

October 4, 2001

Pat McNamara
Central Soya Company, Inc.
P.O. Box 860
Morristown, IN 46161

Re: Minor Source Modification No:
145-14642-00035

Dear Mr. McNamara:

Central Soya Company, Inc. applied for a Part 70 operating permit on September 22, 1997 for a soybean oil extraction plant. An application to modify the source was received on July 10, 2001. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

One (1) vegetable oil refinery process, consisting of crude vegetable oil receiving, storage, filtration, and degumming equipment; Lecithin drying and processing equipment; oil refining, deodorizing, and filtration equipment; bulk oil handling, blending, storage and loadout facilities, and including the following equipment:

- (a) One (1) storage silo, identified as R-101, equipped with a baghouse for particulate matter control, exhausted to Stack R-101, capacity: 30,000 pounds of bleaching earth per hour.
- (b) One (1) surge tank, identified as R-102, equipped with a baghouse for particulate matter control, exhausted to Stack R-102, capacity: 10,000 pounds of bleaching earth per hour.
- (c) One (1) storage silo, identified as R-103, equipped with a baghouse for particulate matter control, exhausted to Stack R-103, capacity: 30,000 pounds of filter aid per hour.
- (d) One (1) surge tank, identified as R-104, equipped with a baghouse for particulate matter control, exhausted to Stack R-104, capacity: 10,000 pounds of filter aid per hour.
- (e) One (1) storage silo, identified as R-105, equipped with a baghouse for particulate matter control, exhausted to Stack R-105, capacity: 30,000 pounds of silica per hour.
- (f) One (1) surge tank, identified as R-106, equipped with a baghouse for particulate matter control, exhausted to Stack R-106, capacity: 10,000 pounds of silica per hour.
- (g) One (1) boiler, identified as R-107, firing natural gas, exhausted to Stack R-107.

Insignificant Activities

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.

- (b) Combustion source flame safety purging on startup.
- (c) The following VOC and HAP storage containers: Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- (d) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (e) Closed loop heating and cooling systems.
- (f) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs.
- (g) Noncontact cooling tower systems with either of the following:
 - Natural draft cooling towers not regulated under a NESHAP.
 - Forced and induced draft cooling tower system not regulated under a NESHAP.
- (h) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (i) Heat exchanger cleaning and repair.
- (j) Process vessel degassing and cleaning to prepare for internal repairs.
- (k) Paved and unpaved roads and parking lots with public access.
- (l) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (m) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (n) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (o) Other activities or categories **not previously identified**:
 - (1) On-site equipment for generating Nitrogen
 - (2) Ammonia refrigeration system
 - (3) Vegetable oil storage tanks

The Minor Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(l)(3). The source may begin operation upon issuance of the source modification approval.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, press 0 and ask for Edward A. Longenberger, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395

or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Original signed by

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

EAL/MES

cc: File - Shelby County
U.S. EPA, Region V
Shelby County Health Department
Air Compliance Section Inspector - D.J. Knotts
Compliance Data Section - Karen Nowak
Administrative and Development - Cynthia ByMaster
Technical Support and Modeling - Michele Boner

PART 70 MINOR SOURCE MODIFICATION OFFICE OF AIR QUALITY

**Central Soya Company, Inc.
700 North Rangeline Road
Morristown, Indiana 46161-0860**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval 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.

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| Source Modification No.: 145-14642-00035 | |
| Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality | Issuance Date: October 04, 2001 |

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SECTION A

SOURCE SUMMARY

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

The Permittee owns and operates a stationary soybean processing source.

| | |
|------------------------------|--|
| Responsible Official: | Pat McNamara, Plant Manager |
| Source Address: | 700 North Rangeline Road, Morrilltown, Indiana |
| Mailing Address: | P.O. Box 860, Morrilltown, Indiana 46161 |
| General Source Phone Number: | (765) 763-7500 |
| SIC Code: | 2075 |
| County Location: | Shelby |
| 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 is approved to construct and operate the following emission units and pollution control devices:

One (1) vegetable oil refinery process, consisting of crude vegetable oil receiving, storage, filtration, and degumming equipment; Lecithin drying and processing equipment; oil refining, deodorizing, and filtration equipment; bulk oil handling, blending, storage and loadout facilities, and including the following equipment:

- (a) One (1) storage silo, identified as R-101, equipped with a baghouse for particulate matter control, exhausted to Stack R-101, capacity: 30,000 pounds of bleaching earth per hour.
- (b) One (1) surge tank, identified as R-102, equipped with a baghouse for particulate matter control, exhausted to Stack R-102, capacity: 10,000 pounds of bleaching earth per hour.
- (c) One (1) storage silo, identified as R-103, equipped with a baghouse for particulate matter control, exhausted to Stack R-103, capacity: 30,000 pounds of filter aid per hour.
- (d) One (1) surge tank, identified as R-104, equipped with a baghouse for particulate matter control, exhausted to Stack R-104, capacity: 10,000 pounds of filter aid per hour.
- (e) One (1) storage silo, identified as R-105, equipped with a baghouse for particulate matter control, exhausted to Stack R-105, capacity: 30,000 pounds of silica per hour.
- (f) One (1) surge tank, identified as R-106, equipped with a baghouse for particulate matter control, exhausted to Stack R-106, capacity: 10,000 pounds of silica per hour.
- (g) One (1) boiler, identified as R-107, firing natural gas, exhausted to Stack R-107.

A.3 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, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.
- (b) Combustion source flame safety purging on startup.
- (c) The following VOC and HAP storage containers: Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- (d) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (e) Closed loop heating and cooling systems.
- (f) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs.
- (g) Noncontact cooling tower systems with either of the following:
 - Natural draft cooling towers not regulated under a NESHAP.
 - Forced and induced draft cooling tower system not regulated under a NESHAP.
- (h) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (i) Heat exchanger cleaning and repair.
- (j) Process vessel degassing and cleaning to prepare for internal repairs.
- (k) Paved and unpaved roads and parking lots with public access.
- (l) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (m) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (n) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (o) Other activities or categories **not previously identified**:
 - (1) On-site equipment for generating Nitrogen
 - (2) Ammonia refrigeration system
 - (3) Vegetable oil storage tanks

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);
- (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 CONSTRUCTION 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, any applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.3 Revocation of Permits [326 IAC 2-1.1-9(5)] [326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

SECTION C GENERAL OPERATION CONDITIONS

C.1 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).

C.2 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) when operation begins, 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.

C.3 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 should 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)]

C.4 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 approval:

(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.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 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

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

C.8 Performance Testing [326 IAC 3-6] [326 IAC 2-1.1-11]

- (a) Compliance testing on new emission units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, 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 approval, shall be submitted to:

Indiana Department of Environmental Management
Compliance Branch, 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, OAM 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 within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation within 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)]

If required by Section D, all monitoring and record keeping requirements shall be implemented when operation begins. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

C.11 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 ($\pm 2\%$) of full scale reading.
- (b) Whenever a condition in this permit requires the measurement of a temperature, flow rate, or pH level, 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 ($\pm 2\%$) 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.12 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:
- (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;
 - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
 - (A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (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. Failure to take reasonable response steps may constitute a violation of the permit.
- (c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:

- (1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that 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 an administrative amendment 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) Records shall be kept of all instances in which the compliance related information was not met and of all response steps 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.
- (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.
- (f) At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in any quarter. Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

C.13 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, except as provided in 326 IAC 2-7-16.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, 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) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

- (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
- (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

C.14 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 not 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.15 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.16 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified

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

- (c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) 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.

SECTION D.1 FACILITY OPERATION CONDITIONS

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

One (1) vegetable oil refinery process, consisting of crude vegetable oil receiving, storage, filtration, and degumming equipment; Lecithin drying and processing equipment; oil refining, deodorizing, and filtration equipment; bulk oil handling, blending, storage and loadout facilities, and including the following equipment:

- (a) One (1) storage silo, identified as R-101, equipped with a baghouse for particulate matter control, exhausted to Stack R-101, capacity: 30,000 pounds of bleaching earth per hour.
- (b) One (1) surge tank, identified as R-102, equipped with a baghouse for particulate matter control, exhausted to Stack R-102, capacity: 10,000 pounds of bleaching earth per hour.
- (c) One (1) storage silo, identified as R-103, equipped with a baghouse for particulate matter control, exhausted to Stack R-103, capacity: 30,000 pounds of filter aid per hour.
- (d) One (1) surge tank, identified as R-104, equipped with a baghouse for particulate matter control, exhausted to Stack R-104, capacity: 10,000 pounds of filter aid per hour.
- (e) One (1) storage silo, identified as R-105, equipped with a baghouse for particulate matter control, exhausted to Stack R-105, capacity: 30,000 pounds of silica per hour.
- (f) One (1) surge tank, identified as R-106, equipped with a baghouse for particulate matter control, exhausted to Stack R-106, capacity: 10,000 pounds of silica per hour.
- (g) One (1) boiler, identified as R-107, firing natural gas, exhausted to Stack R-107.

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

Pursuant to 326 IAC 6-3-2, the allowable PM emission rate from the three (3) storage silos and three (3) surge tanks, identified as R-101 through R-106, shall not exceed those listed in the following table:

| Unit ID | Allowable PM Emission Rate (lbs/hr) |
|---------|-------------------------------------|
| R-101 | 25.2 |
| R-102 | 12.1 |
| R-103 | 25.2 |
| R-104 | 12.1 |
| R-105 | 25.2 |
| R-106 | 12.1 |

The limitations are based on the following equation:

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

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

D.1.2 Particulate Matter Limitation (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4, the PM emissions from the one (1) boiler, identified as R-107, shall not exceed 0.316 pounds per million British thermal units.

This limitation was computed using the following equation:

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

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lbs/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used. Q = 116.5.

D.1.3 Hazardous Air Pollutants (HAPs) [326 IAC 2-4.1]

The total amount of off-site soybean oil processed by the one (1) vegetable oil refinery shall be limited to less than 347,220,000 pounds per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control) do not apply.

D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

The total amount of off-site soybean oil processed by the one (1) vegetable oil refinery shall be limited to less than 347,220,000 pounds per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) do not apply.

D.1.5 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 these facilities and any control devices.

Compliance Determination Requirements

D.1.6 Particulate Matter (PM)

In order to comply with Condition D.1.1, the baghouses for PM control shall be in operation and control emissions from the storage silos and surge tanks, identified as R-101 through R-106, at all times when the storage silos and surge tanks are in operation.

D.1.7 HAP Emissions

Compliance with Condition D.1.3 shall be demonstrated within 30 days of the end of each month based on the total single HAP for the twelve (12) month period.

D.1.8 VOC Emissions

Compliance with Condition D.1.4 shall be demonstrated within 30 days of the end of each month based on the VOC emissions for the twelve (12) month period.

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

D.1.9 Visible Emissions Notations

- (a) Visible emission notations of the storage silos and surge tanks (R-101 through R-106) stack exhausts shall be performed once per shift 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 Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.1.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across each baghouse used in conjunction with the storage silos and surge tanks (R-101 through R-106), at least once per shift when the storage silos and surge tanks (R-101 through R-106) are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 0.25 and 8.0 inches of water or a range established during the latest stack test. 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 Monitoring Plan - Failure to Take Response Steps, 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.1.11 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the storage silos and surge tanks (R-101 through R-106) 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.1.12 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 C- 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 Monitoring Plan - Failure to Take Response Steps, 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 C - Emergency Provisions).

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

D.1.13 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.3 and D.1.4, the Permittee shall maintain monthly records of the amount of off-site soybean oil processed by the one (1) vegetable oil refinery.
- (b) To document compliance with Condition D.1.9, the Permittee shall maintain records of visible emission notations of the storage silos and surge tanks (R-101 through R-106) stack exhausts once per shift.
- (c) To document compliance with Condition D.1.10, the Permittee shall maintain the following:

Once per shift records of the following operational parameters during normal operation when venting to the atmosphere:
 - (1) Inlet and outlet differential static pressure; and
 - (2) Cleaning cycle operation.
- (d) To document compliance with Condition D.1.11, the Permittee shall maintain records of the results of the inspections required under Condition D.1.11 and the dates the vents are redirected.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.14 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.3 and D.1.4 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).

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

**PART 70 SOURCE MODIFICATION
CERTIFICATION**

Source Name: Central Soya Company, Inc.
Source Address: 700 North Rangeline Road, Morrilltown, Indiana
Mailing Address: P.O. Box 860, Morrilltown, Indiana 46161-0860
Source Modification No.: 145-14642-00035

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

Please check what document is being certified:

- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Affidavit (specify) _____
- 9 Other (specify) _____

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

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
Part 70 Source Modification Quarterly Report

Source Name: Central Soya Company, Inc.
Source Address: 700 North Rangeline Road, Morrilltown, Indiana
Mailing Address: P.O. Box 860, Morrilltown, Indiana 46161-0860
Source Modification No.: 145-14642-00035
Facility: One (1) vegetable oil refinery
Parameter: Amount of off-site oil processed
Limit: Less than 347,220,000 pounds of oil per twelve (12) consecutive month period.

YEAR: _____

| Month | pounds of off-site oil processed | pounds of off-site oil processed | pounds of off-site oil processed |
|-------|----------------------------------|----------------------------------|----------------------------------|
| | This Month | Previous 11 Months | 12 Month Total |
| | | | |
| | | | |
| | | | |

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

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

October 4, 2001

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

**Technical Support Document (TSD) for a Part 70
Minor Source Modification**

Source Background and Description

| | |
|--|--|
| Source Name: | Central Soya Company, Inc. |
| Source Location: | 700 North Rangeline Road, Morristown, Indiana |
| County: | Shelby |
| SIC Code: | 2075 |
| Operation Permit No.: | T 145-9004-00035 |
| Operation Permit Issuance Date: | Not Yet Issued |
| Minor Source Modification No.: | MSM 145-14642-00035 |
| Permit Reviewer: | Edward A. Longenberger |

The Office of Air Quality (OAQ) has reviewed a modification application from Central Soya Company, Inc. relating to the construction and operation of the following emission units and pollution control devices:

One (1) vegetable oil refinery process, consisting of crude vegetable oil receiving, storage, filtration, and degumming equipment; Lecithin drying and processing equipment; oil refining, deodorizing, and filtration equipment; bulk oil handling, blending, storage and loadout facilities, and including the following equipment:

- (a) One (1) storage silo, identified as R-101, equipped with a baghouse for particulate matter control, exhausted to Stack R-101, capacity: 30,000 pounds of bleaching earth per hour.
- (b) One (1) surge tank, identified as R-102, equipped with a baghouse for particulate matter control, exhausted to Stack R-102, capacity: 10,000 pounds of bleaching earth per hour.
- (c) One (1) storage silo, identified as R-103, equipped with a baghouse for particulate matter control, exhausted to Stack R-103, capacity: 30,000 pounds of filter aid per hour.
- (d) One (1) surge tank, identified as R-104, equipped with a baghouse for particulate matter control, exhausted to Stack R-104, capacity: 10,000 pounds of filter aid per hour.
- (e) One (1) storage silo, identified as R-105, equipped with a baghouse for particulate matter control, exhausted to Stack R-105, capacity: 30,000 pounds of silica per hour.
- (f) One (1) surge tank, identified as R-106, equipped with a baghouse for particulate matter control, exhausted to Stack R-106, capacity: 10,000 pounds of silica per hour.
- (g) One (1) boiler, identified as R-107, firing natural gas, exhausted to Stack R-107.

Insignificant Activities

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.
- (b) Combustion source flame safety purging on startup.
- (c) The following VOC and HAP storage containers: Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- (d) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (e) Closed loop heating and cooling systems.
- (f) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs.
- (g) Noncontact cooling tower systems with either of the following:
 - Natural draft cooling towers not regulated under a NESHAP.
 - Forced and induced draft cooling tower system not regulated under a NESHAP.
- (h) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (i) Heat exchanger cleaning and repair.
- (j) Process vessel degassing and cleaning to prepare for internal repairs.
- (k) Paved and unpaved roads and parking lots with public access.
- (l) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (m) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (n) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (o) Other activities or categories **not previously identified**:
 - (1) On-site equipment for generating Nitrogen
 - (2) Ammonia refrigeration system
 - (3) Vegetable oil storage tanks

History

On September 22, 1997, Central Soya Company, Inc. applied for a Part 70 Operating Permit (T 145-9004-00035) for their soybean oil extraction plant. On July 10, 2001, the source submitted an

application to construct and operate a vegetable oil refinery at their existing soybean oil extraction plant. The proposed refinery will process oil produced at the existing soybean oil extraction plant, as well as vegetable oil from other sources.

Existing Approvals

The source applied for a Part 70 Operating Permit T 145-9004-00035 on September 22, 1997. The source has been operating under previous approvals including, but not limited to the following:

- (a) CP 145-4300-00035, issued on July 17, 1995;
- (b) A 145-6463-00035, issued on September 17, 1996;
- (c) A 145-6779-00035, issued on October 9, 1996; and
- (d) A 145-9458-00035, issued on June 9, 1998.

Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justification such that the baghouses associated with the three (3) silos and three (3) surge tanks identified as R-101 through R-106 be considered as an integral part of the vegetable oil refinery process:

A positive displacement blower will be used to provide air as the motive force for conveying the material through contained piping to the appropriate location. The entire stream of air and dry product enters the filter. The material retained by the filter falls into the storage bins. The filters for these units are not air pollution control devices but are mechanisms to separate product (dry material) from the air stream.

IDEM, OAQ has evaluated the justifications and agreed that the baghouses associated with the three (3) silos and three (3) surge tanks identified as R-101 through R-106 will be considered as an integral part of the vegetable oil refinery process. Therefore, the permitting level will be determined using the potential to emit after the baghouses. Operating conditions in the proposed permit will specify that these baghouses shall operate at all times when the material transfer processes are in operation.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

| Stack ID | Operation | Height (feet) | Diameter (feet)* | Flow Rate (acfm) | Temperature (EF) |
|----------|--------------------------|---------------|------------------|------------------|------------------|
| R-101 | bleaching earth storage | 40 | TBD | 3,000 | 70 |
| R-102 | bleaching earth transfer | 25 | TBD | 3,000 | 70 |
| R-103 | filter aid storage | 40 | TBD | 3,000 | 70 |
| R-104 | filter aid transfer | 25 | TBD | 3,000 | 70 |
| R-105 | silica storage | 40 | TBD | 3,000 | 70 |

| Stack ID | Operation | Height (feet) | Diameter (feet)* | Flow Rate (acfm) | Temperature (EF) |
|----------|----------------------|---------------|------------------|------------------|------------------|
| R-106 | silica transfer | 25 | TBD | 3,000 | 70 |
| R-107 | Geka thermal process | 20 | TBD | 3,000 | 150 |

*TBD = to be determined

Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source 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 July 10, 2001. Additional information was received on August 13, 2001.

Emission Calculations

See pages 1 through 4 of 4 of Appendix A of this document for detailed emissions calculations. The applicant has requested that the hourly capacity of the refinery, the heat input capacity of the boiler identified as R-107, and the Hexane fraction of the soybean oil remain confidential.

Under the standard accounting methodology employed in the recently issued vegetable oil production MACT standard (66FR19005, 40 CFR 63 Subpart GGGG), emissions of VOC from the processing of oilseeds must be accounted for on a mass balance basis and compared to a plant-wide allowable limit in order to determine compliance. This requirement means that any residual VOC content of in-house oil must be counted as emitted prior to any further processing, whether on-site or off-site. Because the loss is included in the vegetable oil production MACT analysis, further recovery or reduction in this emission has been determined to be impractical. Therefore, if the proposed refinery processed only vegetable oil produced "in-house" it would not in and of itself emit or cause any increased potential to emit of the residual hexane content of the oil that is not already accounted for under the MACT standard. A similar argument could be made for the hexane content of off-site crude oil. That is, any residual hexane content has already been accounted for by the originating facility. However, it is appropriate to identify this quantity as an additional source of loss from this plant site which wouldn't have existed before the proposed refinery is constructed, since it would not be reflected in the plant-wide accounting procedure under the MACT standard.

Therefore, only the amount of off-site vegetable oil processed by this refinery is considered when determining the potential to emit of VOC and n-Hexane from this proposed refinery.

Potential To Emit of Modification

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."

This table reflects the PTE before controls. Control equipment is not considered federally enforce-

able until it has been required in a federally enforceable permit.

| Pollutant | Potential To Emit (tons/year) |
|------------------|--|
| PM | 4.58 |
| PM ₁₀ | 4.78 |
| SO ₂ | 0.021 |
| VOC | 39.4 |
| CO | 2.94 |
| NO _x | 3.50 |

| HAPs | Potential To Emit (tons/year) |
|---------------------|--|
| Benzene | 0.00007 |
| Dichlorobenzene | 0.00004 |
| Formaldehyde | 0.003 |
| n-Hexane | less than 10.0 |
| Toluene | 0.0001 |
| Lead Compounds | 0.00002 |
| Cadmium Compounds | 0.00004 |
| Chromium Compounds | 0.00005 |
| Manganese Compounds | 0.00001 |
| Nickel Compounds | 0.00007 |
| TOTAL | 10.0 |

Justification for Modification

- (a) The Part 70 Operating Permit is being modified through a Part 70 Minor Source Modification to a yet to be issued Part 70 Operating Permit pursuant to 326 IAC 2-7-10.5(d)(4) and 326 IAC 2-7-10.5(d)(5) because:
 - (1) the potential to emit of PM and PM₁₀ are less than twenty-five (25) tons per year, since the baghouses are considered an integral part of the material transfer processes; and
 - (2) the potential to emit is limited to less than twenty-five (25) tons per year of VOC, less than ten (10) tons per year of any single hazardous air pollutant as defined under Section 112(b) of the CAA, and less than twenty-five (25) tons per year of any combination of hazardous air pollutants by limiting total annual off-site soybean oil throughput.

- (b) Since the Part 70 Operating Permit for this source has not been issued yet, the approval of this Significant Source Modification will allow the source to construct and operate.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 1999 OAQ emission data.

| Pollutant | Actual Emissions (tons/year) |
|------------------|---------------------------------|
| PM | not reported |
| PM ₁₀ | 19.2 |
| SO ₂ | 0.171 |
| VOC | 281 |
| CO | 9.23 |
| NO _x | 37.9 |
| HAP (Hexane) | 280 |

County Attainment Status

The source is located in Shelby County.

| Pollutant | Status |
|------------------|------------|
| PM ₁₀ | attainment |
| SO ₂ | attainment |
| NO ₂ | attainment |
| Ozone | attainment |
| CO | attainment |
| Lead | attainment |

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Shelby County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Shelby County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

| Pollutant | Emissions (tons/year) |
|------------------|--------------------------|
| PM | 146 |
| PM ₁₀ | 76.8 |
| SO ₂ | 241 |
| VOC | 176 |
| CO | 20.1 |
| NO _x | 80.2 |

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.
- (b) These emissions are based upon the Technical Support Document for CP 145-4300-00035.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

| Process/facility | Potential to Emit (tons/year) | | | | | | |
|-----------------------|----------------------------------|------------------|-----------------|------|------|-----------------|------|
| | PM | PM ₁₀ | SO ₂ | VOC | CO | NO _x | HAPs |
| Proposed Modification | 4.58 | 4.78 | 0.021 | 15.8 | 2.94 | 3.50 | 10.0 |
| PSD Threshold Level | 250 | 250 | 250 | 250 | 250 | 250 | - |

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source has submitted their Part 70 (T 145-9004-00035) application on September 22, 1997. The proposed vegetable oil refinery being reviewed under this permit shall be incorporated in the submitted Part 70 application.

Federal Rule Applicability

- (a) The one (1) boiler, identified as R-107, is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.40c, Subpart Dc).
- (b) This vegetable oil refinery is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP), 326 IAC 14 (40 CFR Part 63, Subpart GGGG), because an affected source is described as “a vegetable oil production process” which is defined at 40 CFR 63.2872, where the definition states “A vegetable oil production process does not include vegetable oil refining operations...”

State Rule Applicability - Individual Facilities

326 IAC 2-4.1-1 (New Source Toxics Control)

The one (1) vegetable oil refinery process is not subject to the requirements of 326 IAC 2-4.1-1 because the throughput of off-site soybean oil is limited to less than 347,220,000 pounds per twelve (12) consecutive month period, equivalent to n-Hexane emissions less than ten (10) tons per year.

326 IAC 6-2-4 (Particulate Emissions Limitations for Facilities Constructed after September 21, 1983)

The one (1) boiler, identified as R-107, must comply with the requirements of 326 IAC 6-2-4. The emission limitations are based on the following equation is given in 326 IAC 6-2-4:

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

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

Q = 116.5 million British thermal units per hour.

$$Pt = 1.09/(116.5)^{0.26} = 0.316 \text{ lb PM per MMBtu heat input}$$

Based on Appendix A, the potential PM emission rate is:

$$0.067 \text{ ton/yr} \times (2000 \text{ lbs/ton} / 8760 \text{ hrs/yr}) = 0.015 \text{ lb/hr}$$
$$(0.015 \text{ lb/hr} / 116.5 \text{ MMBtu/hr}) = 0.0001 \text{ lb PM per MMBtu heat input}$$

Therefore, the one (1) boiler, identified as R-107, will comply with this rule.

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the storage silos and surge tanks, identified as R-101 through R-106, shall be limited as shown in the following table:

| Unit ID | Process Weight Rate (tons/hr) | Allowable PM Emission Rate (lbs/hr) | Potential Emissions after controls (lbs/hr) |
|---------|-------------------------------|-------------------------------------|---|
| R-101 | 15.0 | 25.2 | 0.257 |
| R-102 | 5.0 | 12.1 | 0.086 |
| R-103 | 15.0 | 25.2 | 0.257 |
| R-104 | 5.0 | 12.1 | 0.086 |
| R-105 | 15.0 | 25.2 | 0.257 |
| R-106 | 5.0 | 12.1 | 0.086 |

The limitations are based on the following equation:

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

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

For each storage silo and surge tank, the potential PM emissions after control are less than the allowable emission rate. Therefore, the storage silos and surge tanks, identified as R-101 through R-106, will be in compliance with this rule.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The one (1) vegetable oil refinery is not subject to the requirements of 326 IAC 7-1.1 because the potential to emit of SO₂ is less than twenty-five (25) tons per year or ten (10) pounds per hour.

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

The one (1) vegetable oil refinery process is not subject to the requirements of 326 IAC 8-1-6 because the throughput of off-site soybean oil is limited to less than 347,220,000 pounds per twelve (12) consecutive month period, equivalent to VOC emissions less than 15.6 tons per year.

326 IAC 8 (Volatile Organic Compound Rules)

No other Article 8 rules apply to this modification.

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 one (1) vegetable oil refinery has applicable compliance monitoring conditions as specified below:

- (a) Visible emissions notations of the three (3) storage silos and three (3) surge tanks (R-101 through R-106) shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. 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. 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. 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. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.
- (b) The Permittee shall record the total static pressure drop across each baghouse used in conjunction with the storage silos and surge tanks (R-101 through R-106), at least once per shift when the storage silos and surge tanks (R-101 through R-106) are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 0.25 and 8.0 inches of water or a range established during the latest stack test. 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.
- (c) An inspection shall be performed each calendar quarter of all bags controlling the operations at this source 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) In the event that bag failure has been observed:
 - (1) 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 C-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.

- (2) 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 C - Emergency Provisions).
- (e) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

These monitoring conditions are necessary because the baghouses for the material transfer process must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

Conclusion

The construction and operation of this proposed vegetable oil refinery shall be subject to the conditions of the attached Minor Source Modification **No. 145-14642-00035**.

**Appendix A: Emission Calculations
Baghouse Operations**

Company Name: Central Soya Company, Inc.
Address City IN Zip: 700 North Rangeline Road, Morristown, Indiana
Source Modification: 145-14642
Plt ID: 145-00035
Reviewer: Edward A. Longenberger
Date: July 10, 2001

| Unit ID | Control Efficiency (%) | Grain Loading per Actual Cubic foot of Outlet Air (grains/cub. ft.) | Gas or Air Flow Rate (acfm.) | | | Emission Rate after Controls (lb/hr) | Emission Rate after Controls (tons/yr) |
|---------|------------------------|---|------------------------------|--|--|--------------------------------------|--|
| R-101 | 99.0% | 0.010 | 3000.0 | | | 0.257 | 1.126 |
| R-102 | 99.0% | 0.010 | 1000.0 | | | 0.086 | 0.375 |
| R-103 | 99.0% | 0.010 | 3000.0 | | | 0.257 | 1.126 |
| R-104 | 99.0% | 0.010 | 1000.0 | | | 0.086 | 0.375 |
| R-105 | 99.0% | 0.010 | 3000.0 | | | 0.257 | 1.126 |
| R-106 | 99.0% | 0.010 | 1000.0 | | | 0.086 | 0.375 |
| | | | Totals | | | 1.029 | 4.51 |

Methodology

Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (sq. ft.) ((cub. ft./min.)/sq. ft.) (60 min/hr) (lb/7000 grains)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Emission Rate in lbs/hr (before controls) = Emission Rate (after controls): (lbs/hr)/(1-control efficiency)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

For these sources, baghouse controls were considered integral to the process

**Appendix A: Emissions Calculations
VOC and n-Hexane Emissions**

Company Name: Central Soya Company, Inc.
Address City IN Zip: 700 North Rangeline Road, Morristown, Indiana
Source Modification: 145-14642
Plt ID: 145-00035
Reviewer: Edward A. Longenberger
Date: July 10, 2001

| | Oil Throughput (10 ⁶ lbs/yr) | Oil Throughput (lbs/hr) | Hexane fraction | n-Hexane fraction (%) | VOC emissions (lbs/hr) | VOC emissions (tons/yr) | n-Hexane emissions (lbs/hr) | n-Hexane emissions (tons/yr) |
|----------------------|---|-------------------------------|--------------------|-----------------------------|------------------------------|-------------------------------|-----------------------------------|------------------------------------|
| Potential Throughput | | | | 64.00% | 9.00 | 39.42 | 5.76 | 25.23 |
| Limited Throughput | | | | 64.00% | 3.57 | 15.63 | 2.28 | 10.00 |

VOC emissions (lbs/hr) = Throughput (lbs/hr) x Hexane fraction

VOC emissions (tons/yr) = VOC emissions (lbs/hr) x 2000 (lbs/ton) / 8760 (hrs/yr)

n-Hexane emissions (lbs/hr) = Throughput (lbs/hr) x Hexane fraction x n-Hexane fraction

n-Hexane emissions (tons/yr) = n-Hexane emissions (lbs/hr) x 2000 (lbs/ton) / 8760 (hrs/yr)

n-Hexane emissions are a subset of VOC emissions

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

**Company Name: Central Soya Company, Inc.
Address City IN Zip: 700 North Rangeline Road, Morristown, Indiana
Source Modification: 145-14642
PI# ID: 145-00035
Reviewer: Edward A. Longenberger
Date: July 10, 2001**

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

| Emission Factor in lb/MMCF | Pollutant | | | | | |
|-------------------------------|-----------|-------|-------|-------------|-------|------|
| | PM* | PM10* | SO2 | NOx | VOC | CO |
| | 1.9 | 7.6 | 0.6 | 100.0 | 5.5 | 84.0 |
| | | | | **see below | | |
| Potential Emission in tons/yr | 0.067 | 0.266 | 0.021 | 3.50 | 0.193 | 2.94 |

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

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

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

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

See page 4 for HAPs emissions calculations.

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boiler

HAPs Emissions

Company Name: Central Soya Company, Inc.

Address City IN Zip: 700 North Rangeline Road, Morristown, Indiana

Source Modification: 145-14642

Plt ID: 145-00035

Reviewer: Edward A. Longenberger

Date: July 10, 2001

HAPs - Organics

| Emission Factor in lb/MMcf | Benzene 2.1E-03 | Dichlorobenzene 1.2E-03 | Formaldehyde 7.5E-02 | Hexane 1.8E+00 | Toluene 3.4E-03 |
|-------------------------------|--------------------|----------------------------|-------------------------|-------------------|--------------------|
| Potential Emission in tons/yr | 7.358E-05 | 4.205E-05 | 2.628E-03 | 6.307E-02 | 1.191E-04 |

HAPs - Metals

| Emission Factor in lb/MMcf | Lead 5.0E-04 | Cadmium 1.1E-03 | Chromium 1.4E-03 | Manganese 3.8E-04 | Nickel 2.1E-03 | Total HAPs |
|-------------------------------|-----------------|--------------------|---------------------|----------------------|-------------------|---------------|
| Potential Emission in tons/yr | 1.752E-05 | 3.854E-05 | 4.906E-05 | 1.332E-05 | 7.358E-05 | 0.066 |

Methodology is the same as page 3.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.