



Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

December 23, 2004

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

TO: Interested Parties / Applicant
RE: Solae, LLC / 073-18937-00011
FROM: Paul Dubenetzky
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 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, 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 4-21.5-3-7 and IC 13-15-7-3 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 Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) 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.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of a Title V operating permit or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

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.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

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Indianapolis, Indiana 46206-6015
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December 23, 2004

Mr. Dale Perman
Solae, LLC
413 Cressy Avenue
Remington, Indiana 47977

Re: 073-18397-00011
First Significant Permit Modification to
Part 70 No.: T073-12879-00011

Dear Mr. Perman.:

Solae, LLC, was issued a permit on May 14, 2002 for a soy flour and soy protein concentrate processing plant. A letter requesting changes to this permit was received on November 8, 2003. Pursuant to the provisions of 326 IAC 2-7-12, a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of revising the BACT limit for the soybean lecithin process (ethanol extraction), identified as EU01 from a VOC emission limit for overall solvent losses of 6.6 lbs. VOC per ton of lecithin to 20 lbs. VOC per ton of lecithin. The VOC emissions from the existing soybean lecithin process (ethanol extraction) will be increased from 41.0 tons per year to 87.6 tons per year after this modification.

In addition, the Permittee requested a change in the monitoring condition D.1.6(a) to clarify that monitoring is not required when the ethanol extraction equipment is not in operation. Also, since the two (2) existing boilers at the source only burn natural gas, the Permittee requested conditions D.3.5(b) and D.3.6 be deleted.

All other conditions of the permit shall remain unchanged and in effect. Please find attached a copy of the revised permit.



Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Sanobar Durrani, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7810 to speak directly to Ms. Durrani. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, and ask for Duane Van Laningham or extension 3-6878, or dial (317) 233-6878.

Sincerely,
Original signed by

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

ERG/SD

cc: File - Jasper County
U.S. EPA, Region V
Jasper County Health Department
Air Compliance Section Inspector - Wanda Stanfield
Compliance Data Section
Administrative and Development -Sara Cloe
Technical Support and Modeling - Michele Boner



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PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

**Solae, LLC
413 Cressy Avenue
Remington, Indiana 47977**

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

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and re-issuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T073-12879-00011	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: May 14, 2002 Expiration Date: May 14, 2007

First Administrative Amendment No.: 073-17433-00011, issued April 25, 2003

First Significant Permit Modification No.: 073-18397-00011	Pages Affected: 27, 28, 29, 34, 41
Issued by: Original signed by Paul Dubentzky, Branch Chief Office of Air Quality	Issuance Date: December 23, 2004



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SECTION A SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary soy flour and soy protein concentrate process.

Responsible Official:	Dale Perman, Plant Manager
Source Address:	413 Cressy Avenue, Remington, Indiana 47977
Mailing Address:	P.O. Box 127, Remington, Indiana 47977
General Source Phone Number:	(219) 261-2124
SIC Code:	2099
County Location:	Jasper
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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

NOTE: All capacities are considered confidential by the source and are included in a confidential OAQ file.

- (a) One soybean lecithin process (ethanol extraction), all identified as emission unit 01, consisting of the following equipment, all constructed in November, 1999 except where otherwise noted below, and all exhausting through stack L-04:
- (1) One (1) primary evaporator #99-2268, with volatile organic compounds reclaimed by a condenser, identified as SC_{ER};
 - (2) One (1) extractor;
 - (3) One (1) finishing evaporator (Nat. Bd. #BD252), with volatile organic compounds reclaimed by a condenser, identified as SC_{PF};
 - (4) One (1) residue evaporator (Nat. Bd. #BD264), with volatile organic compounds reclaimed by a condenser, identified as SC_R;
 - (5) One (1) miscella tank, identified as #2, constructed in 1998, with a maximum capacity of 1470 gallons;
 - (6) One (1) ethanol work tank, identified as #1, constructed in 1998, with a maximum capacity of 2880 gallons;
 - (7) One (1) fixed roof dome wet storage tank, identified as #3 constructed in 1998, storing alcohol, with volatile organic compounds controlled by a refrigerated vent condenser, identified as RVC, with a maximum capacity of 1175 gallons;

- (8) One (1) fixed roof dome storage tank for storing lecithin, identified as #4, with a maximum capacity of 1470 gallons; and
 - (9) One (1) bulk container storing denatured alcohol;
- (b) One (1) eighteen (18) million British thermal units per hour spray dryer burning natural gas, identified as #2 SD, constructed in 1947, with particulate emissions controlled by a baghouse and NOx emissions controlled by a low NOx burner, exhausting through stack P-1;
 - (c) One (1) ten (10) million British thermal units per hour spray dryer burning natural gas, identified as #3 SD, constructed in 1947, with particulate emissions controlled by a baghouse and with NOx emissions controlled by a low NOx burner, and exhausting through stack P-2;
 - (d) One (1) twenty-four (24) million British thermal units per hour spray dryer burning natural gas, identified as #1 SD, constructed in 1978, with particulate emissions controlled by a baghouse and with NOx emissions controlled by a low NOx burner; and exhausting through stack P-8;
 - (e) One (1) twenty-four (24) million British thermal units per hour spray dryer burning natural gas, identified as #4 SD, constructed in 1991, with particulate emissions controlled by a baghouse and with NOx emissions controlled by a low NOx burner, and exhausting through stack P-14;
 - (f) One (1) 35.4 million British thermal units per hour spray dryer burning natural gas, identified as #5 SD, constructed in 2000, with particulate emissions controlled by two (2) cyclones and one (1) baghouse, with NOx emissions controlled by a low NOx burner, and exhausting through stack P-20. A heat recovery unit is used in conjunction with the spray dryer baghouse;
 - (g) One (1) natural gas-fired North American boiler, constructed in 1978, with a maximum capacity of 29.4 million British thermal units per hour, and exhausting through stack P-12; and
 - (h) One (1) natural gas-fired Centrolex boiler constructed in 1994, with a maximum capacity of twenty-five (25) million British thermal units per hour, and exhausting through stack L-01.
- A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]
This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):
- (a) Emission units with PM and PM10 emissions less than five (5) tons per year, SO₂, NO_x, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) tons per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year:
 - (1) One (1) grinding and packaging system with emissions controlled by a baghouse considered integral to the process (326 IAC 6-3-2);
 - (2) One (1) soy protein product receiver, controlled by a product baghouse considered integral to the process and exhausting to stack P-21 (326 IAC 6-3-2);

- (3) One (1) totally enclosed soy protein grinder discharging to a ground product receiver considered integral to the process (326 IAC 6-3-2);
 - (4) One (1) integral soy protein ground product receiver, controlled by a remote baghouse and exhausting to stack P-22 (326 IAC 6-3-2);
 - (5) One (1) soy protein remote receiver, controlled by a remote baghouse considered integral to the process and exhausting to stack P-23 (326 IAC 6-3-2);
 - (6) One (1) soy protein reject bin, controlled by a reject bin baghouse considered integral to the process and exhausting to stack P-24 (326 IAC 6-3-2);
 - (7) One (1) soy protein mixer, controlled by a mixer baghouse considered integral to the process and exhausting to stack P-25 (326 IAC 6-3-2);
 - (8) One (1) soy protein packing surge receiver, controlled by a packaging surge receiver baghouse, considered integral to the process and exhausting to stack P-26 (326 IAC 6-3-2);
 - (9) One (1) tote fill receiver, controlled by a tote fill baghouse considered integral to the process, and exhausting to stack P-27 (326 IAC 6-3-2);
 - (10) One (1) packaging aspiration receiver, controlled by a packaging aspiration receiver baghouse considered integral to the process, and exhausting to stack P-28 (326 IAC 6-3-2);
 - (11) One (1) grinder (326 IAC 6-3-2);
 - (12) One (1) classifier (326 IAC 6-3-2); and
 - (13) The following equipment related to maintenance activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment (326 IAC 6-3-2 covered by Condition C.1);
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (326 IAC 8-3); and
 - (c) Paved and unpaved roads and parking lots with public access (326 IAC 6-4), (326 IAC 6-5).

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22); and
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

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

B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the original date, 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.

B.3 Enforceability [326 IAC 2-7-7]

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.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(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 nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.5 Severability [326 IAC 2-7-5(5)]

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

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

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

B.7 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)] [326 IAC 2-7-6(6)]

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) 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 the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality. [326 IAC 2-7-5(6)(E)]
- (c) 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 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
- (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; or
 - (3) Denial of a permit renewal application.
- (b) Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act.
- (c) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (d) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

- (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 a responsible official 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.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the

shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance

causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept 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.12 Emergency Provisions [326 IAC 2-7-16]

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,
Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

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

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced 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 Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(7)]

B.14 Prior Permits Superseded [326 IAC 2-1.1-9.5]

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

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that

exists independent of this permit shall be reported according to the schedule stated in the applicable requirement and does need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit:
- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination

[326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-4]

- (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 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]
- (1) A timely renewal application is one that is:
- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) 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.
- (2) If IDEM, OAQ, upon receiving a timely and complete 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, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3]
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 2-7 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.
- (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]
If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 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, P.O. Box 6015
Indianapolis, Indiana 46206-6015
- Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

- (b) Notwithstanding 326 IAC 2-7-12(b)(1)(D)(i) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

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

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

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-7-20(b), (c)(1), and (e)(2).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;

- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2]

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 Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy any records that must be kept under the conditions of this permit;
- (c) Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Billing, Licensing and Training Section (BLT)), to determine the appropriate permit fee.

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314]

Notwithstanding the conditions of this permit that state specific methods that may be used to demonstrate compliance with, or a violation of, applicable requirements, any person (including the Permittee) may also use other credible evidence to demonstrate compliance with, or a violation of, any term or condition of this permit.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- C.1 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]
Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- C.2 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.3 Open Burning [326 IAC 4-1] [IC 13-17-9]
The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.
- C.4 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. 326 IAC 9-1-2 is not federally enforceable.
- C.5 Fugitive Dust Emissions [326 IAC 6-4]
The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.
- C.6 Operation of Equipment [326 IAC 2-7-6(6)]
Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.
- 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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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 licenced workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (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 14-10-4, 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) **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 that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

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, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (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 the "responsible official" as defined by 326 IAC 2-7-1(34).
- (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 source 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. 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 2-7-5(1)] [326 IAC 2-7-6(1)]

C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.11 Maintenance of Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less often than once an hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.12 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.13 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (" 2%) of full scale reading.
- (b) Whenever a condition in this permit requires the measurement of a temperature and flow rate, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (" 2%) of full scale reading.
- (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ninety (90) days after the date of issuance of this permit.

The ERP does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.16 Compliance Response Plan - Preparation, Implementation, Records and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
 - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
 - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
 - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so

long as the Permittee documents such response steps in accordance with this condition.

- (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
- (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instance when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating except for time necessary to perform quality assurance and maintenance activities.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

- (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 and 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 documents submitted pursuant to this condition do require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

(a) In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), starting in 2007 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- (1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6-4(a);
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) (Regulated pollutant, which is used only for purposes of Section 19 of this rule”) from the source, for purpose fee assessment.

The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(b) The emission statement 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.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(a) Records of all required data, reports and support information 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 kept 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.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

(a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

- (b) The report required in (a) of this condition and 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, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) 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 the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.21 Compliance with 40 CFR 82 and 326 IAC 22-1

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

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (a) One soybean lecithin process (ethanol extraction), all identified as emission unit 01, consisting of the following equipment, all constructed in November, 1999, and all exhausting through stack L-04:
- (1) One (1) primary evaporator #99-2268, with volatile organic compounds reclaimed by a condenser, identified as SC_R;
 - (2) One (1) extractor;
 - (3) One (1) finishing evaporator (Nat. Bd. #BD252), with volatile organic compounds reclaimed by a condenser, identified as SC_{PF};
 - (4) One (1) residue evaporator (Nat. Bd. #BD264), with volatile organic compounds reclaimed by a condenser, identified as SC_R;
 - (5) One (1) miscella tank, identified as #2, constructed in 1998, with a maximum capacity of 1470 gallons;
 - (6) One (1) ethanol work tank, identified as #1, constructed in 1998, with a maximum capacity of 2880 gallons;
 - (7) One (1) fixed roof dome wet storage tank, identified as #3 constructed in 1998, storing alcohol, with volatile organic compounds controlled by a refrigerated vent condenser, identified as RVC, with a maximum capacity of 1175 gallons;
 - (8) One (1) fixed roof dome storage tank for storing lecithin, identified as #4, with a maximum capacity of 1470 gallons; and
 - (9) One (1) bulk container storing denatured alcohol.

(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 2-7-5(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6][326 IAC 2-4.1-1]

Pursuant to CP073-9923-00011, issued on January 14, 1999, 326 IAC 8-1-6 (New Facilities; General Reduction Requirements), and 326 IAC 2-4.1-1 (Major Sources of HAP, New Source Toxic Control), the following limitations apply to the soybean lecithin process (ethanol extraction):

- (a) The BACT for the lecithin vent gas and overall solvent losses shall be as follows:

Facility/Process	Control Description	VOC Emission Limit*
Vent gas from Lecithin Process	Refrigerated Vent Condenser	2.60 lb VOC/ ton of lecithin
Overall Solvent Losses	None	20.0 lb VOC/ton of lecithin

* The VOC emission limit of 20.0 lb VOC/ton of lecithin includes the point source emission limit of 2.60 lbs VOC/ton of lecithin.

(b) BACT and MACT for the fugitive volatile organic compounds loss shall include the following enhanced inspection, maintenance, and repair program for the solvent extraction portion:

(1) The Permittee shall determine compliance with the standards in the table below by using the procedures of 40 CFR Part 60, Appendix A, Method 21. The instrument shall be calibrated before each day of its use by the procedures as specified in Method 21. A leak is defined as an instrument reading of 500 ppm above background or greater, except for flanges, and connectors where a leak is defined as 10,000 ppm above background.

Equipment	Leak Standard (ppm)
Pumps	500
Valves	500
Pressure Relief Devices	500
Flanges, Connectors, and Seals	10,000

(2) The Permittee shall tag all detected leaks with a weatherproof and readily visible identification tag with a distinct number. Once a leaking component is detected, first-attempt repairs must be done within five days and be completed within 15 days of detecting the leaking components. If the repair cannot be accomplished within 15 days, then the Permittee shall send a notice of inability to repair to the OAQ within 20 days of detecting the leak. The notice must be received by the Technical Support and Modeling and Compliance Branch, Office of Air Quality within 20 days after the leak was detected. At a minimum, the notice shall include the following:

- (A) Equipment, operator, and instrument identification number;
- (B) Date of leak detection;
- (C) Measured concentration (ppm) and background (ppm);
- (D) Leak identification number associated with the corresponding tag; and
- (E) Reason of inability to repair within 5 to 15 days of detection.

D.1.2 PSD Minor Limit [326 IAC 2-2]

The limits contained in 326 IAC 8-1-6 limit VOC emissions to below two hundred fifty (250) tons per year. The rule limits VOC emissions to less than 2.6 lb/ton of lecithin and overall solvent emissions to less than 20 lb/ton of lecithin. At maximum lecithin throughput (2,000 lb/hr), VOC emissions are limited to less than 87.6 tons per year from the soybean lecithin process (ethanol extraction) and less than 91.9 tons per year from the entire source. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) are not applicable.

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.1.4 Volatile Organic Compounds (VOC)

Pursuant to CP073-9923-00011, issued January 14, 1999, and in order to comply with Condition D.1.1, the refrigerated vent condenser shall operate at all times that the soybean lecithin process (ethanol extraction) is in operation.

D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition D.1.1, during the period between 30 and 36 months after issuance of this permit, the Permittee shall perform VOC testing utilizing Methods 25 (40 CFR 60, Appendix A) for VOC or other methods as approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.

D.1.6 Monitoring

In order to document compliance with Condition D.1.1, the Permittee shall comply with the following requirements for the refrigerated vent condenser of the soybean lecithin process (ethanol extraction):

- (a) The Permittee shall monitor and record the refrigerant flow rate and temperature of the refrigerated vent condenser as an hourly average when the ethanol extraction process is in operation. Unless operated under conditions, for which the Compliance Response Plan specifies otherwise, the temperature shall be maintained at less than 10 degrees Fahrenheit or the range established during the latest stack test. The refrigerant flow rate shall be maintained within the range established during the latest stack test. This may be accomplished by using an electronic data management system (EDMS) or by taking manual readings.
- (b) In the event that a refrigerated condenser's failure has been observed, an inspection shall be conducted. Based on the findings of the inspection, any corrective actions shall be devised within eight (8) hours of discovery and shall include a timetable for completion.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.7 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1(a) and D.1.2, the Permittee shall maintain records of the total volatile organic compounds (VOC) emissions calculated monthly from solvent loss, lecithin processed, and their ratio (in pounds of VOC per ton of lecithin processed).
- (b) To document compliance with Condition D.1.1(b), the Permittee shall maintain records of the following to verify compliance with the enhanced inspection, maintenance, and repair program:
 - (1) Equipment inspected;
 - (2) Date of inspection; and
 - (3) Determination of whether a leak was detected.

If a leak is detected, the Permittee shall record the following information to verify compliance with the enhanced inspection, maintenance, and repair program:

- (1) The equipment, operator, and instrument identification number;
- (2) Measured concentration;
- (3) Leak identification number associated with the corresponding tag;

- (4) Date of repair;
 - (5) Reason for non-repair if unable to repair within 5 to 15 days of detection;
 - (6) Maintenance recheck if repaired - date, concentration, background; and
 - (7) Any appropriate comments.
- (c) To document compliance with Condition D.1.6, the Permittee shall maintain the records of the refrigerant flow rate and temperature across the refrigerated vent condenser.
 - (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.8 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (b) One (1) eighteen (18) million British thermal units per hour spray dryer burning natural gas, identified as #2 SD, constructed in 1947, with particulate emissions controlled by a baghouse and NOx emissions controlled by a low NOx burner, exhausting through stack P-1;
- (c) One (1) ten (10) million British thermal units per hour spray dryer burning natural gas, identified as #3 SD, constructed in 1947, with particulate emissions controlled by a baghouse and with NOx emissions controlled by a low NOx burner, and exhausting through stack P-2;
- (d) One (1) twenty-four (24) million British thermal units per hour spray dryer burning natural gas, identified as #1 SD, constructed in 1978, with particulate emissions controlled by a baghouse and with NOx emissions controlled by a low NOx burner; and exhausting through stack P-8;
- (e) One (1) twenty-four (24) million British thermal units per hour spray dryer burning natural gas, identified as #4 SD, constructed in 1991, with particulate emissions controlled by a baghouse and with NOx emissions controlled by a low NOx burner, and exhausting through stack P-14;
- (f) One (1) 35.4 million British thermal units per hour spray dryer burning natural gas, identified as #5 SD, constructed in 2000, with particulate emissions controlled by two (2) cyclones and one (1) baghouse, with NOx emissions controlled by a low NOx burner, and exhausting through stack P-20. A heat recovery unit is used in conjunction with the spray dryer baghouse;

(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 2-7-5(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the five (5) spray dryers shall not exceed the pounds per hour limit calculated using the following equation.

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

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

The individual emission limits and process weight rates are included in a IDEM, OAQ confidential file.

D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.2.3 Particulate Matter (PM)

In order to comply with Condition D.2.1, the baghouses for PM control shall be in operation and control emissions from the five spray dryers at all times that the spray dryers are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.4 Visible Emissions Notations

- (a) Once per shift visible emission notations of the spray dryer stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.2.5 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the spray dryers, at least once per shift when the spray dryers are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouses is outside the normal range of 0.25 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

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

D.2.6 Baghouse Inspections

An inspection shall be performed once per year of all bags controlling the spray dryers when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.2.7 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take

response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.8 Record Keeping Requirements

- (a) To document compliance with Condition D.2.4, the Permittee shall maintain records of once per shift visible emission notations during normal daylight operations of the spray dryer stack exhaust.
- (b) To document compliance with Condition D.2.5, the Permittee shall maintain the following:
 - (1) Once per shift records of the total static pressure drop during normal operation when venting to the atmosphere.
 - (2) Documentation of the dates vents are redirected.
- (b) To document compliance with Condition D.2.6, the Permittee shall maintain records of the results of the inspections required under Condition D.2.6 and the dates the vents are redirected.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (g) One (1) natural gas-fired North American boiler, constructed in 1978, with a maximum capacity of 29.4 million British thermal units per hour, and exhausting through stack P-12; and
- (h) One (1) natural gas-fired Centrolex boiler, constructed in 1994, with a maximum capacity of twenty-five (25) million British thermal units per hour, and exhausting through stack L-01.

(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 2-7-5(1)]

D.3.1 Particulate Matter Limitation (PM) [326 IAC 6-2-3]

The North American boiler is subject to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating) because it was constructed in 1978 which is during the applicability period of the rule, after June 8, 1972 and prior to September 21, 1983. Pursuant to this rule, the particulate matter emissions are limited to less than 0.6 pounds per million Btu.

D.3.2 Particulate Matter Limitation (PM) [326 IAC 6-2-4]

The Centrolex boiler is subject to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating) because it was constructed in 1994 which is after the applicability date of the rule, September 21, 1983. Pursuant to this rule, the particulate matter emissions are limited to less than 0.39 pounds per million Btu.

D.3.3 Particulate Matter Limitation [326 IAC 12-1]

Although the Centrolex boiler is subject to 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial - Commercial - Institutional Steam Generating Units), there are no emission limitations applicable to this boiler, only record keeping requirements described in D.3.5.

D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.5 Record Keeping Requirements

- (a) Pursuant to 40 CFR Part 60, Subpart Dc, the Permittee shall record and maintain records of amounts of fuel combusted during each day for the Centrolex boiler; and
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Insignificant Activities

- (a) Emission units with PM and PM10 emissions less than five (5) tons per year, SO₂, NO_x, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) tons per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year:
- (1) One (1) grinding and packaging system with emissions controlled by a baghouse considered integral to the process (326 IAC 6-3-2);
 - (2) One (1) soy protein product receiver, controlled by a product baghouse considered integral to the process and exhausting to stack P-21 (326 IAC 6-3-2);
 - (3) One (1) totally enclosed soy protein grinder discharging to a ground product receiver considered integral to the process (326 IAC 6-3-2);
 - (4) One (1) integral soy protein ground product receiver, controlled by a remote baghouse and exhausting to stack P-22 (326 IAC 6-3-2);
 - (5) One (1) soy protein remote receiver, controlled by a remote baghouse considered integral to the process and exhausting to stack P-23 (326 IAC 6-3-2);
 - (6) One (1) soy protein reject bin, controlled by a reject bin baghouse considered integral to the process and exhausting to stack P-24 (326 IAC 6-3-2);
 - (7) One (1) soy protein mixer, controlled by a mixer baghouse considered integral to the process and exhausting to stack P-25 (326 IAC 6-3-2);
 - (8) One (1) soy protein packing surge receiver, controlled by a packaging surge receiver baghouse, considered integral to the process and exhausting to stack P-26 (326 IAC 6-3-2);
 - (9) One (1) tote fill receiver, controlled by a tote fill baghouse considered integral to the process, and exhausting to stack P-27 (326 IAC 6-3-2);
 - (10) One (1) packaging aspiration receiver, controlled by a packaging aspiration receiver baghouse considered integral to the process, and exhausting to stack P-28 (326 IAC 6-3-2);
 - (11) One (1) grinder (326 IAC 6-3-2); and
 - (12) One (1) classifier (326 IAC 6-3-2).

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

D.4.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the listed units shall not exceed allowable PM emission rate based on the following equation:

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

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

The individual emission limits and process weight rates are included in a IDEM, OAQ confidential file.

The baghouses and cyclones for particulate control shall be in operation at all times that the listed units are in operation.

SECTION D.5 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Insignificant Activities

- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (326 IAC 8-3);

(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 2-7-5(1)]

D.5.1 Cold Cleaner Operation

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator of facilities constructed after January 1, 1980 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; and
- (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.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Solae, LLC
Source Address: 413 Cressy Avenue, Remington, Indiana 47977
Mailing Address: 413 Cressy Avenue, Remington, Indiana 47977
Part 70 Permit No.: 073-12879-00011

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Solae, LLC
Source Address: 413 Cressy Avenue, Remington, Indiana 47977
Mailing Address: 413 Cressy Avenue, Remington, Indiana 47977
Part 70 Permit No.: 073-12879-00011

This form consists of 2 pages

Page 1 of 2

<p>9 This is an emergency as defined in 326 IAC 2-7-1(12)</p> <ul style="list-style-type: none">C The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); andC The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.

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

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



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

Page 2 of 2

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

Form Completed by:

Title / Position:

Date:

Phone:

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY Compliance Data Section

Part 70 Quarterly Report

Source Name: Solae, LLC
 Source Address: 413 Cressy Avenue, Remington, Indiana 47977
 Mailing Address: P.O. Box 127, Remington, Indiana 47977
 Part 70 Permit No.: T 073-12879-00011
 Facility: Soybean lecithin process (ethanol extraction)
 Parameter: vent gas
 Limit: 2.6 lb VOC/ton of lecithin

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
 Deviation has been reported on:

Submitted by:
 Title / Position:
 Signature:
 Date:
 Phone:

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 Compliance Data Section**

Part 70 Quarterly Report

Source Name: Solae, LLC
 Source Address: 413 Cressy Avenue, Remington, Indiana 47977
 Mailing Address: P.O. Box 127, Remington, Indiana 47977
 Part 70 Permit No.: T 073-12879-00011
 Facility: Soybean lecithin process (ethanol extraction)
 Parameter: Overall solvent losses
 Limit: 20.0 lb solvent/ton of lecithin

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
 Deviation has been reported on:

Submitted by:
 Title / Position:
 Signature:
 Date:
 Phone:

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Solae, LLC
Source Address: 413 Cressy Avenue, Remington, Indiana 47977
Mailing Address: 413 Cressy Avenue, Remington, Indiana 47977
Part 70 Permit No.: 073-12879-00011

Months: _____ to _____ Year: _____

<p>This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<p><input checked="" type="radio"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.</p>	
<p><input checked="" type="radio"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD</p>	
<p>Permit Requirement (specify permit condition #)</p>	
<p>Date of Deviation:</p>	<p>Duration of Deviation:</p>
<p>Number of Deviations:</p>	
<p>Probable Cause of Deviation:</p>	
<p>Response Steps Taken:</p>	
<p>Permit Requirement (specify permit condition #)</p>	
<p>Date of Deviation:</p>	<p>Duration of Deviation:</p>
<p>Number of Deviations:</p>	
<p>Probable Cause of Deviation:</p>	
<p>Response Steps Taken:</p>	

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

Form Completed By:

Title/Position:

Date:

Phone:

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Significant Permit Modification to a Part 70 Operating Permit

Source Background and Description

Source Name:	Solae, LLC
Source Location:	413 Cressy Avenue, Remington, Indiana 47977
County:	Jasper
SIC Code:	2099
Operation Permit No.:	T073-12879-00011
Operation Permit Issuance Date:	May 14, 2002
Significant Permit Modification No.:	073-18397-00011
Permit Reviewer:	ERG/SD

The Office of Air Quality (OAQ) has reviewed a modification application from Solae, LLC, relating to the operation of a soy flour and soy protein concentrate processing plant.

History

Solae, LLC is an existing soy flour and soy protein concentrate processing plant and operating under the provisions of Part 70 Permit Program (permit no. T073-12879-00011) issued on May 14, 2002. On November 8, 2003, Solae, LLC submitted an application to IDEM, OAQ requesting a modification to the VOC emission limit to comply with the Best Available Control Technology (BACT) pursuant to 326 IAC 8-1-6 for the existing soybean lecithin process (ethanol extraction), identified as EU01.

Summary of Modification

An inspection performed at the source on August 26, 2003 found the source out of compliance with the current BACT limit in their Title V permit (Condition D.1.1 (a) - the overall solvent losses limit of 6.6 pounds per ton of lecithin). The Permittee requested to revise this emission limit from 6.6 pounds per ton of lecithin to 20 pounds per ton of lecithin, including the vent gas from lecithin process. This revision results in a change in the potential to emit of VOC from 40 tons per year to 87.6 tons per year. Since there is a significant increase in potential VOC emissions, IDEM, OAQ reviewed the past BACT analysis to bring it upto date to include the current modification (see Appendix A).

Enforcement Issue

IDEM is aware that the soybean lecithin process (ethanol extraction), identified as EU01, is not in compliance with the following emission limitation:

Facility/Process	Control Description	VOC Emission Limit
Overall Solvent Losses	None	6.60 lb. solvent / ton of lecithin

IDEM is reviewing this matter and has taken appropriate action.

Recommendation

The staff recommends to the Commissioner that the Significant Permit Modification 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 November 8, 2003.

Emission Calculations

There are no modifications to the existing units and no new emissions unit are added during this review process, only revision to the BACT limit. Therefore, the potential to emit for each unit remains unchanged and can be found in the Technical Support Document (TSD) for T073-12879-00011, issued on May 14, 2002.

Potential to Emit from the Entire Source

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

Pollutant	Potential To Emit (tons/year)
PM	less than 100
PM10	less than 100
SO ₂	less than 100
VOC	Less than 250
CO	less than 100
NO _x	less than 100

Note 1: For the purpose of determining Title V applicability for particulates, PM10, not PM, is the regulated pollutant in consideration.

Note 2: PTE of all criteria pollutants were from the TSD to TV permit No.: T073-12879-00011, issued May 14, 2002.

HAPs	Potential To Emit (tons/year)
TOTAL	*

* Greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for combination of HAPs.

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of VOC is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) Fugitive Emissions
 Since this type of operation is not in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Potential to Emit of the Modification

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

Emission Unit	Potential To Emit (tons/year)						
	PM	PM10	SO ₂	VOC	CO	NO _x	HAPs
Existing Emission Units, excluding the lecithin process	84.9	84.9	0.54	4.35	65.6	56.1	Negligible
Lecithin Process	0.00	0.00	0.00	* Less than 87.6	0.00	0.00	**
Total Emissions after modification	84.9	84.9	0.54	Less than 91.9	65.6	56.1	**

* This limit is based on the revised 326 IAC 8-1-6 determination which limits VOC emissions from the vent gas lecithin process to less than 2.6 lbs. VOC per ton, and from overall solvent losses to less than 20 lbs. VOC per lecithin. The maximum throughput rate of lecithin is 2,000 lbs. per hour.

** Greater than 10 for a single HAP and greater than 25 for combination of HAPs.

Justification for the Modification

The Part 70 Operating permit is being modified through a Part 70 Significant Permit Modification. This modification is being performed pursuant to 326 IAC 2-7-12(d) as the source is requesting to change a case-by-case determined emission limit.

County Attainment Status

The source is located in Jasper County.

Pollutant	Status
PM10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Jasper County has been designated as attainment or unclassifiable for ozone.
- (b) Jasper County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) Fugitive Emissions
 Since this type of operation is not in one of the 28 listed source categories under 326 IAC 2-2, and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD applicability.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this modification.
- (b) The requirements of 40 CFR Part 63, Subpart GGGG (National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production) do not apply to this source because this source is not a vegetable oil production process. This source extracts lecithin from soybeans.
- (c) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this modification.
- (d) The requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are not applicable to this source because although the source is a major source of HAPs (i.e., the source has the potential to emit 10 tons per year or greater of a single HAP), the source does not include one or more units that belong to one or more source categories affected by the Section 112(j) MACT Hammer date of May 15, 2002.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This source was constructed prior to August 7, 1977 and is not in 1 of the 28 source categories. At construction the potential emissions for all criteria pollutants were below major source threshold levels of 250 tons per year. The source was modified in 1998 and 1999 to construct the ethanol extraction system, after which the potential to emit VOC greater than 250 tons per year. However, the limits contained in TV permit no. 073-12879-00011 pursuant to 326 IAC 8-1-6 (New facilities: general reduction requirements) limited VOC emissions to below 250 tons per year. Therefore, this existing source is a PSD minor source for VOC. On November 8, 2003 the Permittee submitted an application requesting a revision to the BACT limit because the Permittee could not consistently demonstrate compliance with the solvent emissions limit of 6.6 pounds per ton of lecithin.

IDEM, OAQ has determined the Best Available Control Technology (BACT) for this revision as shown in Appendix A. Pursuant to 326 IAC 8-1-6, the VOC emissions from the vent gas lecithin process shall be limited to less than 2.60 pounds per ton of lecithin, and VOC emissions from overall solvent losses shall be limited to less than 20.0 pounds per ton of lecithin (see Appendix A for the overall solvent losses breakdown estimation). The VOC emission limit from the overall solvent losses includes the vent gas lecithin process emission limit. At a maximum lecithin throughput of 2,000 pounds per hour, the potential to emit VOC from the soybean lecithin process (ethanol extraction), identified as EU01, is equal to 87.6 tons per year, and a total PTE of 91.9 tons per year from the entire source. Therefore, compliance with 326 IAC 8-1-6 ensures that the source is a minor source under PSD.

The potential to emit of all other criteria pollutants are less than 250 tons per year.

326 IAC 5-1 (Opacity Limitations)

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

- (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.

326 IAC 2-4.1-1 (Major Sources of HAPs: New Source Toxic Control)

Pursuant to CP073-9923-00011 issued on January 14, 1999, the soybean lecithin (ethanol extraction) process, identified as EU01 is subject to 326 IAC 2-4.1-1 (Major Sources of HAPs: New Source Toxic Control) because the process is a major source of hazardous air pollutants (HAPs). The Permittee shall continue to comply with the MACT requirements previously included in the source's construction permit which are not affected by this modification.

State Rule Applicability - Soybean Lecithin Process (Ethanol Extraction)

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

Pursuant to CP073-9923-00011, issued on January 14, 1999, the soybean lecithin process (ethanol extraction), identified as EU01, is subject to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) because it has the potential VOC emissions greater than twenty-five (25) tons per year. Pursuant to 326 IAC 8-1-6, this lecithin process is required to control VOC emissions with the Best Available Control Technology (BACT). The BACT for this process was determined in CP 073-9923-00011, and has been revised as shown in Appendix A follows:

- (a) The BACT for the lecithin vent gas and overall solvent losses shall be as follows:

Facility/Process	Control Description	VOC Emission Limit
Vent gas from Lecithin Process	Refrigerated Vent Condenser with 97 % efficiency	2.60 lbs. VOC/ ton of lecithin
Overall Solvent Losses *	None	20.0 lbs. VOC / ton of lecithin

* The VOC emission limit from the overall solvent losses includes the limit from the vent gas from lecithin process (see Appendix A for the overall solvent losses breakdown estimation).

- (b) BACT and MACT for the fugitive volatile organic compounds loss shall include the following enhanced inspection, maintenance, and repair program for the solvent extraction portion:

The Permittee shall determine compliance with the standards in the table below by using the procedures of 40 CFR Part 60, Appendix A, Method 21. The instrument shall be calibrated before each day of its use by the procedures as specified in Method 21. A leak is defined as an instrument reading of 500 ppm above background or greater, except for flanges, and connectors where a leak is defined as 10,000 ppm above background.

Equipment	Leak Standard (ppm)
Pumps	500
Valves	500
Pressure Relief Devices	500
Flanges, Connectors, and Seals	10,000

- (2) The Permittee shall tag all detected leaks with a weatherproof and readily visible identification tag with a distinct number. Once a leaking component is detected, first-attempt repairs must be done within five days and be completed within 15 days of detecting the leaking components. If the repair cannot be accomplished within 15 days, then the Permittee shall send a notice of inability to repair to the OAQ within 20 days of detecting the leak. The notice must be received by the Technical Support and Modeling and Compliance Branch, Office of Air Quality within 20 days after the leak was detected. At a minimum, the notice shall include the following:

- (A) Equipment, operator, and instrument identification number;

- (B) Date of leak detection;
 - (C) Measured concentration (ppm) and background (ppm);
 - (D) Leak identification number associated with the corresponding tag; and
 - (E) Reason of inability to repair within 5 to 15 days of detection.
- (3) The Permittee shall maintain records of the following to verify compliance with the enhanced inspection, maintenance, and repair program;
- (A) Equipment inspected;
 - (B) Date of inspection; and
 - (C) Determination of whether a leak was detected.
- (4) If a leak is detected, the Permittee shall record the following information to verify compliance with the enhanced inspection, maintenance, and repair program:
- The equipment, operator, and instrument identification number;
- (B) Measured concentration;
 - (C) Leak identification number associated with the corresponding tag;
 - (D) Date of repair;
 - (E) Reason for non-repair if unable to repair within 5 to 15 days of detection;
 - (F) Maintenance recheck if repaired - date, concentration, background; and
 - (G) Any appropriate comments.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

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

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

1. The soybean lecithin process (ethanol extraction) has applicable compliance monitoring

conditions as specified below:

- (a) The Permittee shall monitor and record the refrigerant flow rate and temperature of the refrigerated vent condenser at least once per day when the ethanol extraction process is in operation. Unless operated under conditions, for which the Compliance Response Plan specifies otherwise, the temperature shall be maintained at less than 10⁰ Fahrenheit or the range established during the latest stack test. The refrigerant flow rate shall be maintained within the range established during the latest stack test. This may be accomplished by using an electronic data management system (EDMS) or by taking manual readings. When for any one reading, the temperature is more than the normal minimum of 10⁰ Fahrenheit, or a temperature established during the latest stack test; and when the flow rate is outside the range established during the latest stack test; the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan, Implementation, Preparation, Records, and Reports. A temperature that is outside the above mentioned minimum, or a flow rate that is outside the established range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.
- (b) In the event that a refrigerated condenser's failure has been observed, an inspection shall be conducted. Based on the findings of the inspection, any corrective actions shall be devised within eight (8) hours of discovery and shall include a timetable for completion.

These monitoring conditions are necessary because the refrigerated vent-condensor for the soybean lecithin process (ethanol extraction) must operate properly to ensure compliance with 326 IAC 8-1-6 (BACT), 326 IAC 2-4.1 (MACT), and 326 IAC 2-2 (PSD).

Proposed Changes

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6][326 IAC 2-4.1-1]

...

- (a) The BACT for the lecithin vent gas and overall solvent losses shall be as follows:

Facility/Process	Control Description	VOC Emission Limit*
Vent gas from Lecithin Process	Refrigerated Vent Condenser	2.60 lb VOC/ ton of lecithin
Overall Solvent Losses	None	6.6 20.0 lb solvent VOC/ton of lecithin

***The VOC emission limit of 20.0 lb VOC/ton of lecithin includes the point source emission limit of 2.60 lbs VOC/ton of lecithin.**

...

D.1.2 PSD Minor Limit [326 IAC 2-2] ~~[40 CFR 52.21]~~

The limits contained in 326 IAC 8-1-6 limit VOC emissions to below two hundred fifty (250) tons per year. The rule limits VOC emissions to less than 2.6 lb/ton of lecithin and **overall** solvent emissions to less than ~~6.6~~ **20** lb/ton of lecithin. At maximum lecithin throughput (2,000 pounds per hour), VOC emissions are limited to less than ~~forty one (41)~~ **87.6** tons per year **from the soybean lecithin process (ethanol extraction) and less than 91.9 tons per year from the entire source.** Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) are not applicable.

D.1.6 Monitoring

...

- (a) The Permittee shall monitor and record the refrigerant flow rate and temperature of the refrigerated vent condenser at least once per day **when the ethanol extraction process is in operation**. Unless operated under conditions, for which the Compliance Response Plan specifies otherwise, the temperature shall be maintained at less than 10 degrees Fahrenheit or the range established during the latest stack test. The refrigerant flow rate shall be maintained within the range established during the latest stack test. This may be accomplished by using an electronic data management system (EDMS) or by taking manual readings. ~~The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Response Plan, Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.~~ **When for any one reading, the temperature is more than the normal minimum of 10⁰ Fahrenheit, or a temperature established during the latest stack test; and when the flowrate is outside the range established during the latest stack test; the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan, Implementation, Preparation, Records, and Reports. A temperature that is outside the above mentioned minimum, or a flow rate that is outside the established range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.**

D.1.7 Record Keeping Requirements

....

- (c) To document compliance with Condition D.1.6, the Permittee shall maintain the records of the refrigerant flow rate and temperature across the **refrigerated** vent condenser.

D.3.5 Record Keeping Requirements

- (a) Pursuant to 40 CFR Part 60, Subpart Dc, the ~~owner or operator of the Centrolex boiler~~ **Permittee** shall record and maintain records of amounts of each fuel combusted during each day **for the Centrolex boiler**; and
- ~~(b) A certification, signed by the responsible official, that certifies all of the fuels combusted during the period. The natural gas-fired boiler certification does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~
- ~~(eb)~~ All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

~~D.3.6 Reporting Requirements~~

~~The natural gas boiler certification shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the six (6) month period being reported.~~

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION**

Source Name: _____ Central Soya Company, Inc.
Source Address: _____ 413 Cressy Avenue, Remington, Indiana 47977
Mailing Address: _____ 413 Cressy Avenue, Remington, Indiana 47977
Part 70 Permit No.: _____ 073-12879-00011

<input checked="" type="checkbox"/> Natural Gas Only <input checked="" type="checkbox"/> Alternate Fuel burned From: _____ To: _____
--

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: _____
Phone: _____
Date: _____

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Data Section**

Part 70 Quarterly Report

Source Name: Solae, LLC
Source Address: 413 Cressy Avenue, Remington, Indiana 47977
Mailing Address: P.O. Box 127, Remington, Indiana 47977
Part 70 Permit No.: T 073-12879-00011
Facility: Soybean lecithin process (ethanol extraction)
Parameter: Overall solvent losses
Limit: ~~20.0~~ 6.6 lb solvent/ton of lecithin

...

Upon further review, the IDEM, OAQ has decided to make the following revisions to the permit:

1. This source is located in Jasper County and required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program. Therefore, this source is subject to 326 IAC 2-6 (Emission Reporting). In accordance with the compliance schedule in 326 IAC 2-6-3, an emission statement must be submitted triennially by July 1 beginning in 2007 and every 3 years after. IDEM, OAQ has updated Condition C.18 (Emission Statement) as shown in the proposed changes section of the Technical Support Document (TSD).

C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

- (a) **In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), starting in 2007 and every three (3) years thereafter, t**The Permittee shall submit by **July 1** an annual emission statement **covering the previous calendar year.** ~~certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall~~ **contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall** meet the following requirements:

- (1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6-4(a); ~~(Emission Reporting);~~
- (2) Indicate estimated actual emissions of ~~other~~ regulated pollutants ~~(as defined by 326 IAC 2-7-1(32))~~ **(Regulated pollutant, which us used only for purposes of Section 19 of this rule")** from the source, for purposes of Part 70 fee assessment.

- ~~(b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:~~

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- ~~(c)~~ **(b)** The annual emission statement 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.

2. The section name in Condition B.24 (c) - Annual Fee Payment has been updated from "I/M & Billing Section" to " Billing, Licensing, and Training Section (BLT)" as shown below:

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

...

- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, ~~Technical Support and Modeling Section~~ **Billing, Licensing, and Training Section (BLT)**), to determine the appropriate permit fee.

3. In accordance with the credible evidence rule (62 Fed. Reg. 8314, Feb 24, 1997); Section 113(a) of the Clean Air Act, 42 U.S. C. § 7413 (a); and a letter from the United States Environmental

Protection Agency (US EPA) to IDEM, OAQ dated May, 18 2004, all permits must address the use of credible evidence; otherwise, US EPA will object to the permits. The following language will be incorporated into the permit to address credible evidence:

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314]

Notwithstanding the conditions of this permit that state specific methods that may be used to demonstrate compliance with, or a violation of, applicable requirements, any person (including the Permittee) may also use other credible evidence to demonstrate compliance with, or a violation of, any term or condition of this permit.

Conclusion

This permit modification shall be subject to the conditions of the attached Part 70 Significant Permit Modification No. 073-18397-00011.

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

Addendum to the
Technical Support Document (TSD)
for a Significant Permit Revision to a
Part 70 Operating Permit

Source Background and Description

Source Name:	Solae, LLC
Source Location:	413 Cressy Avenue, Remington, Indiana 47977
County:	Jasper
SIC Code:	2099
Significant Permit Revision No.:	073-18397-00011
Operation Permit No.:	073-12879-00011
Issuance Date.:	
Permit Reviewer:	ERG/SD

On August 14, 2004 the Indiana Department of Environmental Management (IDEM) and Office of Air Quality (OAQ) had a notice published in the Rensselaer Republican, Rensselaer, Indiana, stating that Solae, LLC had applied for a Significant Permit Revision to its Part 70 Operating Permit (Title V) to operate a stationary soy flour and soy protein concentrate processing plant. The notice also stated that IDEM, 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 September 27, 2004, Solae, LLC submitted comments on the proposed significant permit revision to a Part 70 permit. The summary of the comments and responses are shown below. Deleted text is shown in ~~strikeout~~ and new text is shown in **bold**.

Comment 1:

The Permittee requested that the emission unit descriptions in A.2 (item f) be revised to indicate the addition of a heat recovery unit used in conjunction with the existing baghouse. Section D.2 has been revised to be consistent with the changes shown below.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

...

- (f) One (1) 35.4 million British thermal units per hour spray dryer burning natural gas, identified as #5 SD, constructed in 2000, with particulate emissions controlled by two (2) cyclones and one (1) baghouse, with NO_x emissions controlled by a low NO_x burner, and exhausting through stack P-20;. **A heat recovery unit is used in conjunction with the spray dryer baghouse;**

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

...

- (f) One (1) 35.4 million British thermal units per hour spray dryer burning natural gas, identified as #5 SD, constructed in 2000, with particulate emissions controlled by two (2) cyclones and one (1) baghouse, with NOx emissions controlled by a low NOx burner, and exhausting through stack P-20;. **A heat recovery unit is used in conjunction with the spray dryer baghouse;**

...

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

Upon further review, the IDEM, OAQ has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted). The Table of Contents has been updated as necessary.

1. Since the Permittee is required to monitor and record the refrigerant flow rate pursuant to the provisions of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements), the monitoring condition D.1.6 has been revised to be included under Compliance Determination Requirements as shown below.

~~Compliance Monitoring Requirements [326 IAC 2-7-6(1)]~~**[326 IAC 2-7-5(1)]**

D.1.6 Monitoring

In order to document compliance with Condition D.1.1, the Permittee shall comply with
~~The following monitoring requirements apply to~~ **for** the refrigerated vent condenser of the soybean lecithin process (ethanol extraction):

- (a) The Permittee shall monitor and record the refrigerant flow rate and temperature of the refrigerated vent condenser **at least once per day as an hourly average** when the ethanol extraction process is in operation. Unless operated under conditions, for which the Compliance Response Plan specifies otherwise, the temperature shall be maintained at less than 10 degrees Fahrenheit or the range established during the latest stack test. The refrigerant flow rate shall be maintained within the range established during the latest stack test. This may be accomplished by using an electronic data management system (EDMS) or by taking manual readings. ~~When for any one reading, the temperature is more than the normal minimum of 10^o Fahrenheit, or a temperature established during the latest stack test; and when the flowrate is outside the range established during the latest stack test; the Permittee shall take reasonable response steps in accordance with Section C – Compliance Response Plan, Implementation, Preparation, Records, and Reports. A temperature that is outside the above mentioned minimum, or a flowrate that is outside the established range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.~~
2. Page 2 of 10 of the Technical Support Document (TSD), Emission Calculations, incorrectly stated that "...the potential to emit for each unit remains unchanged..." as was listed in the TSD for T073-12879-00011, issued May 14, 2002. Due to the revision of the BACT limit for the overall solvent losses (from 6.6 lbs VOC per ton of lecithin to 20 lbs VOC per ton of lecithin), the potential to emit of VOC increased from 40 tons per year to 87.6 tons per year.

No changes have been made to the TSD because the IDEM, OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material 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 are part of the record regarding this permit decision.

3. Page 5 of 7 Appendix A (BACT) states the BACT limit for the lecithin vent gas as 2.60 lb VOC per ton of lecithin. This limit was verified by a stack test conducted at the source on April 18, 2000 for the refrigerated vent condenser. The test estimated the VOC emission rate equal to 0.21 lb VOC (Ethanol) per ton lecithin, which is less than the VOC emission limit of 2.60 lb VOC (Ethanol) per ton lecithin. The Permittee shall conduct a stack test in accordance with Condition D.1.5 of the permit to verify the effectiveness of the control efficiency.

No changes have been made to the Appendix A (BACT) because IDEM, OAQ prefers that the Appendix reflect the permit that was on public notice. Changes to the permit or technical support document (e.g., Appendix A) 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 are part of the record regarding this permit decision.

Appendix A

BEST AVAILABLE CONTROL TECHNOLOGY (BACT) DETERMINATION

Source Background and Description

Source Name:	Solae, LLC
Source Location:	413 Cressy Avenue, Remington, Indiana 47977
County:	Jasper
SIC Code:	2099
Operating Permit No.:	T073-12879-00011
Operating Permit Issuance Date:	May 14, 2002
Significant Permit Modification No.:	073-18397-00011
Permit Reviewer:	ERG/SD

BACT Analysis

The Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) has performed the following Best Available Control Technology (BACT) review for a Part 70 Significant Permit Modification to an existing soy flour and soy protein concentrate processing plant, located at 413 Cressy Avenue, Remington, Indiana 47977. This modification includes an increase in VOC emission limit for the following emission unit:

- (a) One soybean lecithin process (ethanol extraction), all identified as emission unit 01, consisting of the following equipment, all constructed in November, 1999 except where otherwise noted below, and all exhausting through stack L-04:
- (1) One (1) primary evaporator #99-2268, with volatile organic compounds reclaimed by a condenser, identified as SC_{ER};
 - (2) One (1) extractor;
 - (3) One (1) finishing evaporator (Nat. Bd. #BD252), with volatile organic compounds reclaimed by a condenser, identified as SC_{PF};
 - (4) One (1) residue evaporator (Nat. Bd. #BD264), with volatile organic compounds reclaimed by a condenser, identified as SC_R;
 - (5) One (1) miscella tank, identified as #2, constructed in 1998, with a maximum capacity of 1470 gallons;
 - (6) One (1) ethanol work tank, identified as #1, constructed in 1998, with a maximum capacity of 2880 gallons;
 - (7) One (1) fixed roof dome wet storage tank, identified as #3 constructed in 1998, storing alcohol, with volatile organic compounds controlled by a refrigerated vent condenser, identified as RVC, with a maximum capacity of 1175 gallons;
 - (8) One (1) fixed roof dome storage tank for storing lecithin, identified as #4, with a maximum capacity of 1470 gallons; and
 - (9) One (1) bulk container storing denatured alcohol;

The source is located in Jasper County which is designated as attainment for all criteria pollutants. In the source's Title V permit (T073-12879-00011, issued May 14, 2002), the volatile organic emissions and HAP emissions from soybean lecithin process (ethanol extraction) were limited to less than 250 tons per twelve (12) consecutive month period pursuant to and 326 IAC 2-4.1-1 (MACT) and 326 IAC 8-1-6 (BACT). On November 8, 2003, the Permittee submitted an application to IDEM, OAQ requesting a modification to the VOC emission limit of overall solvent losses from 6.60 pounds per ton of lecithin to 20.0 pounds per ton of lecithin. The potential to emit of VOC from this modification increases from 41 tons per year to 87.6 tons per year. Due to significant increase in emissions, the BACT analysis included in permit no. CP 073-9923-00011 issued on January 14, 1999 was reviewed to determine any current control technologies, which were more stringent and technically feasible.

IDEM, OAQ conducts BACT analyses in accordance with the *"Top-Down" Best Available Control Technology Guidance Document* outlined in the 1990 draft USEPA *New Source Review Workshop Manual*, which outlines the steps for conducting a top-down BACT analysis. Those steps are listed below:

- (a) Identify all potentially available control options;
- (b) Eliminate technically infeasible control options;
- (c) Rank remaining control technologies by control effectiveness;
- (d) Evaluate the most effective controls and document the results; and
- (e) Select BACT.

Also, in accordance with the "Top-Down" Best Available Control Technology Guidance Document outlined in the 1990 draft U.S EPA New Source Review Workshop Manual, BACT analyses take into account the energy, environmental, and economic impacts on the source. Emission reductions may be achieved through the application of available control techniques, changes in process design, and/or operational limitations. BACT analyses are necessary to demonstrate that the emissions remaining after application of BACT will not cause or contribute to air pollution thereby protecting public health and the environment.

The following BACT determinations are based on the following information:

- (a) The BACT analysis submitted by Solae, LLC on November 18, 2003 and the additional information submitted on March 4, 2008.
- (b) Information from vendors/suppliers;
- (c) The EPA RACT/BACT/LAER (RBLCL) Clearinghouse; and
- (d) State, and Local air quality permits.

VOC BACT

The soybean lecithin (ethanol extraction) process involves the removal of soybean lecithin, a viscous gum like material, from crude soybean oil by extraction with solvent ethanol. Each extraction step is as follows:

- (a) The material to be extracted is prepared to facilitate contact with the solvent.
- (b) The material is washed with the solvent, resulting in an extracted miscella (liquid) phase

containing the lecithin compounds and a residual solid phase. Each fraction contains a portion of the solvent used in the extraction process. The extracted lecithin is the final product, sold to the customers. The residual solid phase is further processed in separate operations.

- (c) The solvent recovery from miscella and the residual solids is achieved by using distillation columns. Vapors from the distillation columns pass through water-cooled condensers and a refrigerated vent condenser, where solvent is recovered for reuse and non-condensable gases are exhausted to the atmosphere.

Step 1 - Identify Control Options

The following available technologies were identified and evaluated to control VOC emissions from the soybean lecithin (ethanol extraction) process:

- (a) IDEM, OAQ and the source searched and reviewed the EPA's RACT/BACT/LAER Clearinghouse (RBLC) and IDEM, OAQ's Air Permits to identify sources with emissions similar to this source. The search identified no sources similar to the operations performed at the source, when using the source's SIC code of 2099. The search query performed using SIC code 20 identified the following:

Source Name	RBLC ID.	Process Description	Pollutant / VOC Emission Limit	BACT	Comment
Archer Daniels Midland Co. Processing	MO-0047	Soyabean Extraction	Hexane (0.25 gal./ton bean)	Mineral Oil Scrubber	PSD-BACT, Compliance to be determined by measuring hexane loss
Archer Daniels Midland Company	GA-0062	Vegetable Oil Production	Hexane (2.93 lb. Hexane/ton soybeans)	Condenser and Mineral Oil Scrubber	PSD-BACT
Southern Soya Corporation	SC-0035	Solvent Extraction System	Hexane 0.0010 lb. VOC/lb. Soybean	Mineral Oil Scrubber	LAER, (100% Capture & 99% removal)
Cargill, Inc.	IA-0029	Corn Oil Extraction	Hexane (2700 lb./day)	Mineral Oil Scrubber	PSD-BACT (95% Efficiency)
Central Soya Company, Inc.		Lecithin Production	Acetone	Carbon Adsorption	BACT-other (97% Recovery)
Florida Distillers	KY-0059	Fermentation, Wine Vinegar	Ethanol	78.0 tons VOC / year	BACT -other

- (b) Solae, LLC had also evaluated a variety of control technologies, including the following:
 - (1) Catalytic Incineration;
 - (2) Recuperative Thermal Incineration;
 - (3) Regenerative Thermal Incineration;

- (4) Condensation;
- (5) Absorption; and
- (6) Carbon Absorption.

Step 2 - Eliminate technically infeasible control options

Based on the results from the RBLC database search, vendor review, and an evaluation of the control technologies, IDEM, OAQ has determined that the use of catalytic incineration, recuperative thermal incineration, regenerative thermal incineration, absorption, and carbon absorption are not technically feasible options for this source for the following reasons:

- (a) The use of catalytic incineration is infeasible because of safety concerns since the process stream is heated by a burner to incinerate temperature, after which the gas passes through a catalyst which enhance the destruction of the VOCs by decreasing the amount of energy required for incineration and lowering the fuel requirements over a standard flame.
- (b) The use of recuperative thermal incinerators is infeasible because it does not efficiently adjust to highly variable process exhaust flow rates such as for the soybean lecithin process, due to poor mixing and varying residence times. Varying concentrations may also cause wide fluctuations of the combustion chamber temperature, adversely affecting the destruction efficiency.
- (c) The regenerative thermal incinerator operates similarly to a recuperative thermal incinerator, except that it preheats the pollutant stream before it enters the combustion chamber. Since the regenerative thermal incineration is efficient if applied over the same range of concentrations, this is not a feasible method because of the varying concentrations of the soybean lecithin process.
- (d) Absorption refers to the selective transfer of material from a gas to a contacting fluid. The separation principle involved is the preferential solubility of a gaseous component in the liquid. Gas absorption involves the diffusion of material from a gas through gas-liquid interface and ultimate dispersion in the liquid. Dispersion or solution of the absorbed material in the liquid may be accomplished by the chemical reaction. The effectiveness of the Absorption is considered to be 95% with much higher concentration of the pollutant entering the system. The lower concentration of the pollutant is not technically feasible. The lecithin process has the flow rate of 50 cfm. Therefore, this option is not a technically feasible.
- (e) Carbon adsorption is the predominant method used for adsorption of VOC streams. The vent gases are cooled as far as practical before entering the carbon adsorption system to minimize the thermal loading on the carbon. These systems, when operating as designed, efficiently removed solvent from the main vent system. The adsorption of volatile organic compounds (such as ethanol) on activated carbon generates heat equivalent to the latent heat of vaporization for the compound being adsorbed. Under the condition listed above, the heat generated by adsorption can accumulate in the bed, causing the temperature to rise to the point where ignition will occur. Good design and control can eliminate overheating the carbon bed, but when the requirement or control fails, overheating will occur. This makes the carbon absorbers a potential source of

ignition. While fires caused by overheating are usually contained by the adsorber vessel, the vessel is directly connected to the process by duct-work which allows a flame-path back to the process, creating an unacceptable risk of an explosion. The most likely time for fire to occur in the adsorber is during process upsets when solvent vapor will fill the duct connecting the process to the adsorber. This option is not technically feasible because of the safety concerns.

Step 3 - Rank remaining control technologies by control effectiveness

The remaining technically feasible approach for controlling VOC emissions from facilities that have a VOC PTE comparable in magnitude to the soybean lecithin (ethanol extraction) process at this source is:

Condensation is the separation of volatile organic compounds (VOC) from an emission stream by either increasing the system pressure or lowering the system temperature below the dew point of the VOC vapor. When condensers are used for air pollution control, they usually operate at the pressure of the emission stream. A refrigeration unit may be required, depending on the temperature necessary to condensate the VOCs from the emission stream. The emission stream enters a heat exchanger, usually of shell-and-tube design, and encounters the cold surface of the tube carrying the refrigerant. The emission stream temperature drops to the dew point of its VOC constituents. The VOC liquefies and drops out of the emission stream.

The “cleaned” emission stream is then vented to the stack while condensed solvent is collected for reuse or disposal. Condensate systems are recommended for emission streams containing between 5,000 and 10,000 ppm. Condensation is affected significantly by the number and nature of the constituents in the emission stream. The greater the variance of components, the greater the range of temperatures that must be maintained to achieve condensation. The effectiveness of a refrigerated vent condenser is considered to be 97.0%.

Step 4 - Evaluate the most effective controls and document results

Since there is only one technically feasible option in place for the source, an economic analysis for the control option was not performed.

Step 5 - Select BACT

Based on the considerations mentioned above, IDEM, OAQ has determined that BACT for soybean lecithin (ethanol extraction) process is as follows:

(a) The BACT for the lecithin vent gas and overall solvent losses shall be as follows:

Facility/Process	Control Description	VOC Emission Limit (lb VOC per ton of lecithin)	Method of Estimation
Vent gas from Lecithin	Refrigerated Condenser	2.60	Stack test
Air Emissions - Fugitive			
General Sampling	None	1.00	Product sampling based on quantity and VOC content of the material
Start-ups/Shutdowns and Plant	None	11.2	Mass balance

upsets			
Products and By-products			
Extracted Lecithin	None	1.60	Product sampling based on quantity and VOC content of the material
Lecithin Residue	None	3.60	
Overall solvent losses *	-	20.0	-

* The VOC emission limit from the overall solvent losses includes the limit from the vent gas from the lecithin process. The overall solvent losses limit was modified from 6.6 pounds of VOC per ton of lecithin to 20.0 pounds of VOC per ton of lecithin because the source could not comply with the 6-6 lbs of VOC per ton of lecithin limit

- (b) BACT for the fugitive volatile organic compounds loss shall include the following enhanced inspection, maintenance, and repair program for the solvent extraction portion:

The Permittee shall determine compliance with the standards in the table below by using the procedures of 40 CFR Part 60, Appendix A, Method 21. The instrument shall be calibrated before each day of its use by the procedures as specified in Method 21. A leak is defined as an instrument reading of 500 ppm above background or greater, except for flanges, and connectors where a leak is defined as 10,000 ppm above background.

Equipment	Leak Standard (ppm)
Pumps	500
Valves	500
Pressure Relief Devices	500
Flanges, Connectors, and Seals	10,000

- (2) The Permittee shall tag all detected leaks with a weatherproof and readily visible identification tag with a distinct number. Once a leaking component is detected, first-attempt repairs must be done within five days and be completed within 15 days of detecting the leaking components. If the repair cannot be accomplished within 15 days, then the Permittee shall send a notice of inability to repair to the OAQ within 20 days of detecting the leak. The notice must be received by the Technical Support and Modeling and Compliance Branch, Office of Air Quality within 20 days after the leak was detected. At a minimum, the notice shall include the following:
- (A) Equipment, operator, and instrument identification number;
 - (B) Date of leak detection;
 - (C) Measured concentration (ppm) and background (ppm);
 - (D) Leak identification number associated with the corresponding tag; and
 - (E) Reason of inability to repair within 5 to 15 days of detection.
- (3) The Permittee shall maintain records of the following to verify compliance with the enhanced inspection, maintenance, and repair program;

- (A) Equipment inspected;
 - (B) Date of inspection; and
 - (C) Determination of whether a leak was detected.
- (4) If a leak is detected, the Permittee shall record the following information to verify compliance with the enhanced inspection, maintenance, and repair program:
- The equipment, operator, and instrument identification number;
- (B) Measured concentration;
 - (C) Leak identification number associated with the corresponding tag;
 - (D) Date of repair;
 - (E) Reason for non-repair if unable to repair within 5 to 15 days of detection;
 - (F) Maintenance recheck if repaired - date, concentration, background; and
 - (G) Any appropriate comments.