



*Mitchell E. Daniels, Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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

TO: Interested Parties / Applicant  
DATE: December 11, 2007  
RE: SABIC Innovative Plastics / 005-25552-00049  
FROM: Matthew Stuckey, Deputy Branch Chief  
Permits Branch  
Office of Air Quality

### Notice of Decision – Approval

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 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from 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-AM.dot12/3/07



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr
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100 North Senate Avenue
MC 61-53 IGCN 1003
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Mr. William Daniels
SABIC Innovative Plastics US, LLC
945 South Marr Road
Columbus, Indiana 47201

December 11, 2007

Re: Registration Notice-Only Change
No. R005-25552-00049

Dear Mr. Daniels:

SABIC Innovative Plastics US, LLC was issued a Registration Notice-Only Change No. R005-25229-00049 on September 10, 2007 for a stationary custom plastic manufacturing plant, located at 945 South Marr Road, Columbus, Indiana 47201. On November 15, 2007, the Office of Air Quality (OAQ) received an application from the source requesting the following:

- 1. The source requested to construct and operate three (3) new grinders on existing Lines 72, 73, and 74. The three grinders will have a combined unlimited potential to emit of 0.1 tons of PM per year and 0.059 tons of PM10 per year. The addition of these units to the registration is considered a notice-only change, since the potential emissions of regulated criteria pollutants and hazardous air pollutants are less than the ranges specified in 326 IAC 2-5.5-6(d)(10) and 326 IAC 2-5.5-6(d)(12), respectively (see attached calculation tables for detailed emission calculations). The uncontrolled/unlimited potential to emit of the entire source will continue to be within the threshold levels specified in 326 IAC 2-5.5-1(b)(1). No new state rules are applicable to this source. There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) or National Emission standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 20 and 40 CFR Part 61, 63) included in this notice-only change.
2. The source requested to replace the existing batch dust collection systems with new batch dust collection systems for Lines 71, 72, 73, 74, 90, 91, and 92. This replacement includes adding more draw points and increasing the airflow to the new dust collection system. The potential to emit of the existing lines will not increase due to this replacement. This replacement will not result in the replacement or repair of the entire describe process, does not qualify as a reconstruction of the entire describe process, and will not result in an increase of actual emissions. Therefore, this change to the registration is considered a notice-only change pursuant to 326 IAC 2-5.5-6(d)(11).
3. The source requested to construct and operate a new dust collection system on the existing research and development line. The potential to emit PM and PM10 from the research and development line will not increase due to the addition of the dust collection system. This change to the registration is considered a notice-only change pursuant to 326 IAC 2-5.5-6(d)(2)

Pursuant to 326 IAC 2-5.5-6, the registration is hereby revised as follows, with deleted language as ~~strikeouts~~ and new language **bolded**:

(a) Four (4) long fiber filled extruded thermoplastic manufacturing lines, including:

...

(2) Line 72, constructed in 1995, having a maximum production rate of 1,000 pounds of product per hour, with emissions of particulate matter controlled using a dust

collector-, **equipped with a grinder having a maximum capacity of 10 pounds of backflow per hour, controlled with a filter.**

(3) Line 73, constructed in 1998, having a maximum production rate of 2,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector-, **equipped with a grinder having a maximum capacity of 10 pounds of backflow per hour, controlled with a filter.**

(4) Line 74, constructed in 2000, having a maximum throughput of 1,700 pounds of product per hour, with emissions of particulate matter controlled using a dust collector-, **equipped with a grinder having a maximum capacity of 10 pounds of backflow per hour, controlled with a filter.**

...

(f) One (1) research and development line, constructed in 1998, consisting of a feeder, hopper, extruder, die block, cooling bath, pelletizer, and molder, with a maximum production capacity of 300 pounds of product per hour-, **with emissions of particulate matter controlled by a dust collector.** ~~Emissions from these units are exhausted at stacks RD1 and RD2.~~

...

The source shall continue to operate according to 326 IAC 2-5.5. Please find enclosed the revised registration and calculation tables.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Brian Williams, at (800) 451-6027, press 0 and ask for Brian Williams or extension 4-5375, or dial (317) 234-5375.

Original signed by,

Iryn Calilung, Section Chief  
Permits Branch  
Office of Air Quality

IC/BMW

Attachment: Revised Registration and Calculation Tables

cc: File - Bartholomew County  
Bartholomew County Health Department  
Air Compliance Section  
Permit Tracking  
Compliance Data Section  
Permits Administrative and Development  
Billing, Licensing and Training Section



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Mr. William Daniels  
SABIC Innovative Plastics US, LLC  
945 South Marr Road  
Columbus, Indiana 47201

December 11, 2007

Re: Notice-Only Change No. R005-25552-00049  
Registered Construction and Operation Status

Dear Mr. Daniels:

Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following stationary custom plastic manufacturing plant, located at 945 South Marr Road, Columbus, Indiana 47201, is classified as registered:

- (a) Four (4) long fiber filled extruded thermoplastic manufacturing lines, including:
  - (1) Line 71, constructed in 1994 and modified in 2006, having a maximum production rate of 1,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.
  - (2) Line 72, constructed in 1995, having a maximum production rate of 1,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector, equipped with a grinder having a maximum capacity of 10 pounds of backflow per hour, controlled with a filter.
  - (3) Line 73, constructed in 1998, having a maximum production rate of 2,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector, equipped with a grinder having a maximum capacity of 10 pounds of backflow per hour, controlled with a filter.
  - (4) Line 74, constructed in 2000, having a maximum throughput of 1,700 pounds of product per hour, with emissions of particulate matter controlled using a dust collector, equipped with a grinder having a maximum capacity of 10 pounds of backflow per hour, controlled with a filter.
- (b) Six (6) short fiber filled extruded thermoplastic manufacturing lines, including:
  - (1) Line 81, constructed in 1989, having a maximum production rate of 2,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.
  - (2) Line 82, constructed in 1989, having a maximum production rate of 2,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.
  - (3) Line 84, constructed in 2002, having a maximum production rate of 200 pounds per hour, with emissions of particulate matter controlled using a dust collector.
  - (4) Line 90, constructed in January 2003, having a maximum production rate of 1,800 pounds per hour, with emissions of particulate matter controlled by a dust collector.

- (5) Line 91, constructed in 1994, having a maximum production rate of 2,000 pounds per hour, with emissions of particulate matter controlled by a dust collector.
- (6) Line 92, constructed in 1999, having a maximum production rate of 3,000 pounds of product per hour, with emissions of particulate matter controlled by a dust collector.
- (c) Pneumatic conveyance systems used to transfer raw material, intermediates, and finished products between silos, storage bins and hoppers. Each system uses a series of cyclones, filters and dust collectors, which collect the transferred material and in some cases, prevent dust from entering the vacuum pumps.
- (d) One (1) color pigment blending room, constructed in 2002, having a maximum production rate of 237 pounds per hour. Emissions of particulate matter are controlled using a dust collector.
- (e) One (1) molding room, constructed in 1994, consisting of two (2) molding units, identified as QC1 and QC2. Each molding unit has a maximum throughput of 1.5 pounds of product per hour.
- (f) One (1) research and development line, constructed in 1998, consisting of a feeder, hopper, extruder, die block, cooling bath, pelletizer, and molder, with a maximum production capacity of 300 pounds of product per hour, with emissions of particulate matter controlled by a dust collector.
- (g) One (1) natural gas fired makeup air unit with a maximum heat input capacity of 1.458 MMBtu per hour for the long-fiber product research and development lab constructed in January 2003.
- (h) Two (2) natural gas-fired pyrolysis cleaning ovens, identified as Units G1, and F, having a maximum heat input capacity of 0.37 and 1.5 MMBtu per hour, respectively. These ovens were constructed in 1994 and 1997, respectively.
- (i) Natural gas-fired heaters having a combined heat input capacity of 28.08 MMBtu per hour.
- (j) A cold cleaner used to perform non-halogenated organic solvent degreasing (mineral spirits) of parts in the maintenance shop that does not exceed 145 gallons per 12 months and that is not subject to 326 IAC 20-6. The cold cleaner is an offline system, batch type, which uses a cold spray, and is equipped with drain and remote reservoir with insignificant exposure to outside air.
- (k) One (1) R&D coextrusion line (identified as RD3), constructed in 2004, with a maximum production rate of 300 pounds of product per hour.
- (l) One (1) natural gas-fired rooftop unit, constructed in 2004, with a maximum heat input capacity of 0.80 MMBtu per hour, for the Gate 1 Office Area.
- (m) One (1) central vacuum system, constructed in 2004, consisting of two units (identified as CV1 and CV2). CV1 consists of a turbine providing vacuum suction through a vessel containing cartridge filters. CV2 consists of a turbine providing vacuum suction through an initial hopper for removal of pellets and a second hopper containing a bag filter.
- (n) One (1) natural gas-fired pyrolysis cleaning oven (identified as Unit G3), constructed in 2004, having a maximum heat input capacity of 0.55 MMBtu per hour. Emissions from this oven are exhausted to the atmosphere through stack G3.

The following conditions shall be applicable:

- (a) 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:
  - (1) 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.
  - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 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.
- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the short fiber filled extruded thermoplastic manufacturing line shall not exceed 5.38 pounds per hour.

The particulate emission limitations were calculated as follows:

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

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

- (c) Each of the pyrolysis cleaning ovens (identified as units G1, G3, and F) has a maximum solid waste capacity of less than 100 pounds per hour. Pursuant to 326 IAC 4-2 (Incinerators), each of these three incinerator units shall:
  - (1) Consist of primary and secondary chambers or the equivalent;
  - (2) Be equipped with a primary burner unless burning 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 326 IAC 4-2-2(c); and
  - (5) Not emit particulate matter in excess of five-tenths (0.5) pounds 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 (d)(1) through (d)(5) above are not met, the Permittee shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

The Permittee operating the incinerator must make the manufacturer's specifications or the operation and maintenance plan available to the department upon request.

- (d) Pursuant to 326 IAC 9-1-2 (Carbon Monoxide Emission Limits), the Permittee shall not operate the pyrolysis cleaning ovens (identified as units G1, G3, and F) unless the waste gas stream is burned in one of the following:
  - (1) Direct-flame afterburner; or
  - (2) Secondary chamber.

- (e) Pursuant to 326 IAC 8-3-1 (Organic Solvent Degreasing Operations), the cold cleaning degreaser is subject to the requirements of 326 IAC 8-3-2 (Cold Cleaner Operations), because it was constructed in 1998, after the applicability date of January 1, 1980. Pursuant to this rule, the Permittee shall:
- (1) Equip the cleaner with a cover;
  - (2) Equip the cleaner with a facility for draining cleaned parts;
  - (3) Close the degreaser cover whenever parts are not being handled in the cleaner;
  - (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
  - (5) Provide a permanent, conspicuous label summarizing the 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.

This source remains a registered source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

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

no later than March 1 of each year, with the annual notice being submitted in the form attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Original signed by,

Iryn Calilung, Section Chief  
Permits Branch  
Office of Air Quality

IC/BMW

cc: File - Bartholomew County  
Bartholomew County Health Department  
Air Compliance Section  
Permit Tracking  
Compliance Data Section  
Permits Administrative and Development  
Billing, Licensing and Training Section

**Registration  
Annual Notification**

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3).

<b>Company Name:</b>	<b>SABIC Innovative Plastics US, LLC</b>
<b>Address:</b>	<b>945 South Marr Road</b>
<b>City:</b>	<b>Columbus, Indiana 47201</b>
<b>Phone #:</b>	<b>(812) 372-9197</b>
<b>Registration #:</b>	<b>R005-25552-00049</b>

**Certification by the Authorized Individual**

I hereby certify that SABIC Innovative Plastics US, LLC is still in operation and is in compliance with the requirements of Registration No. R005-25552-00049.

**Name (typed):**

**Title:**

**Signature:**

**Phone Number:**

**Date:**

**SABIC US INNOVATIVE PLASTICS, LLC  
GRINDING**

**EMISSION CALCULATIONS**

**Appendix A: Emission Calculations  
Plastic Grinding PM/PM10 Emissions**

Company Name: SABIC US Innovative Plastics, LLC  
Address City IN Zip: 945 South Marr Road, Columbus, IN 47201  
Permit Number: 005-25552-00049  
Reviewer: Brian Williams

Line	Backflow Generated (lb/hr)	% Grinding*	PM Emission Factor (lb/ton)	PM10 Emission Factor (lb/ton)	Uncontrolled Potential PM Emissions (tons/yr)	Uncontrolled Potential PM10 Emissions (tons/yr)	Control Efficiency (%)	Controlled Potential PM Emissions (tons/yr)	Controlled Potential PM10 Emissions (tons/yr)
72	10	75%	2.00	1.20	0.03	0.020	99.90%	3.29E-05	1.97E-05
73	10	75%	2.00	1.20	0.03	0.020	99.90%	3.29E-05	1.97E-05
74	10	75%	2.00	1.20	0.03	0.020	99.90%	3.29E-05	1.97E-05
<b>Total</b>					<b>0.10</b>	<b>0.059</b>		<b>9.86E-05</b>	<b>5.91E-05</b>

**Methodology**

\*Twenty-five percent of the backflow generated is ungrindable due to excess particle size or contamination.

Source indicates that the material being grinded comes off in large chunks of material. However, there are no AP-42 emission factors for plastic grinding.

Therefore, PM/PM10 emission factors were obtained for Wood Waste Storage Bin Loadout (SCC 30703002) using EPA's WebFire, since the large chunks of material are similar in size to wood waste.

Uncontrolled Emissions (tons/yr) = Backflow Generated (lb/hr) x % Grinding % Emission Factor (lb/ton) x 8760 hrs/yr x 1 ton/2000 lbs x 1 ton/2000 lbs

Controlled Emissions (tons/yr) = Backflow Generated (lb/hr) x % Grinding % Emission Factor (lb/ton) x 8760 hrs/yr x 1 ton/2000 lbs x 1 ton/2000 lbs x (1 - % Control Efficiency)

**Appendix A: Emission Calculations  
Summary of Emissions**

**Company Name:** SABIC US Innovative Plastics, LLC  
**Address City IN Zip:** 945 South Marr Road, Columbus, IN 47201  
**Permit Number:** 005-25552-00049  
**Reviewer:** Brian Williams

<b>Pollutant</b>	<b>Potential to Emit of Entire Source After Modification (tons/year)</b>
PM	18.5
PM10	18.4
SO <sub>2</sub>	0.09
NO <sub>x</sub>	14.8
VOC	14.0
CO	12.5
Single HAP	0.25
Total HAPs	0.29