



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: December 22, 2010

RE: Sun Polymers International, Inc / 109-29936-00036

FROM: Matthew Stuckey, 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



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December 22, 2010

Mr. Mathew Niemiec
Sun Polymers International, Inc.
P O Box 249
 Mooresville, In, 46256

Re: 109-29936-00036
First Registration Notice-Only Change to
R109-9952-00036

Dear Mr. Niemiec:

Sun Polymers International, Inc. was issued a Registration No. R109-9952-00036 on October 1, 1998 for a stationary source, producing saturated polyester resin, located at 100 Sun Polymers Drive, Mooresville, IN 46158. November 29, 2010, the Office of Air Quality (OAQ) received an application from the source requesting the following:

- (1) The source requested permit be updated to add a new resin reactor, identified as R-3, which is identical to the existing resin reactors R-1 and R-2. The new resin reactor, identified as R-3 has a potential to emit 0.65 tons per year of PM, PM10 each and VOC of 5.61 tons per year (see Appendix A for calculations). Therefore, the addition of R-3 to the registration is considered a notice-only change, since the potential emissions of regulated pollutant 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. 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). The source also requested to change the batch operating cycle from thirty six hours (36) per batch to fifty two (52) hours per batch for resin reactors R-1 and R-2.
- (2) The source identified existing eight (8) space heaters of maximum capacity 0.085 MMBtu/hr each, constructed in 1998, are not included in the registration. The addition of these units to the registration is considered a notice-only change, since the potential emissions of regulated pollutant 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.
- (3) The source identified existing five (5) ASTs, (above ground storage tanks), constructed in 1998-2000, are not included in the registration. The five storage tanks have a potential to emit 0.206 tons of VOC per year combined. Therefore, the addition of these units to the registration is considered a notice-only change, since the potential emissions of regulated pollutant 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)912), respectively.
- (4) The source requested the removal of two 2,000 gallons each, above ground storage tanks (ASTs) for raw material which are listed in error.
- (5) The source requested to remove the 5.23 MMBtu/hr Liquid Waste Incinerator.
- (6) The source requested to eliminate the 5.0 MMBtu/hr steam boiler (S-2), and replace it with 0.78 MMBtu/hr of steam boiler (S-5).

These changes to the registration are 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 Appendix A for the PTE of the new emission units and the entire source. 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.

(a) Following new units are added during this review period:

- (1) **One (1) enclosed saturated polyester resin production unit, identified as resin reactor R-3, approved for construction in 2010, with a maximum throughput of 55,500 lbs of resin per batch, equipped with cyclone dust collector, DC-1 to control particulates, exhausting inside.**

NOTE: Resin reactor R-3, processes 55,500 lbs per batch (37,500 lbs dry granules and 18,000 lbs liquid), each batch is 52 hours long. Each batch cycle consists of pumping the raw material into the reactor, heating and reaction time for the solid material and partly cooling operation in the reactor. It takes less than 1 hour to add and mix the dry material during which the dust is generated and the control device operates only (one hour) during the mixing operation per batch cycle. Based on 8760 hours per year, and 52 hours long cycle, there are 168.46 batches per year.

- (2) **One (1) natural gas-fired steam boiler with a maximum heat input capacity of 0.78 million BTU/hr exhausting to stack S5.**

(b) The source requested to add the following existing emission unit descriptions because they were inadvertently left out from the Registration revision:

- (1) **Eight (8) natural gas-fired space heaters, maximum capacity 0.085 MMBtu/hr each, constructed in 1998.**

(2). ~~Two (2) above ground storage tanks, with a maximum capacity of 2000 gallons.~~
Five (5) above ground storage tanks (AST), constructed in 1998 through 2000 to store raw materials and waste products as listed below:

- (A) **One (1) fiberglass tank, maximum capacity 5,000 gallons, storing distillate with mix, identified as T-1.**
- (B) **One (1) steel tank, maximum capacity 27,000 gallons, storing ethylene glycol, identified as T-2 with negligible VOC emissions.**
- (C) **One (1) steel tank, maximum capacity 27,000 gallons, diethylene glycol, identified as T-3 .**
- (D) **One (1) steel tank, maximum capacity 81,000 gallons, storing neopentyl glycol, identified as T-4.**
- (E) **One (1) steel tank, maximum capacity 10,000 gallons, storing waste water tank, identified as T-5, with negligible VOC.**

NOTE: All tanks are under cover. Tanks T-2 and T-5 are in an unheated area and experience less than normal diurnal temperature swings. Tank T-1 is in a process room where temperatures are stable.

- (3) **Two (2) enclosed identical saturated polyester resin production units, identified as resin reactors R-1 and R-2, constructed in 1998, with a maximum throughput of 55,500 lbs of resin per batch, equipped with cyclone dust collector, DC-1 to control particulates,**

exhausting inside.

NOTE: 1. R-1, R-2 each reactor processes 55,500 lbs per batch (37,500 lbs dry granules and 18,000 lbs liquid), each batch is 52 hours long. Each batch cycle consists of pumping the raw material into the reactor, heating and reaction time for the solid material and partly cooling operation in the reactor and emptying the reactor for next batch. It takes less than 1 hour to add and mix the dry material during which the dust is generated and the control device operates only (one hour) during the mixing operation per batch cycle. Based on 8760 hours per year, and 52 hours long cycle, there are 168.46 batches per year for each reactor. The unit description for reactors R-1 and R-2 and particulate emissions were inadvertently left out in the Registration Revision No.: 109-14794-00036. The source requested to correct the batch cycle from 36 hours to 52 hours for resin reactors R-1 and R-2.

2. In accordance with Air-014-NPD, as revised on March 9, 1999, and pursuant to 326 IAC 2-5 the source specific alternative emission factors are used in the existing Registration revision No.: 109-14794-00036, developed by Wisconsin DNR, for estimating volatile organic compounds (VOC) emissions from the resin production. Identical emission factor of VOC is used for the new resin reactor, R-3.

(4) One (1) silo conveying, storage and bagging area, processing 3,375 lbs/hr of resin material, equipped with a control device, DC-2 to control particulates, exhausting inside.

NOTE: In accordance with Air-014-NPD, as revised on March 9, 1999, and pursuant to 326 IAC 2-5 the source specific alternative emission factors are used for silo conveying, storage and bagging area at this facility in the existing Registration Revisions No.: 109-14794-00036. The operation that closely matches silo conveying and bagging process is grain loadout. Therefore, the loadout emission factor of 0.27 lb of PM and PM-10 per ton of material transported has been used as listed in existing Registration revision. The source claims that the material transported throughput should be corrected to 3,375 lbs/hr, from 10,000 lbs/hr as listed in Registration revision No.: 109-14794-00036, due to the process limitation.

The overall source-wide emissions of particulates, PM10 and PM2.5 must be less than 25 tons per year before control, to be permitted as Registration source.

See Appendix A of this TSD for detailed emission calculations.

(c) Following emission units are removed during this review period:

- (a) ~~One (1) natural gas-fired steam boiler with a maximum heat input capacity of 5 million BTU/hr exhausting to stack S2.~~
- (d) ~~One (1) liquid waste incinerator, with a maximum capacity of 1936.7 pounds of waste per hour, using natural gas with a maximum heat input rate of 5.23 million BTU/hr, exhausting to stack S4.~~

This source does not manufacture any organic chemical listed in 40CFR 63.100 Subpart F (Table1). Therefore, the Hazardous Air Pollutants Standards (NESHAPs) (40 CFR Part 63, Subpart F) does not apply.

Federal Rule Applicability

- (a) 40 CFR 60.40 Subpart Dc -Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

The boiler C2 at this source has a maximum heat input rate of less than 10 million BTU/hr. Therefore, the boiler is not subject to the NSPS for small industrial-commercial-institutional steam

generating units (40 CFR 60.40 Subpart Dc).

(b) 40 CFR 60, Subpart Kb - Standards for Volatile Organic Liquid Storage Vessels

- (1) The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels, 40 CFR 60, Subpart Kb (326 IAC 12), are not applicable for the existing storage tanks T-2, and T-3 because although tank was constructed after the rule applicability date of July 23, 1984 and has a maximum capacity greater than 75 m³ (19,813 gallons) but less than 151 m³ (39,890 gallons), the liquid stored in each tank has a true maximum vapor pressure of less than fifteen kiloPascals (15.0 kPa).
- (2) The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels, 40 CFR 60, Subpart Kb (326 IAC 12), are not applicable for the existing storage tanks T-1 and T-5 each, because although each tank was constructed after the rule applicability date of July 23, 1984, each tank has a maximum capacity of less than 75 m³ (19,813 gallons), and the liquid stored in each tank has a maximum true vapor pressure of less than fifteen kiloPascals (15.0 kPa).
- (c) This source does not manufacture any organic chemical listed in 40CFR 63.100 Subpart F (Table1). Therefore, the Hazardous Air Pollutants Standards (NESHAPs) (40 CFR Part 63, Subpart F) does not apply.
- (d) The requirements of 40 CFR 60, Subpart VVVVVV (National emission Standards for Hazardous Air Pollutants (NESHAP) for chemical manufacturing Area sources) are not applicable to this source because source does not use feedstocks, generates a byproducts, or produces as products any of the hazardous air pollutants (HAP) listed in Table 1 to this subpart (Table 1 HAP).

Fugitive Emissions:

This source does not belong to any of the stationary source categories listed under one of the twenty-eight (28) sources and does not use any of the chemicals or operations listed. Therefore, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

State Rule applicability

326 IAC 6-3-2 (Process Operations)

- (a) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from each saturated polyester resin production units, R-1, R-2, and R-3 shall not exceed 37.99 lb/hr, when operating at process weight rates up to 55,500 pounds per hour each, which is equivalent to 27.75 tons/hr.

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

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

The particulates from this process with out control are 0.148 lb/hr, therefore the control device is not necessary for compliance.

- (b) The particulate matter (PM) from the silo conveying, storage and bagging area shall not exceed 5.82 lbs/hr when operating at a process weight rate of 3,375 lbs/hr, which is equivalent to 1.687 tons per hour.

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

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

The source is using an alternative emission factor to determine the potential to emit particulate matter. Therefore, pursuant to the Non Rule Policy Document for Approval and Validation of Alternate Emission Factors (Air-014-NPD), the cyclone dust collector shall be in operation at all times when the silo conveying, storage and bagging processes are in operation in order to comply with this limit.

326 IAC 6-2-4 (Particulate emissions limitations for sources of indirect heating)

The two (2) natural gas fired boilers, identified as C1 and C2, at this plant are sources of indirect heating, constructed after 1983, and are located in Morgan County, which is one of the counties listed in this rule. Therefore, the boilers are subject to 326 IAC 6-2-4.

The particulate emissions from the two (2) boilers shall be limited by the following equation:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate matter (PM) emitted per million BTU heat input (lb/mmBTU)
Q = Total source maximum operating capacity rating in million BTU per hour heat input.

$$Q = 8.0 \text{ MMBtu/hr (thermal fluid heating boiler)} + 5.0 \text{ MMBtu/hr (steam boiler-removed} \\ \text{2010)} + 0.78 \text{ MMBtu (new Boiler-2010)}$$

$$= 13.78 \text{ MMBtu/hr}$$

The emission rate limit calculated from the equation above equals:

$$Pt = \frac{1.09}{(8.0 + 5 + 0.78)^{0.26}} = 0.551 \text{ lbs/MMBtu (C2)}$$

326 IAC 8-9-4 (Volatile organic liquid storage vessels: standards)

Morgan County, which is not one of the counties listed in rule 326 IAC 8-9. Therefore, 326 IAC 8-9-4 does not apply to the storage vessels at this source.

326 IAC 4-2-2 (Incinerators: requirements)

The incinerator from this source has been removed and the material burned was not a hazardous waste, therefore 326 IAC 4-2-2 is not applicable and is removed from this registration.

IDEM, OAQ has decided to make additional revisions to the registration as described below. The registration has been revised as follows with deleted language as ~~strikeouts~~ and new language **bolded**:

1. The registration has been updated from the letter style format to the permit style format, as is now standard IDEM procedure. In addition, IDEM has begun implementing a new procedure and will no longer list the name or title of the Authorized Individual (AI) in registrations.
2. Several of IDEM's branches and sections have been renamed. Therefore, IDEM has updated the addresses listed in the registration. References to "Compliance Data Section" and "Compliance Branch" have been changed to "Compliance and Enforcement Branch". The registration has been revised as follows:

~~Compliance Data Section~~ **Compliance and Enforcement Branch**
~~Compliance Branch~~ **Compliance and Enforcement Branch**

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

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 Swarna Prabha, at (800) 451-6027, press 0 and ask for Swarna Prabha or extension 4-5376, or dial (317) 234-5376.

Sincerely,

A handwritten signature in black ink, appearing to read 'Iryn Calilung', followed by a small 'fa' or similar mark.

Iryn Calilung., Section Chief
Permits Branch
Office of Air Quality

IC/SP

Attachment: Revised Registration and Emission calculations Appendix A.

cc: File - Morgan County
Morgan County Health Department
Compliance and Enforcement Branch
Billing, Licensing and Training Section



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REGISTRATION OFFICE OF AIR QUALITY

Sun Polymers International, Inc.
100 Sun polymers Drive, Mooresville, Indiana 46158

Pursuant to 326 IAC 2-5.1 (Construction of New Sources: Registrations) and 326 IAC 2-5.5 (Registrations), (herein known as the Registrant) is hereby authorized to construct and operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this registration.

| | |
|--|--------------------------------|
| Registration No.: 109-9952-00036 | |
| Original signed by: Paul Dubenetzky, Chief Permits Branch Office of Air Quality | Issuance Date: October 1, 1998 |

First Registration Revision No.: 009-14794-00036, issued on October 4, 2001

| | |
|---|---|
| Registration Notice-Only Change No.:109-29936-00036 | |
| Issued by:  Iryn Callung, Section Chief Permits Branch Office of Air Quality | Issuance Date: December 22, 2010 |

SECTION A

SOURCE SUMMARY

This registration 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 Registrant 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 Registrant to obtain additional permits pursuant to 326 IAC 2.

A.1 General Information

The Registrant owns and operates a stationary manufacturing automotive parts out of sintered powder for engines, transmissions and shock absorbers.

| | |
|------------------------------|---|
| Source Address: | Sun Polymers International, Inc. Mooreville, IN 29936 |
| General Source Phone Number: | 812-379-4606 |
| SIC Code: | 3714 |
| County Location: | Morgan |
| Source Location Status: | Attainment for all criteria pollutants |
| Source Status: | Registration |

A.2 Emission Units and Pollution Control Equipment Summary

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

(a) Resin Production Units:

- (1) Two (2) enclosed identical saturated polyester resin production units, identified as resin reactors R-1 and R-2, constructed in 1998, each with a maximum throughput of 55,500 lbs of resin, equipped with a cyclone dust collector, DC-1 to control particulates, exhausting inside.
- (2) One (1) enclosed saturated polyester resin production unit, identified as resin reactor R-3, approved for construction in 2010, each with a maximum throughput of 55,500 lbs of resin equipped with a cyclone dust collector, DC-1 to control particulates, exhausting inside.
- (3) One (1) silo conveying, storage and bagging area, processing 3,375 lbs/hr of resin material, equipped with a cyclone dust collector, DC-2 to control particulates , exhausting inside.

(b) Combustion Units:

- (1) One (1) natural gas-fired thermal fluid heating boiler/heater, identified as C1, constructed in 1998, maximum heat input of 8.0 million BTU/hr, exhausting to stack S1.
- (2) One (1) natural gas-fired steam boiler, identified as C2, constructed in 2010, maximum heat input capacity of 0.78 million BTU/hr exhausting to stack S5.
- (3) One (1) natural gas-fired space heater furnace, identified as C3, constructed in 1998, with a maximum heat input capacity of 0.80 million BTU/hr, exhausting to stack S3.
- (4) Eight (8) natural gas-fired space heaters, collectively identified as C4, constructed in 1998, with a maximum capacity 0.085 MMBtu/hr each, exhausting outside.

- (c) Five (5) above ground storage tanks (AST), constructed in 1998 through 2000 to store raw materials and waste products as listed below:
- (1) One (1) fiberglass tank, maximum capacity 5,000 gallons, storing distillate with mix, identified as T-1.
 - (2) One (1) steel tank, maximum capacity 27,000 gallons, storing ethylene glycol, identified as T-2.
 - (3) One (1) steel tank, maximum capacity 27,000 gallons, storing diethylene glycol, identified as T-3.
 - (4) One (1) steel tank, maximum capacity 81,000 gallons, storing neopentyl glycol, identified as T-4.
 - (5) One (1) steel tank, maximum capacity 10,000 gallons, storing waste water, identified as T-5.

SECTION B

GENERAL CONDITIONS

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

Terms in this registration 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 Effective Date of Registration [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this registration 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.

B.3 Registration Revocation [326 IAC 2-1.1-9]

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

- (a) Violation of any conditions of this registration.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this registration.
- (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 registration shall not require revocation of this registration.
- (d) For any cause which establishes in the judgment of IDEM the fact that continuance of this registration is not consistent with purposes of this article.

B.4 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to Registration No. 109-9952-00036 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 registration.

B.5 Annual Notification [326 IAC 2-5.1-2(f)(3)] [326 IAC 2-5.5-4(a)(3)]

Pursuant to 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3):

- (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 registration.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

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

Indianapolis, 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.6 Source Modification Requirement [326 IAC 2-5.5-6(a)]

Pursuant to 326 IAC 2-5.5-6(a), 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.

B.7 Registrations [326 IAC 2-5.1-2(i)]

Pursuant to 326 IAC 2-5.1-2(i), this registration does not limit the source's potential to emit.

B.8 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this registration, the Registrant shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this registration or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

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

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

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

The Registrant shall implement the PMPs.

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Registrant to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.
- (c) To the extent the Registrant is required by 40 CFR Part 60 or 40 CFR Part 63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such OMM Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

SECTION C

SOURCE OPERATION CONDITIONS

| |
|---------------|
| Entire Source |
|---------------|

Emission Limitations and Standards [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

C.1 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 registration:

- (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.2 Fugitive Dust Emissions [326 IAC 6-4]

The Registrant 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).

SECTION D.1

OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (1) Two (2) enclosed identical saturated polyester resin production units, identified as resin reactors R-1 and R-2, constructed in 1998, each with a maximum throughput of 55,500 lbs of resin, equipped with a cyclone dust collector, DC-1 to control particulates, exhausting inside.
- (2) One (1) enclosed saturated polyester resin production unit, identified as resin reactor R-3, approved for construction in 2010, each with a maximum throughput of 55,500 lbs of resin, equipped with a cyclone dust collector, DC-1 to control particulates, exhausting inside.
- (3) One (1) resin cooling, conveying, silo storage and bagging area, processing 3,375 lbs/hr of resin material, equipped with a cyclone dust collector, DC-2 to control particulates, exhausting inside.

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

Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]

D.1.1 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from each of the saturated polyester resin production units, R-1, R-2, and R-3 shall not exceed 37.99 lb/hr, when operating at a process weight rates up to 27.75 tons per hour.
- (b) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the resin cooling, conveying, silo storage and bagging area shall not exceed 5.82 lbs/hr, when operating at a process weight rate of 1.687 tons/hr.

The pound per hour limitation for (a) and (b) was calculated with the following equation:

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

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

D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements

D.1.3 Particulate Control

The cyclone to control particulate emissions associated with the resin cooling, conveying, and silo storage, shall be operated at all times that the associated processes are in operation.

SECTION D.2

OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (b) Combustion Units:
- (1) One (1) natural gas-fired thermal fluid heating boiler/heater, identified as C1, constructed in 1998, maximum heat input of 8.0 million BTU/hr, exhausting to stack S1.
 - (2) One (1) natural gas-fired steam boiler, identified as C2, constructed in 2010, maximum heat input capacity of 0.78 million BTU/hr exhausting to stack S5.
 - (3) One (1) natural gas-fired space heater furnace, identified as C3, constructed in 1998, with a maximum heat input capacity of 0.80 million BTU/hr, exhausting to stack S3.
 - (4) Eight (8) natural gas-fired space heaters, collectively identified as C4, constructed in 1998, with a maximum capacity 0.085 MMBtu/hr each, exhausting outside.
- (c) Five (5) above ground storage tanks (AST), constructed in 1998 through 2000 to store raw materials and waste products as listed below:
- (1) One (1) fiberglass tank, maximum capacity 5,000 gallons, storing distillate with mix, identified as T-1.
 - (2) One (1) steel tank, maximum capacity 27,000 gallons, storing ethylene glycol, identified as T-2.
 - (3) One (1) steel tank, maximum capacity 27,000 gallons, storing diethylene glycol, identified as T-3.
 - (4) One (1) steel tank, maximum capacity 81,000 gallons, storing neopentyl glycol, identified as T-4.
 - (5) One (1) steel tank, maximum capacity 10,000 gallons, storing waste water, identified as T-5, with negligible VOC emissions.

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

Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]

326 IAC 6-2-4(a) (Particulate Emission Limitations for Sources of Indirect Heating)

Pursuant to 326 IAC 6-2-4(a) (Particulate Emission Limitations for Sources of Indirect Heating), the particulate emissions from the two (2) natural gas-fired boilers, C1 and C2, all constructed after September 21, 1983, shall not exceed the pounds per million British thermal units heat input limit as shown below:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate matter (PM) emitted per million BTU heat input (lb/MMBtu)

Q = Total source maximum operating capacity for both boilers C1 and C2, rating in million BTU per hour heat input.

Q = 13.78 MMBTU/hr, the PM emissions from the two (2) boilers shall be limited to 0.551 lb/MMBtu.

The emission rate limit calculated from the equation above equals:

$$Pt = \frac{1.09}{(8.0 + 5 + 0.78)^{0.26}} = 0.0551 \text{ lbs/MMBtu}$$

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

**REGISTRATION
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3).

| | |
|--------------------------|----------------------------------|
| Company Name: | Sun Polymers International, Inc. |
| Address: | 1751 Arcadia Dr. |
| City: | Columbus, Indiana 47201 |
| Phone Number: | 812-379-4606 |
| Registration No.: | R109-9952-00036 |

- I hereby certify that Sun Polymers International, Inc. is : still in operation.
 no longer in operation.
- I hereby certify that Sun Polymers International, Inc. is : in compliance with the requirements of Registration No. 109-9952-00036.
 not in compliance with the requirements of Registration No. 109-9952-00036.

| |
|---------------------------------------|
| Authorized Individual (typed): |
| Title: |
| Signature: |
| Phone Number: |
| 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: |
| |
| |
| |
| |



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Matthew Niemiec
Sun polymers International, Inc
P.O. Box 249
Mooresville, IN 46158

DATE: December 22, 2010

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

SUBJECT: Final Decision
Notice-Only Change
109-29936-00036

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

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

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

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

Final Applicant Cover letter.dot 11/30/07

Mail Code 61-53

| | | | | |
|----------------------------|---|---|--|--|
| IDEM Staff | MIDENNEY 12/21/2010 Sun Polymers International, Inc. 109-29936-00036 (final) | | AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING | |
| Name and address of Sender |  | Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204 | Type of Mail: CERTIFICATE OF MAILING ONLY | |

| Line | Article Number | Name, Address, Street and Post Office Address | Postage | Handing Charges | Act. Value (If Registered) | Insured Value | Due Send if COD | R.R. Fee | S.D. Fee | S.H. Fee | Rest. Del. Fee | Remarks |
|------|----------------|--|---------|-----------------|----------------------------|---------------|-----------------|----------|----------|----------|----------------|---------|
| 1 | | Matthew Niemiec Sun Polymers International, Inc. PO Box 249 Mooresville IN 46158 (Source CAATS) via confirmed delivery | | | | | | | | | | |
| 2 | | Kevin Harris GM Sun Polymers International, Inc. PO Box 249 Mooresville IN 46158 (RO CAATS) | | | | | | | | | | |
| 3 | | Morgan County Commissioners 180 South Main Street Martinsville IN 46151 (Local Official) | | | | | | | | | | |
| 4 | | Mooresville Town Council 4 E Harrison Street Mooresville IN 46158 (Local Official) | | | | | | | | | | |
| 5 | | Clayton D. & Patricia A. Arthur 5178 Brenda Boulevard Greenwood IN 46143 (Affected Party) | | | | | | | | | | |
| 6 | | Morgan County Health Department 180 S Main Street, Suite 252 Martinsville IN 46151-1988 (Health Department) | | | | | | | | | | |
| 7 | | T. K. Forslund 8147 E. Old St. Rd. 144 Mooresville IN 46158 (Affected Party) | | | | | | | | | | |
| 8 | | David Jones 7977 N. Taylors Rd. Mooresville IN 46158 (Affected Party) | | | | | | | | | | |
| 9 | | Claudia Parker 6761 Centenary Rd. Mooresville IN 46158 (Affected Party) | | | | | | | | | | |
| 10 | | James Swails 6568 E. Rosebud Lane Mooresville IN 46158 (Affected Party) | | | | | | | | | | |
| 11 | | John Thurston 6548 E. Watson Mooresville IN 46158 (Affected Party) | | | | | | | | | | |
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