPERATION CONDITIONS

Emissions Unit Description:

- (a) Various natural gas fired space heaters with a total heat input capacity of 5.3 MMBtu per hour.
- (b) One (1) solvent parts cleaner, installed in 1992, with maximum solvent usage rate of 60 gallons per year.
- (c) One (1) high temperature fluidized sand bed equipped with a single chamber afterburner, installed in 1998, used to remove plastic residue from steel equipment parts, with maximum process capacity of 3.7 pounds per hour, equipped with a natural gas fired primary chamber rated at 0.1486 MMBtu per hour, exhausting through one (1) cyclone.
- (d) One (1) welding operation consisting of one (1) MIG welder, one (1) TIG welder, one (1) Arc welder and one (1) OxyAcetylene brazing unit, with combined maximum wire consumption of 50 pounds per year.

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

Emission Limitations and Standards

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

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the one (1) solvent parts cleaner shall:

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

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

The one (1) solvent parts cleaner shall comply with the following requirements.

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

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

D.2.3 Incinerators [326 IAC 4-2-2]

Pursuant to 326 IAC 4-2-2 (Incinerators: Requirements), the natural gas fired high temperature fluidized sand bed shall comply with the following:

- (a) The high temperature fluidized sand bed 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 paragraph (c) of this condition.
 - (5) Not emit particulate matter in excess of 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.
 - (6) If any of the requirements of (1) through (5) are not met, then the Permittee shall stop charging the high temperature fluidized sand bed until adjustments are made that address the underlying cause of the deviation.
- (b) A Permittee developing an operation and maintenance plan pursuant to paragraph (a)(4) of this condition must comply with the following:
- (1) The operation and maintenance plan must be designed to meet the particulate matter emission limitation specified in paragraph (a)(5) of this condition and include the following:
 - (A) Procedures for receiving, handling, and charging waste.
 - (B) Procedures for high temperature fluidized sand bed startup and shutdown.
 - (C) Procedures for responding to a malfunction.
 - (D) Procedures for maintaining proper combustion air supply levels.
 - (E) Procedures for operating the high temperature fluidized sand bed and associated air pollution control systems.
 - (F) Procedures for handling ash.
 - (G) A list of wastes that can be burned in the high temperature fluidized sand bed.
 - (2) Each high temperature fluidized sand bed 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 high temperature fluidized sand bed operators.
 - (4) The Permittee shall notify the department, in writing, thirty (30) days after the operation and maintenance plan is initially developed pursuant to this section.
- (d) The Permittee shall make the manufacturer's specifications or the operation and maintenance plan available to the department upon request.

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

**MINOR SOURCE OPERATING PERMIT (MSOP)
CERTIFICATION**

Source Name: Toray Resin Company
Source Address: 821 Mausoleum Road, Shelbyville, IN 46176
Mailing Address: 821 Mausoleum Road, Shelbyville, IN 46176
MSOP No.: M145 23775 00021

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 Notification
- 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 BRANCH**

**MINOR SOURCE OPERATING PERMIT
 ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	Toray Resin Company
Address:	821 Mausoleum Road
City:	Shelbyville, Indiana 46176
Phone #:	(317) 398-7833
MSOP #:	M145-23775-00021

I hereby certify that Toray Resin Company is :	<input type="checkbox"/> still in operation.
	<input type="checkbox"/> no longer in operation.
I hereby certify that Toray Resin Company is :	<input type="checkbox"/> in compliance with the requirements of MSOP M145-23775-00021.
	<input type="checkbox"/> not in compliance with the requirements of MSOP M145-23775-00021.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY FAX NUMBER - 317 233-6865

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

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?____, 25 TONS/YEAR SULFUR DIOXIDE ?____, 25 TONS/YEAR NITROGEN OXIDES?____, 25 TONS/YEAR VOC ?____, 25 TONS/YEAR HYDROGEN SULFIDE ?____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?____, 25 TONS/YEAR FLUORIDES ?____, 100TONS/YEAR CARBON MONOXIDE ?____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERM LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF >MALFUNCTION= AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. () _____
LOCATION: (CITY AND COUNTY) _____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/20____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

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

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

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

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

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

Addendum to the
Technical Support Document for Minor Source Operating Permit Renewal

Source Name:	Toray Resin Company
Source Location:	821 Mausoleum Road, Shelbyville, IN 46176
County:	Shelby
SIC Code:	3087
Permit Renewal No.:	M145-23775-00021
Permit Reviewer:	Adeel Yousuf / EVP

On June 27, 2007, the Office of Air Quality (OAQ) had a notice published in the Shelbyville News, Shelbyville, Indiana, stating that Toray Resin Company had applied for a Minor Source Operating Permit (MSOP) renewal to operate a thermoplastic and engineered resin pellets production facility. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On July 6, 2007, John W. Kilmer of BCA Consultants, Inc., on behalf of Toray Resin Company, submitted comments on the proposed MSOP renewal. The summary of the comments and corresponding responses is as follows (bolded language has been added and the language with a line through it has been deleted):

Comment 1:

The third paragraph of the cover letter (first page) and TSD page 4 of 11 "Enforcement Issue" section state that "...equipment has been constructed (and/or operated) prior to receipt of the proper permit." The section clearly implies that referenced units were operated in violation of 326 IAC 2 requirements for obtaining a permit. However, potential emissions from each of the units being added to the permit are below permitting thresholds as defined in 326 IAC 2-1.1-3(e)(1). Therefore, they were not subject to the permit revision requirements under 326 IAC 3-6.1-6, including the requirement to submit an application.

Please revise the TSD Page 2 of 11 as follows:

Unpermitted Emission Units and Pollution Control Equipment ~~Constructed and/or Operated without a Permit~~

The source also consists of the following **unpermitted** emission units **and pollution control equipment:** ~~that were constructed and/or are operating without a permit:~~

Please revise the TSD Page 4 of 11 as follows:

Enforcement Issue

Toray is exempt from construction requirements for the emission units ~~IDEM is aware that equipment has been constructed (and/or operated) prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled "Unpermitted Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit" under 326 IAC 2-1.1-3(e)(1) since the PTE of each of the units is below the applicable permitting threshold.~~

~~IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules. There are no outstanding enforcement issues.~~

Response 1:

Since the PTE of each listed emission unit is below the applicable permitting threshold as defined in 326 IAC 2-1.1-3(e)(1), the source was not required to submit a permit revision application or acquire prior approval for construction. Based on this determination, there is no enforcement issue for this source. The OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the technical support document that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. The changes in this addendum are shown as follows:

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted emission units and pollution control equipment:

Enforcement Issue

There are no enforcement actions pending.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Minor Source Operating Permit Renewal

Source Background and Description

Source Name:	Toray Resin Company
Source Location:	821 Mausoleum Road, Shelbyville, IN 46176
County:	Shelby
SIC Code:	3087
Permit Renewal No.:	M145-23775-00021
Permit Reviewer:	Adeel Yousuf / EVP

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Toray Resin Company relating to the operation of a thermoplastic and engineered resin pellets production facility.

History

On October 16, 2006, Toray Resin Company submitted an application to the OAQ requesting to renew its operating permit. Toray Resin Company was issued a Minor Source Operating Permit No. 145-15030-00021 on January 14, 2002.

Permitted Emission Units and Pollution Control Equipment

- (a) One (1) plastic pellet production line, identified as P1 with a capacity of 3,200 lb/hr, constructed in 1992, and controlled by one (1) baghouse exhausting to vent ES-1. This line includes pneumatic conveying (to and from the line) of the plastic pellets (consisting of thermoplastic and engineered resins); hoppers for raw materials (the plastic pellets, fill, pigment and additive), weighing, mixing and staging; extrusion of the mixed material; water bath to cool the strands; air sucker to dry the strands; pelletizing and storage bins for the plastic pellets.
- (b) One (1) plastic pellet production line, identified as P2 with a capacity of 800 lb/hr, constructed in 1992, and controlled by one (1) baghouse exhausting to vent ES-1. This line includes pneumatic conveying (to and from the line) of the plastic pellets (consisting of thermoplastic and engineered resins); hoppers for raw materials (the plastic pellets, fill, pigment and additive), weighing, mixing and staging; extrusion of the mixed material; water bath to cool the strands; air sucker to dry the strands; pelletizing and storage bins for the plastic pellets.
- (c) One (1) plastic pellet production line, identified as P4 with a capacity of 3,200 lb/hr, constructed in 1994, and controlled by one (1) baghouse exhausting to vent ES-1. This line includes pneumatic conveying (to and from the line) of the plastic pellets (consisting of thermoplastic and engineered resins); hoppers for raw materials (the plastic pellets, fill, pigment and additive), weighing, mixing and staging; extrusion of the mixed material; water bath to cool the strands; air sucker to dry the strands; pelletizing and storage bins for the plastic pellets.

- (d) One (1) plastic pellet production line, identified as P5 with a capacity of 3,200 lb/hr, constructed in 1995, and controlled by one (1) baghouse exhausting to vent ES-1. This line includes pneumatic conveying (to and from the line) of the plastic pellets (consisting of thermoplastic and engineered resins); hoppers for raw materials (the plastic pellets, fill, pigment and additive), weighing, mixing and staging; extrusion of the mixed material; water bath to cool the strands; air sucker to dry the strands; pelletizing and storage bins for the plastic pellets.
- (e) One (1) plastic pellet production line, identified as P6 with a capacity of 1,000 lb/hr, constructed in 1995, and controlled by one (1) baghouse exhausting to vent ES-1. This line includes pneumatic conveying (to and from the line) of the plastic pellets (consisting of thermoplastic and engineered resins); hoppers for raw materials (the plastic pellets, fill, pigment and additive), weighing, mixing and staging; extrusion of the mixed material; water bath to cool the strands; air sucker to dry the strands; pelletizing and storage bins for the plastic pellets.
- (f) One (1) plastic pellet production line, identified as P7 with a capacity of 2,800 lb/hr, constructed in 1995, and controlled by one (1) baghouse exhausting to vent ES-1. This line includes pneumatic conveying (to and from the line) of the plastic pellets (consisting of thermoplastic and engineered resins); hoppers for raw materials (the plastic pellets, fill, pigment and additive), weighing, mixing and staging; extrusion of the mixed material; water bath to cool the strands; air sucker to dry the strands; pelletizing and storage bins for the plastic pellets.
- (g) Various natural gas fired space heaters with a total heat input capacity of 5.3 MMBtu per hour.

Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit

The source also consists of the following emission units that were constructed and/or are operating without a permit:

- (a) Two (2) specialty plastic pellet production line, identified as Y2 and Y3, each with a capacity of 400 lb/hr, constructed in 1996, and controlled by one (1) baghouse exhausting to vent ES-1.
- (b) Two (2) large pellet blenders, identified as PB1 and PB2, used for batch blending of raw pellets or finished product pellets. The pellets are pneumatically conveyed to the blenders and removed by gravity feed after blending. Each blender is an enclosed system with no exhaust, therefore the only emissions are from the pneumatic conveyance.
- (c) One (1) solvent parts cleaner, installed in 1992, with maximum solvent usage rate of 60 gallons per year.
- (d) One (1) high temperature fluidized sand bed equipped with a single chamber afterburner, installed in 1998, used to remove plastic residue from steel equipment parts, with a maximum process capacity of 3.7 pounds per hour, equipped with a natural gas fired primary chamber rated at 0.1486 MMBtu per hour, exhausting through one (1) cyclone.
- (e) One (1) welding operation consisting of one (1) MIG welder, one (1) TIG welder, one (1) Arc welder and one (1) OxyAcetylene brazing unit, with a combined maximum wire consumption of 50 pounds per year.

Emission Units and Pollution Control Equipment Removed From the Source

The following emission unit has been removed from the source:

- (a) One (1) plastic pellet production line, identified as P3 with a capacity of 1,000 lb/hr. This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

Existing Approvals

Since the issuance of the MSOP 145-15030-00021 on January 14, 2002, the source has been operating under the following approvals:

- (a) Notice Only Change No. 145-15747-00021, issued on April 5, 2002; and
- (b) Significant Permit Revision No. 145-16485-00021, issued on January 29, 2003.

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.

Air Pollution Control Justification as an Integral Part of the Process

The applicant has submitted the following justification such that the cyclones and cartridge filters be considered an integral part of each pneumatic conveyance system:

For each of the six (6) plastic pellet production lines, a pneumatic conveyance system draws raw pellets up to a hopper (the start of the production line) on the fourth floor where the pellets are separated from the air stream by means of a cyclone receiver. The cyclone receivers are integral to the process. Without them the pellets would not be separated from the air stream and would not enter the hoppers at the start of the production lines. Also, without the cyclones, the value of the product would be zero, since the raw pellets would not be separated from the air stream and the process would not operate.

After the cyclone separators remove the pellets from the air stream, the air passes through additional cartridge filters before exhausting through the vacuum blowers. The maximum inlet loading is 0.03 grains/cf, the air flow is 400 acfm and the filter removes at least 90% of the particulate. The filters are integral to the process because they are in place to prevent damage to the blowers. The absence of the filters results in rapid deterioration of the (high-speed) blower vanes. When the vanes deteriorate the pneumatic conveyance can no longer lift the pellets to the hopper/blenders at the top of the process lines and the production line must be shut down. The blower is shipped air freight, repaired (cost about \$2,500) and returned to the facility with at least 7 days of down-time for the process line. Due to production limits, scheduling and on-time delivery needs the lost production cannot be made up. The facility estimates the cost of production down-time (from whatever cause) at \$300/hr/line. Thus, the loss from a single filter failure is \$52,900. The capital cost of the filter is under \$10,000 and the cost of operating the filters is about \$1,000 per year for filter replacements. Thus, the economic benefit of the filters far outweighs their cost.

IDEM, OAQ has evaluated the justifications and agreed that the cyclones and cartridge filters will be considered as an integral part of the pneumatic conveyance system. Therefore, the permitting level will be determined using the potential to emit after the cyclones and cartridge filters. Operating conditions in the proposed permit will specify that the cyclones and cartridge filters shall operate at all times when each pneumatic conveyance system is in operation.

Enforcement Issue

IDEM is aware that equipment has been constructed (and/or operated) prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled "Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit".

IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
ES1	Baghouse for Plastic Pellet Production Lines	11.2	1.0	7,600	Ambient
ES2	Vacuum Exhaust (Pneumatic Conveyance)	11.2	1.0	10,600	Ambient + 15°
ES3	Air Suckers / Water Bath	11.2	1.0	3,500	Ambient
EF1 through EF11	Natural Gas Space Heaters	28-50	1.0	11,112	Ambient

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Shelby County

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

- (a) Shelby County has been classified as unclassifiable or attainment for PM_{2.5}. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions. See the State Rule Applicability – Entire Source section.

- (b) 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 emissions and NO_x emissions are considered when evaluating the rule applicability relating to ozone standards. Shelby County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability – Entire Source section.
- (c) Shelby County has been classified as attainment or unclassifiable in Indiana for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability - Entire Source section of this document.
- (d) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (e) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD or Emission Offset applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	39.13
PM-10	43.40
SO ₂	0.03
VOC	40.44
CO	2.08
NO _x	2.41

HAPs	tons/year
Hexane	4.773
Manganese	0.06
MTBE	0.022
2-Chloroaniline	0.031
Total	4.89

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants is less than 100 tons per year. The source is not subject to the provisions of 326 IAC 2-7. Therefore, the source will be issued an MSOP.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year.

Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are not counted toward the determination of Part 70 applicability.

Actual Emissions

No previous emission data has been received from the source.

Potential to Emit After Issuance

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

Process/emission unit	Potential To Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Plastic Pellet Production Lines (P1, P2, P4 through P7)	0.07	0.08	0.00	40.08	0.00	0.00	4.73 (single) 4.78 (total)
Pneumatic Conveying for Plastic Pellet Lines	2.70	2.70	0.00	0.00	0.00	0.00	0.00
Solvent Parts Cleaner	0.00	0.00	0.00	0.20	0.00	0.00	0.00
Welding	0.25	0.25	0.00	0.00	0.00	0.00	0.06 (single) 0.06 (total)
High Pressure Fluidized Sand Bed	0.06	0.06	0.02	0.02	0.08	0.02	negl.
Natural Gas Combustion	0.05	0.18	0.01	0.13	2.00	2.39	0.043 (single) 0.05 (total)
Total Emissions	3.13	3.27	0.03	40.43	2.08	2.41	4.773 (single) 4.89 (total)

Federal Rule Applicability

- (a) This source is a compounding source that processes, but does not manufacture polypropylene resins. Therefore, the requirements of 40 CFR 60, Subpart DDD, Standards of Performance for VOC Emissions from the Polymer Manufacturing Industry are not included in the permit for this source.
- (b) Polyvinyl Chloride (PVC) is not polymerized at this source. Therefore, the requirements of 40 CFR 61.60, Subpart F, National Emission Standard for Vinyl Chloride, and 40 CFR 63.210, Subpart J, National Emission Standards for Hazardous Air Pollutants for Polyvinyl Chloride and Copolymers Production are not included in the permit for this source.
- (c) This source is a resin compounding source. The source does not produce plastic composites, and is not a major source of HAPs. Therefore, the requirements of 40 CFR 63.5780, Subpart WWWW, National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, are not included in the permit for this source.
- (d) This source does not process or manufacture a thermoplastic product as defined by 40 CFR 63.1312. Therefore, the requirements of 40 CFR 63, Subpart JJJ, National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins are not included in the permit for this source. In addition, the potential to emit of any combination of HAPs and any single HAP is less than 25 and 10 tons per year, respectively.

- (e) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.50, Subpart E - Standards of Performance for Incinerators) are not included for the one (1) high pressure fluidized sand bed with maximum charge capacity of 3.7 pounds per hour, because the maximum charge capacity of this incinerator is below the rule applicability threshold of 50 tons per day.
- (f) The requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 63, Subpart EEE (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors) (326 IAC 20-28) are not included in the permit for the high pressure fluidized sand bed because this incinerator does not combust any hazardous air pollutants.
- (g) The requirements of the National Emission Standards for Hazardous Air Pollutants, 326 IAC 20, (40 CFR 63, Subpart T) are not included for the solvent parts cleaning operation since it only uses the Safety Clean Premium Gold parts washing solvent which does not contain any halogenated solvents.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

This source is not subject to this rule because potential uncontrolled emissions of all criteria pollutants are less than 250 tons per year. This source is also not one of the 28 listed source categories. Therefore, this source is not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)).

326 IAC 2-3 (Emission Offset)

On April 15, 2004, the United States Environmental Protection Agency (U.S. EPA) named 23 Indiana counties and one partial county nonattainment for the new 8-hour ozone standard. The designations became effective on June 15, 2004. Shelby County has been designated as basic nonattainment for the 8-hour ozone standard. Currently, the source wide potential emissions of NOX and VOC are less than 100 tons per year, for each pollutant. Therefore, the requirements of Emission Offset 326 IAC 2-3 do not apply.

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 or Porter counties, 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 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of this thermoplastic and engineered resin pellets production plant will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 5-1 (Opacity Limitations)

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

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

State Rule Applicability – Individual Facilities

326 IAC 4-2-2 (Incinerators)

The natural gas fired high pressure fluidized sand bed is subject to the requirements of 326 IAC 4-2-1. Pursuant to 326 IAC 4-2-2 (Incinerators), the high pressure fluidized sand bed shall comply with the following:

- (a) The high pressure fluidized sand bed 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 paragraph (c) of this condition.
 - (5) Not emit particulate matter in excess of 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.
 - (6) If any of the requirements of (1) through (5) are not met, then the Permittee shall stop charging the high pressure fluidized sand bed until adjustments are made that address the underlying cause of the deviation.
- (b) The high pressure fluidized sand bed is subject to paragraph (a)(5) of this condition since it is not subject to a more stringent particulate matter emission limit in 40 CFR 52 Subpart P, State Implementation Plan for Indiana.
- (c) A Permittee developing an operation and maintenance plan pursuant to paragraph (a)(4) of this section must comply with the following:
 - (1) The operation and maintenance plan must be designed to meet the particulate matter emission limitation specified in paragraph (a)(5) above 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 high pressure fluidized sand bed and associated air pollution control systems.
 - (F) Procedures for handling ash.
 - (G) A list of wastes that can be burned in the high pressure fluidized sand bed.
 - (2) Each high pressure fluidized sand bed 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 high pressure fluidized sand bed operators.
- (4) The Permittee shall notify the department, in writing, thirty (30) days after the operation and maintenance plan is initially developed pursuant to this section.
- (d) The Permittee shall make the manufacturer's specifications or the operation and maintenance plan available to the department upon request.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations), the particulate matter (PM) emissions from the following processes shall be limited by the following equations:

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

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

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

Emission Unit	Process Weight Rate (tons/hr)	Allowable PM Emissions Pursuant to 326 IAC 6-3-2 (lb/hr)	Potential PM Emissions (lb/hr) *	Able to Comply
P1	1.60	5.61	1.76	yes
P2	0.40	2.21	0.44	yes
P4	1.60	5.61	1.76	yes
P5	1.60	5.61	1.76	yes
P6	0.50	2.57	0.55	yes
P7	1.40	5.13	1.54	yes
Y2	0.20	1.39	0.22	yes
Y3	0.20	1.39	0.22	yes

The facilities listed above will be able to comply with the rule.

- (b) Pursuant to 326 IAC 6-3-1(b)(9), the welding operation is exempt from the requirements of 326 IAC 6-3-2, because the operation consumes less than 625 pounds of rod or wire per day.
- (c) Pursuant to 326 IAC 6-3-1(b)(14), each of the six (6) pneumatic conveyance system is exempt from the requirements of 326 IAC 6-3-2, because each system has potential emission of particulate less than 0.551 lb/hr.

326 IAC 8-1-6 (Volatile Organic Compounds)

This source is not subject to this rule. This rule applies to facilities constructed after January 1980, which have potential VOC emissions of 25 tons or more per year, and are not regulated by any other provisions of 326 IAC 8. Each of the plastic pellet production lines was constructed after January 1980; however, each individual line has potential VOC emissions less than 25 tons per year, therefore, this rule does not apply.

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

The one (1) solvent parts cleaning operation is subject to the requirements of 326 IAC 8-3-2 (Cold cleaner operation) since it was constructed after January 1, 1980. Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations) for cold cleaning operations the owner or operator shall:

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

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

The one (1) solvent parts cleaning operation is subject to the requirements of 326 IAC 8-3-5 since it was constructed after July 1, 1990. Pursuant to this rule, the Permittee shall comply with the following requirements for cold cleaner degreaser operation and control:

- (1) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the Permittee shall ensure that the following control equipment requirements are met:
 - (i) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
 - (ii) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (iii) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (iv) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

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

- (2) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
 - (i) Close the cover whenever articles are not being handled in the degreaser.
 - (ii) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (iii) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

Recommendation

The staff recommends to the Commissioner that the MSOP 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 October 16, 2006. Additional information was received on April 11, 2007.

Conclusion

The operation of this thermoplastic and engineered resin pellets production facility shall be subject to the conditions of the attached MSOP Renewal No. M145-23775-00021.

Appendix A: Emission Calculations Summary

Company Name: Toray Resin Company
Address City IN Zip: 821 Mausoleum Road, Shelbyville, IN 46176
Permit No.: 145-23775-00021
Plt ID: 145-00021
Reviewer: AY/EVP

Uncontrolled Potential Emissions (tons/year)							
Emissions Generating Activity							
Pollutant	Pellet Processing Lines	Pnuematic Conveying	Degreaser	Welding	HP Fluidized Sand Bed	Natural Gas Combustion	TOTAL
PM	36.07	2.70	0.00	0.25	0.06	0.05	39.13
PM10	40.21	2.70	0.00	0.25	0.06	0.18	43.40
SO2	0.00	0.00	0.00	0.00	0.02	0.01	0.03
NOx	0.00	0.00	0.00	0.00	0.02	2.39	2.41
VOC	40.08	0.00	0.20	0.00	0.02	0.13	40.44
CO	0.00	0.00	0.00	0.00	0.08	2.00	2.08
total HAPs	4.78	0.00	0.00	0.06	negl.	0.05	4.89
worst case single HAP	4.73 (Hexane)	0.00	0.00	0.06 (Manganese)	negl.	0.043 (Hexane)	4.773 (Hexane)
Total emissions based on rated capacity at 8,760 hours/year.							
Controlled Potential Emissions (tons/year)							
Emissions Generating Activity							
Pollutant	Powder Coating Operation	Pnuematic Conveying	Degreaser	Welding	HP Fluidized Sand Bed	Natural Gas Combustion	TOTAL
PM	0.07	2.70	0.00	0.25	0.06	0.05	3.13
PM10	0.08	2.70	0.00	0.25	0.06	0.18	3.27
SO2	0.00	0.00	0.00	0.00	0.02	0.01	0.03
NOx	0.00	0.00	0.00	0.00	0.02	2.39	2.41
VOC	40.08	0.00	0.20	0.00	0.02	0.13	40.44
CO	0.00	0.00	0.00	0.00	0.08	2.00	2.08
total HAPs	4.78	0.00	0.00	0.06	negl.	0.05	4.89
worst case single HAP	4.73 (Hexane)	0.00	0.00	0.06 (Manganese)	negl.	0.043 (Hexane)	4.773 (Hexane)
Total emissions based on rated capacity at 8,760 hours/year, after control.							

Appendix A: Emissions Calculations
VOC, CO and Particulate
From Extruder, Grinder, and Pelletizer Operations

Company Name: Toray Resin Company
Address City IN Zip: 821 Mausoleum Road, Shelbyville, IN 46176
Permit No.: 145-23775-00021
Plt ID: 145-00021
Reviewer: AY/EVP

Operation	Maximum Rate lbs/hr	PM			PM10			VOC		
		Emission Factor lbs/ton ^a	Potential lbs/hr	Potential tons/yr	Emission Factor lbs/ton ^b	Potential lbs/hr	Potential tons/yr	Emission Factor lbs/ton ^c	lbs/hr	tons/yr
Plastic Pellet Processing Lines										
P1	3200	1.098	1.76	7.69	1.224	1.96	8.58	1.22	1.95	8.55
P2	800	1.098	0.44	1.92	1.224	0.49	2.14	1.22	0.49	2.14
P4	3200	1.098	1.76	7.69	1.224	1.96	8.58	1.22	1.95	8.55
P5	3200	1.098	1.76	7.69	1.224	1.96	8.58	1.22	1.95	8.55
P6	1000	1.098	0.55	2.40	1.224	0.61	2.68	1.22	0.61	2.67
P7	2800	1.098	1.54	6.73	1.224	1.71	7.51	1.22	1.71	7.48
Plastic Pellet Minor Specialty Lines										
Y1	400	1.098	0.22	0.96	1.224	0.24	1.07	1.22	0.24	1.07
Y2	400	1.098	0.22	0.96	1.224	0.24	1.07	1.22	0.24	1.07
Uncontrolled Potential Emissions				36.07		40.21				40.08
Controlled Potential Emissions*				0.07		0.08				

Notes:

* The PM and PM10 emissions from all pellet lines are controlled by one (1) dust collector with control efficiency of 99.8%

a & b. PM and PM10 emission factors are based on stack test before control conducted on July 8, 2002, as required in MSOP 145-15030-00021, issued on January 14, 2002.

c. VOC emission factor is from the original MSOP 145-15030-00021, issued on January 14, 2002, which was originally based on a stack test conducted at a similar facility.

Appendix A: Process Particulate Emissions

Company Name: Toray Resin Company
Address City IN Zip: 821 Mausoleum Road, Shelbyville, IN 46176
Permit No.: 145-23775-00021
Plt ID: 145-00021
Reviewer: AY/EVP

PM and PM10 Emissions					
Emission Unit Description	Flowrate (acfm) (a)	Estimated Grain Loading (b) (gr/dscf)	Control Device % Efficiency	Uncontrolled Potential Emissions (ton/yr) *	Controlled Potential Emissions (ton/yr)
<i>Pneumatic Conveyors</i>					
PC1	400	0.030	90.00%	0.45	0.45
PC2	400	0.030	90.00%	0.45	0.45
PC3	400	0.030	90.00%	0.45	0.45
PC4	400	0.030	90.00%	0.45	0.45
PC5	400	0.030	90.00%	0.45	0.45
PC6	400	0.030	90.00%	0.45	0.45
* Each pneumatic conveyance system is equipped with a cyclone and a cartridge filter which are integral to the process, therefore the uncontrolled potential emissions for each are equal to the controlled potential emissions.					
Total Uncontrolled Potential Emissions (tons/yr):					2.70
Total Controlled Potential Emissions (metric tons/yr):					2.70

Notes:

- (a) Values are total airflows for all of the baghouses at an emission source.
- (b) Grain loading values in the baghouse exhaust, based on manufacturer's data.

Methodology:

Uncontrolled Potential Emissions (tons/yr) = Grain Loading (gr/dscf) x Air Flow (dscfm) x 60 (min/hr) x 1/7000 (lb/gr) x 1 ton / 2000 lb x 8760 hrs / 1 yr x (1 / 1 - Control Efficiency (%))

Controlled Potential Emissions (tons/yr) = Grain Loading (gr/dscf) x Air Flow (dscfm) x 60 (min/hr) x 1/7000 (lb/gr) x 1 ton / 2000 lb x 8760 hrs / 1 yr

Appendix A: Emissions Calculations
VOC, CO and Particulate
From Extruder, Grinder, and Pelletizer Operations

Company Name: Toray Resin Company
Address City IN Zip: 821 Mausoleum Road, Shelbyville, IN 46176
Permit No.: 145-23775-00021
Pit ID: 145-00021
Reviewer: AY/EVP

Operation	Maximum Rate lbs/hr	Hexane		4, 4-methylenebis (2-chloroaniline)		Methyl tert butyl ether	
		Emission Factor lbs/ton	Potential tons/yr	Emission Factor lbs/ton	tons/yr	Emission Factor lbs/ton	tons/yr
Plastic Pellet Processing Lines							
P1	3200	0.152	1.07	0.001	0.007	0.0007	0.005
P2	800	0.152	0.27	0.001	0.002	0.0007	0.001
P4	3200	0.152	1.07	0.001	0.007	0.0007	0.005
P5	3200	0.152	1.07	0.001	0.007	0.0007	0.005
P6	1000	0.152	0.33	0.001	0.002	0.0007	0.002
P7	2800	0.152	0.93	0.001	0.006	0.0007	0.004
Uncontrolled Potential Emissions			4.73		0.031		0.022

Worst Cast Single HAP (ton/yr): 4.73
Total HAPs (ton/yr): 4.78

Notes:

HAPs emission factor are from the original MSOP 145-15030-00021, issued on January 14, 2002, which was originally based on a stack test conducted at a similar facility.

Uncontrolled Potential Emissions (ton/yr) = Maximum Rate (lb/hr) x (1 ton / 2000 lb) x Emission Factor (lb/ton) x 4.38 (ton/yr / lb/hr)

Controlled Potential Emissions (ton/yr) = Maximum Rate (lb/hr) x (1 ton / 2000 lb) x Emission Factor (lb/ton) x 4.38 (ton/yr / lb/hr) x (1 - control efficiency %)

**Appendix A: Emission Calculations
VOC
From Cold Cleaning Operation**

Company Name: Toray Resin Company
Address City IN Zip: 821 Mausoleum Road, Shelbyville, IN 46176
Permit No.: 145-23775-00021
Pit ID: 145-00021
Reviewer: AY/EVP

Insignificant Activity: One (1) solvent parts cleaner

Potential Emissions:										
Material (as applied)	Density (Lb/Gal)	Weight % Volatile (H2O& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Usage Rate (gal/day)	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
Safety Clean Premium Gold solvent	6.70	100.00%	0.00%	100.00%	0.00%	0.00%	0.164	0.05	1.10	0.20
Total Potential Emissions:								0.05	1.10	0.201

There are no HAPs present in the cleaning solvent.

Methodology:

Potential VOC Pounds per Hour = Density (lb/gal) * Usage Rate (gal/day) / 24 hrs/day

Potential VOC Pounds per Day = Density (lb/gal) * Usage Rate (gal/day)

Potential VOC Tons per Year = Density (lb/gal) * Usage Rate (gal/day) * (365 days/yr) * (1 ton/2000 lbs)

**Appendix A: Emissions Calculations
Welding and Thermal Cutting**

Company Name: Toray Resin Company
Address City IN Zip: 821 Mausoleum Road, Shelbyville, IN 46176
Permit No.: 145-23775-00021
Plt ID: 145-00021
Reviewer: AY/EVP

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
			PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
WELDING											
Submerged Arc	1	1	0.036	0.011			0.036	0.011	0.000	0.000	0.011
Metal Inert Gas (MIG)(carbon steel)	1	2	0.0055	0.0005			0.011	0.001	0.000	0.000	0.001
Tungsten Inert Gas (TIG)(carbon steel)	1	1	0.0055	0.0005			0.006	0.001	0.000	0.000	0.001
Oxyacetylene(carbon steel)	1	1	0.0055	0.0005			0.006	0.001	0.000	0.000	0.001
EMISSION TOTALS											
Potential Emissions lbs/hr							0.06	0.01	0.00	0.00	0.01
Potential Emissions lbs/day							1.39	0.31	0.00	0.00	0.31
Potential Emissions tons/year							0.25	0.06	0.00	0.00	0.06

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

**Emission Factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm 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.) = 0.0039 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)

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(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, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

**Appendix A: Emission Calculations
One (1) Incinerator**

Company Name: Toray Resin Company
Address City IN Zip: 821 Mausoleum Road, Shelbyville, IN 46176
Permit No.: 145-23775-00021
Plt ID: 145-00021
Reviewer: AY/EVP

High Temperature Fluidized Sand Bed

	THROUGHPUT	THROUGHPUT
	lbs/hr	ton/yr
Potential	3.7	16.206

Emission Factor in lb/ton	POLLUTANT				
	PM	SO2	CO	VOC	NOX
	7.0	2.5	10.0	3.0	3.0
Potential Emissions in ton/yr	0.057	0.020	0.081	0.024	0.024

Methodology

Emission factors are from AP 42 (5th Edition 1/95) Table 2.1-12, Uncontrolled emission factors for industrial/commercial refuse combustors, multiple chambers

Throughput (lb/hr) * 8760 hr/yr * ton/2000 lb = throughput (ton/yr)

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

Company Name: Toray Resin Company
Address City IN Zip: 821 Mausoleum Road, Shelbyville, IN 46176
Permit No.: 145-23775-00021
Plt ID: 145-00021
Reviewer: AY/EVP

Heat Input Capacity	Potential Throughput
MMBtu/hr	MMCF/yr
5.4486	47.7

Facilities	MMBtu/hr
Various Space heaters	5.3
High Temperature Fluidized Sand Bed	0.1486
Total	5.4486

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.05	0.18	0.01	2.39	0.13	2.00

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

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

(SUPPLEMENT D 3/98)

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

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See next page for HAPs emissions calculations.

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

Company Name: Toray Resin Company
Address City IN Zip: 821 Mausoleum Road, Shelbyville, IN 46176
Permit No.: 145-23775-00021
Pit ID: 145-00021
Reviewer: AY/EVP

HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	5.012E-05	2.864E-05	1.790E-03	4.296E-02	8.114E-05

HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.193E-05	2.625E-05	3.341E-05	9.069E-06	5.012E-05

Methodology is the same as previous page.

Total HAPs:	4.504E-02
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The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.