CONSTRUCTION PERMIT
OFFICE OF AIR MANAGEMENT

CSE Processing, LLC
Parrot Road
New Haven, Indiana 46774

This permit is issued to the above mentioned company (herein known as the Permittee) under the provisions of 326 IAC 2-1 and 40 CFR 52.780, with conditions listed on the attached pages.

Permit No.: CP 003-8716-00281	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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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 Management (OAM), and presented in the permit application.

A.1 General Information

The Permittee owns and operates a stationary soybean processing source.

Responsible Official:	John Stanford
Source Address:	Parrot Road, New Haven, Indiana 46774
Mailing Address:	P.O. Box 323, New Haven, Indiana 46774
SIC Code:	2075
County Location:	New Haven
County Status:	Attainment for all criteria pollutants
Source Status:	Minor Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary

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

(a) One (1) grain elevator, equipped with a fabric filter as air pollution control exiting through stack S1a, maximum capacity: 150 tons of soybeans per hour.

(b) One (1) truck scale receiving system, equipped with a fabric filter as air pollution control exiting through stack S1a, maximum capacity: 90 tons of soybeans per hour.

(c) One (1) day bin for soybean storage, equipped with a fabric filter as air pollution control exiting through stack S1b, maximum capacity: 2,000 tons, maximum throughput: 150 tons of soybeans per hour.

(d) One (1) shift surge bin for soybean storage, equipped with a fabric filter as air pollution control exiting through stack S1b, maximum capacity: 140 tons, maximum throughput: 110 tons of soybeans per hour.

(e) One (1) scalperator for soybean cleaning, equipped with a fabric filter as air pollution control exiting through stack S2, maximum capacity: 100 tons of soybeans per hour.

(f) One (1) screenings bin for soybean storage, equipped with a fabric filter as air pollution control exiting through stack S2, maximum capacity: 140 tons, maximum throughput: 100 tons of soybeans per hour.

(g) One (1) hot dehulling surge bin for soybean storage, equipped with a fabric filter as air pollution control exiting through stack S2, maximum capacity: 140 tons, maximum throughput: 100 tons per hour.

(h) One (1) bean heater, equipped with cyclone(s) as air pollution controls exiting through stack S3, maximum capacity: 100 tons per hour.

(i) Three (3) jet dryers, equipped with cyclone(s) as air pollution controls exiting through stack S3, maximum capacity: 33.33 tons per hour, each.

(j) Three (3) hulloosenators, equipped with cyclone(s) as air pollution controls exiting through stack S3, maximum capacity: 33.33 tons per hour, each.

(k) Three (3) split soy aspirators, equipped with cyclone(s) as air pollution controls exiting through stack S3, maximum capacity: 33.33 tons per hour, each.

(l) Three (3) crackers, equipped with cyclone(s) as air pollution controls exiting through stack S3, maximum capacity: 33.33 tons per hour, each.

(m) Three (3) conditioners, equipped with cyclone(s) as air pollution controls exiting through stack S3, maximum capacity: 33.33 tons per hour, each.

(n) One (1) hulls screener, equipped with cyclone(s) as air pollution controls exiting through stack S3, maximum capacity: 4 tons per hour.

(o) One (1) secondary dehulling aspirator, equipped with cyclone(s) as air pollution controls exiting through stack S3, maximum capacity: 4 tons per hour.

(p) Ten (10) flakers, equipped with a fabric filter as air pollution control exiting through stack S4, maximum capacity: 125 tons of cracked/dehulled soybeans per hour, total.

(q) One (1) meal dryer with two (2) sections, equipped with two (2) cyclones as air pollution controls exiting through stack S5, maximum capacity: 80 tons of soybean meal per hour.

(r) One (1) meal cooler, equipped with a cyclone as air pollution control exhausting through stack S6, maximum capacity: 80 tons of soybean meal per hour.

(s) One (1) meal screen, equipped with a cyclone and a fabric filter as air pollution control exiting through stack S7, maximum capacity: 75 tons of soybean meal per hour.

(t) Two (2) hammermills, equipped with a cyclone and a fabric filter as air pollution control exiting through stack S7, maximum capacity: 80 tons of soybean meal per hour, total.

(u) One (1) aspirator, equipped with a cyclone and a fabric filter as air pollution control exiting through stack S7, maximum capacity: 75 tons of soybean meal per hour.

(v) Two (2) hull grinders, equipped with a cyclone and a fabric filter for air pollution control exiting through stack S8, maximum capacity: 20 tons per hour, total.

(w) Two (2) meal shift tanks, equipped with a fabric filter for air pollution control exiting through stack S9, maximum capacity: 3,400 tons, maximum throughput: 75 tons of soybean meal per hour, total.

(x) One (1) ground hull tank, equipped with a fabric filter for air pollution control exiting through stack S9, maximum capacity: 500 tons, maximum throughput: 13 tons of ground soybean hulls per hour.

(y) Four (4) meal loading bins, equipped with a fabric filter as air pollution control exiting through stack S10c, maximum capacity: 1,400 tons, maximum throughput: 104 tons of soybean meal per hour, total.

(z) One (1) truck meal loading scale, equipped with a fabric filter as air pollution control exiting through stack S10a, maximum throughput: 70 tons of soybean meal per hour.

(aa) One (1) rail meal loading scale exiting through stack S10b, equipped with a fabric filter as air pollution control, maximum throughput: 103 tons of soybean meal per hour.

(bb) One (1) salt storage bin exiting through stack S11b, equipped with a fabric filter for air pollution control, maximum capacity: 75 tons, maximum throughput: 25 tons of salt per hour.

(cc) Two (2) natural gas fired boilers of which one is a backup boiler exhausting through stack S11a, heat input capacity: 75 million British thermal units per hour, each.

(dd) One (1) hexane storage tank vented to the distillation system, capacity: 17,000 gallons of hexane.

(ee) One (1) mineral oil system with an oil extractor, distillation system, and a mineral oil absorber for hexane recovery and emission control, exiting through stack S12, maximum throughput of the extractor: 80 tons of soybean meal per hour.

(ff) One (1) hexane /miscella work tank vented to the distillation system, capacity: 10,800 gallons.

(gg) Three (3) fixed roof soybean oil tanks, maximum capacity: 158,000 gallons, each.

(hh) Three (3) fixed roof soybean oil day tanks, maximum capacity: 29,000 gallons, each.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source will be required to apply for 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 AND OPERATION CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

Construction Conditions [326 IAC 2-1-3.2]

B.1 General Construction Conditions

(a) The data and information supplied with the application shall be considered part of this permit. Prior to any proposed change in construction which may affect allowable emissions, the change must be approved by the Office of Air Management (OAM).

(b) This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Effective Date of the Permit [IC 13-15-5-3] [326 IAC 2-1-9(b)]

(a) Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.

(b) Pursuant to 326 IAC 2-1-9(b) (Revocation of Permits), IDEM, OAM, may revoke this section of the approved permit if construction is not commenced within eighteen (18) months after receipt of this permit or if construction is suspended for a continuous period of one (1) year or more.

(c) Notwithstanding Condition B.3, all requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.3 First Time Operation Permit [326 IAC 2-1-4]

This document shall also become the first-time operation permit for the facilities under this section of this permit, pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:

(a) The attached affidavit of construction shall be submitted to:

Indiana Department of Environmental Management
Permit Administration & Development Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

verifying that the facilities were constructed as proposed in the application. The facilities covered in this section of this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.

(b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(c) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this permit.

(d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-7-19 (Fees).

(e) Pursuant to 326 IAC 2-7-4, the Permittee shall apply for a Title V operating permit within twelve (12) months after the source becomes subject to Title V. This 12-month period starts at the postmarked submission date of the Affidavit of Construction. If the construction is completed in phases, the 12-month period starts at the postmarked submission date of the Affidavit of Construction that triggers the Title V applicability. The operation permit issued shall contain as a minimum the conditions in the Operation Conditions section of this permit.

B.4 NSPS Reporting Requirement [40 CFR Part 60.7, Subpart A]

Pursuant to the New Source Performance Standards (NSPS), Part 60.7, Subpart A, the source owner/operator is hereby advised of the requirement to report for the:

(a) two (2) boilers,

(b) one (1) hexane tank,

(c) one (1) hexane miscella work tank,

(d) three (3) fixed roof soybean oil tanks,

(e) three (3) fixed roof soybean oil day tanks, and

(f) the grain operations,

the following information, at the appropriate times:

(a) Commencement of construction date (no later than 30 days after such date);

(b) Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

(c) Actual start-up date (within 15 days after such date); and

(d) Date of performance testing (at least 30 days prior to such date), when required by a condition elsewhere in this permit.

Reports are to be sent to:

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

The application and enforcement of these standards have been delegated to the IDEM-OAM. The requirements of 40 CFR Part 60 are also federally enforceable.

Operation Conditions

B.5 General Operation Conditions

(a) The data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Management (OAM).

(b) The Permittee shall comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder.

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

Pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plans), the Permittee shall prepare and maintain a preventive maintenance plan, including the following information:

(a) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices.

(b) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.

(c) Identification of the replacement parts which will be maintained in inventory for quick replacement.

The preventive maintenance plan shall be submitted to IDEM, OAM upon request and shall be subject to review and approval.

B.7 Transfer of Permit [326 IAC 2-1-6]

Pursuant to 326 IAC 2-1-6 (Transfer of Permits):

(a) In the event that ownership of this soybean processing plant is changed, the Permittee shall notify OAM, Permit Branch, within thirty (30) days of the change. Notification shall include the date or proposed date of said change.

(b) The written notification shall be sufficient to transfer the permit from the current owner to the new owner.

(c) The OAM shall reserve the right to issue a new permit.

B.8 Permit Revocation [326 IAC 2-1-9(a)]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of 326 IAC 2-1 (Permit Review Rules).

B.9 Availability of Permit [326 IAC 2-1-3(l)]

Pursuant to 326 IAC 2-1-3(l), the Permittee shall maintain the applicable permit on the premises of this source and shall make this permit available for inspection by the IDEM, or other public official having jurisdiction.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards

C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

(a) The total source potential to emit of PM and PM_{10} is limited to 221 tons per year and the total source potential to emit of VOC is limited to 139 tons per year (260 tons per year including fugitive emissions). Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.

(b) Fugitive emissions of PM and PM_{10} are counted towards the PSD applicability since there is an applicable NSPS (40 CFR Part 60) to this source for PM.

(c) Fugitive emissions of VOC are not counted towards PSD applicability since there is no NSPS (40 CFR Part 60) applicable to this source for VOC.

(d) During the first twelve (12) months of operation, the hexane usage shall be limited to 0.24 gallons per ton of soybeans crushed based on a 12-month rolling average. After the first 12 months of operation, the hexane usage shall be limited to 0.1612 gallons per ton of soybeans crushed based on a 12-month rolling average.

(e) The amount of soybeans processed shall not exceed 730,000 tons per year, based on a 12-month rolling total.

(f) Any change or modification which may increase PM, PM_{10} or VOC emissions, shall require IDEM, OAM approval before such change may occur.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions) and Section D of this permit, visible emissions shall meet the following, unless otherwise stated in Section D of this permit:

(a) Visible emissions shall not exceed an average of forty percent (40%) opacity in twenty-four (24) consecutive readings, as determined in 326 IAC 5-1-4.

(b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) 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.

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)]

All air pollution control equipment listed in this permit shall be operated at all times that the emission units vented to the control equipment are in operation, as described in Section D of this permit.

C.7 Stack Height [326 IAC 1-7]

(a) The Permittee shall comply with the 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. The stacks to which this requirement is applicable are identified as S1a, S2, S3, S4, S5, S6, S7, S8, S9, S10a, S10b, and S11b.

(b) Any change in an applicable stack that will cause a violation of the ambient air quality standards or exceed GEP stack height shall require prior approval from IDEM, OAM.

C.8 Asbestos Abatement Projects - Accreditation [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

Prior to the commencement of any demolition or renovation activities, the Permittee shall use an Indiana accredited asbestos inspector to inspect thoroughly the affected facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos, including Category I and Category II nonfriable asbestos containing material. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements

C.9 Performance Testing [326 IAC 3-2.1]

(a) All testing shall be performed according to the provisions of 326 IAC 3-2.1 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by IDEM, OAM.

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 Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days before the intended test date.

(b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Monitoring Requirements

C.10 Compliance Monitoring

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after the postmarked submittal date of the Affadavit or Construction. If, due to circumstances beyond its control, this schedule cannot be met, the Permittee shall notify:

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

in writing, no more than ninety (90) days after the postmarked submittal date of the Affadavit of Construction, with full justification of the reasons for the inability to meet this date and a schedule which it expects to meet. If a denial of the request is not received before the monitoring is fully implemented, the schedule shall be deemed approved.

C.11 Maintenance of Monitoring Equipment

(a) In the event that a breakdown of the 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 frequencies no less once per hour while the process is in operation 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]

Any monitoring or testing performed to meet the requirements of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.13 Pressure Gauge Specifications

Whenever a condition in this permit requires the measurement of the 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.

C.14 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

(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

(3) 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 Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the 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 mandatory 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 is federally enforceable.

Corrective Actions and Response Steps

C.15 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 Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within 180 days from the date on which this source commences operation.

(c) If the ERP is disapproved by IDEM, OAM, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP. If after this time, the Permittee does not submit an approvable ERP, then IDEM, OAM, shall supply such a plan.

(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, OAM, 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.16 Compliance Monitoring Plan - Failure to Take Response Steps

(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. This compliance monitoring plan is comprised of:

(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, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after the postmarked submittal date of the Affadavit of Construction by the Permittee and maintained on site, and is comprised of:

(A) Response steps that will 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 such 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, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

(c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) The monitoring equipment malfunctioned, giving a false reading. 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 or;

(3) An automatic measurement was taken when the process was not operating; or

(4) The process has already returned 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.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(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, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with

the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected facility.

Record Keeping and Reporting Requirements

C.18 Emission Statement [326 IAC 2-6]

(a) The Permittee shall submit a certified, annual emission statement 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 meet the following requirements:

(1) Indicate actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);

(2) Indicate actual emissions of other regulated pollutants 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 Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) 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, OAM, on or before the date it is due.

C.19 Monitoring Data Availability

(a) With the exception of performance tests conducted in accordance with Section C- Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.20 General Record Keeping Requirements

(a) Records of all required monitoring data 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 and available within one (1) hour upon verbal request of an IDEM, OAM, representative, for a minimum of three (3) years. They may be stored elsewhere for the remaining two (2) years providing they are made available within thirty (30) days after written request.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this permit;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented within ninety (90) days after the postmarked submittal date of the Affadavit of Construction.

C.21 General Reporting Requirements

(a) To affirm that the source has met all the requirements stated in this permit, the source shall submit a Quarterly Compliance Report. Any deviation from the requirements and the date[s] of each deviation must be reported.

(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 Management
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, OAM, on or before the date it is due.

(d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period.

(e) All instances of deviations must be clearly identified in such reports. A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

(1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or

(2) An emergency as defined in 326 IAC 2-7-1(12); or

(3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.

(4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring is a deviation.

(f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.

(g) The first report shall cover the period commencing on the date of submittal of the affadavit of construction and ending on the last day of the reporting period.

Stratospheric Ozone Protection

C.22 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 CONDITIONS

All Emission Units Listed In Section A.2 (pages 4, 5, and 6 of 39)

Emission Limitations and Standards

D.1.1 Opacity Limitations [40 CFR 60.302, Subpart DD]

Pursuant to New Source Performance Standards (NSPS), Part 60.302, Subpart DD, on or after the 60th day of achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup, the visible emissions from:

(a) the grain elevator shall not exceed 0 percent opacity for fugitive and process emissions.

(b) the truck scale receiving system shall not exceed fugitive visible emissions of 5 percent opacity and process visible emissions of 0 percent opacity.

(c) the day bin and shift surge bin for whole bean storage shall not exceed 0 percent opacity for fugitive and process emissions.

(d) the soybean cleaning operations shall not exceed 0 percent opacity for fugitive and process emissions.

D.1.2 Particulate Matter Limitations for Grain Handling [40 CFR 60.302, Subpart DD]

Pursuant to New Source Performance Standards (NSPS), Part 60.302, Subpart DD, on or after the 60th day of achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup, particulate matter (PM) emissions shall be limited as follows:

(a) the grain elevator and truck scale receiving system, both exhausting to stack S1a, to no more than 0.01 grains per dry standard cubic foot;

(b) the day bin and shift surge bin for whole bean storage exhausting to Stack S1b to no more than 0.01 grains per dry standard cubic foot; and

(c) the soybean cleaning operations, consisting of the scalperator, screenings bin and hot dehulling surge bin, all exhausting to stack S2, to no more than 0.01 grains per dry standard cubic foot.

D.1.3 Particulate Matter Limitations for Sources of Indirect Heating [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate matter (PM) emissions from the two (2) 75.0 million British thermal units per hour boilers shall be limited to 0.355 pounds per million British thermal units heat input, each. This limit is based on the following equation:

$Pt = 1.09/Q^{0.26}$ where Pt = Pounds of particulate matter emitted per million British thermal units heat input for each facility.

Q = Total source maximum operating capacity rating in million British thermal units per hour heat input.

D.1.4 Particulate Matter Limitations [326 IAC 6-3-2][326 IAC 2-2]

(a) The Permittee shall comply with the following PM emission limitations:

(1) The grain elevator and truck scale receiving system, both exhausting to stack S1a, shall be limited to 0.56 pounds of PM per hour.

(2) The day bin and shift surge bin for whole bean storage, both exhausting to stack S1b, shall be limited to 0.03 pounds of PM per hour.

(3) The soybean cleaning operations, consisting of the scalperator, screenings bin, and hot dehulling surge bin, all exhausting to stack S2, shall be limited 0.06 pounds of PM per hour.

(4) The hot dehulling operations including the bean heater, three (3) jet dryers, three (3) hulloosenators, three (3) split soy aspirators, three (3) crackers, three (3) conditioners, one (1) hulls screener, and one (1) secondary dehulling aspirator exhausting through stack S3 shall be limited to total PM emissions of 18.0 pounds per hour.

(5) The flaking operations consisting of ten (10) flakers exhausting to stack S4 shall be limited to 0.39 pounds of PM per hour.

(6) The meal dryer exhausting to stack S5 shall be limited to 14.4 pounds of PM per hour.

(7) The meal cooler exhausting to stack S6 shall be limited to 15.2 pounds of PM per hour.

(8) The meal grinding and sizing operations including the one (1) meal screen, two (2) hammermills, and one (1) aspirator exhausting to stack S7 shall be limited to 0.13 pounds of PM per hour.

(9) The two (2) hull grinders exhausting to stack S8 shall be limited to 0.13 pounds of PM per hour.

(10) The two (2) meal shift tanks, the ground hull tank, and the meal blending operations, all exhausting to stack S9 shall be limited to 0.34 pounds of PM per hour.

(11) The four (4) meal loading bins exhausting to stack S10c shall be limited to 0.34 pounds of PM per hour, total.

(12) The truck meal loadout consisting of the truck meal loading scale exhausting to stack S10a shall be limited to 0.43 pounds of PM per hour.

(13) The rail meal loadout consisting of the rail meal loading scale exhausting to stack S10b will be limited to 0.43 pounds of PM per hour.

(14) The salt storage bin exhausting to stack S11b will be limited to 0.03 pounds of PM per hour.

(b) The limits contained in D.1.4(a) (1) through (14) will satisfy the requirements of 326 IAC 6-3.

(c) The PM limits contained in (1) through (14) of this condition result in PM and PM_{10} emissions of no more than 50.5 pounds per hour, which is equivalent to 221 tons per year. The total PM emissions including combustion and fugitive emissions shall not exceed 226 tons per year. This will make the requirements of 326 IAC 2-2 not applicable.

(d) Any change or modification which may increase the emissions of PM or PM_{10} shall require approval by IDEM, OAM, before such a change may occur.

D.1.5 New Facilities; General Reduction Requirements and New Source Air Toxics Control [326 IAC 8-1-6] [326 IAC 2-1-3.4]

Pursuant to 326 IAC 8-1-6 and 326 IAC 2-1-3.4, the mineral oil absorber in conjunction with the following emission limits and control devices shall be considered the best available and maximum achievable control technology (BACT and MACT) for the soybean processing plant. The source shall comply with the following conditions:

(a) The VOC limits shall be based on a 12-month rolling average and are as follows:

Facility	Control	VOC (Hexane) Emission and Usage Limits
Oil extractor system	mineral oil absorber	0.069 lb/ton
Meal dryer	none	0.228 lb/ton
Meal cooler	none	0.083 lb/ton
Overall usage for the first year	--	0.24 gallon/ton
Overall usage after the first year	--	0.1612 gallon/ton

(b) The amount of soybeans processed shall not exceed 730,000 tons per year, based on a 12-month rolling total. This limit on the amount of soybeans processed in conjunction with the VOC limits will make the requirements of 326 IAC 2-2, PSD not applicable based on PM and VOC emissions as indicated in C.1.

(c) The Permittee shall install a refrigerated condenser on the main outlet vent of the mineral oil absorber.

(d) The Permittee shall install a soybean oil dryer in the oil distillation system to reduce residual solvent content in the oil produced.

(e) The Best Available Control Technology (BACT) and Maximum Achievable Control Technology (MACT) for the hexane loss includes an enhanced inspection, maintenance and

repair program as outlined in Condition D.1.13.

(f) This soybean processing plant shall also minimize VOC (hexane) losses to the atmosphere by training operators and supervisors of the plant.

D.1.6 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements

D.1.7 Testing Requirements [326 IAC 2-1-3] [40 CFR 60.303, Subpart DD]

(a) During the period between 60 and 180 days after achieving the maximum production rate, the Permittee shall perform PM testing at:

(1) the operations exhausting to S1a, S1b, and S2 using methods specified in 40 CFR 60.303, Subpart DD (Standards of Performance for Grain Elevators; Test methods and procedures) to determine compliance with D.1.1, D.1.2, and D.1.4;

(2) stacks S3, S5, and S6, and at least one (1) of the following four (4) stacks; S7, S8, S10a, and S10b to determine compliance with D.1.4.

(b) During the period between 60 and 180 days after achieving the maximum production rate, the Permittee shall perform VOC testing at stacks S5, S6, and S12 to determine compliance with D.1.5.

(c) These tests shall be performed pursuant to 326 IAC 3-2.1 (Source Sampling Procedures), as stated in C.9, utilizing methods approved by the Commissioner.

D.1.8 Particulate Matter (PM) [326 IAC 6-3-2] [40 CFR 60.302, Subpart DD]

(a) The baghouses and cyclones for PM control shall be in operation at all times when the corresponding equipment is in operation.

(b) The level indicators shall be installed at the cones of the meal dryer and meal cooler cyclones.

(c) The discharge portions of the grain dryer shall be equipped with a column plate, with perforations not greater than 0.094 inches in diameter.

(d) the source shall comply with the following:

(1) good housekeeping and equipment maintenance procedures shall be implemented.

(2) emissions shall be minimized in receiving, handling, and shipping operations by appropriate methods. These may include but need not be limited to, dust collection systems, windscreens, baffles, restricted hopper openings, enclosed transfer points, flexible drop spouts and/or sleeves.

D.1.9 Volatile Organic Compounds (VOC) [326 IAC 8-1-6] [326 IAC 2-1-3.4]
Pursuant to 326 IAC 8-1-6 and 326 IAC 2-1-3.4, the mineral oil absorber, refrigerated condenser and soybean oil dryer for VOC control shall be in operation at all times when the soybean processing plant is in operation.

Compliance Monitoring Requirements

D.1.10 Visible Emissions Notations

(a) Visible emission notations of all exhaust to the atmosphere from the fabric filters (baghouses) and cyclones shall be performed once per day. A trained employee will 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.

D.1.11 Parametric Monitoring for Baghouses

The Permittee shall take readings of the total static pressure drop across the baghouse tubesheets, at least once per day while the baghouse is in operation when exhausting to the atmosphere. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 1 and 12 inches of water. The Preventive Maintenance Plan for these baghouses shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of this range for any one reading.

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

D.1.12 Broken Bag or Failure Detection

In the event that bag failure has been observed:

(a) The affected filters will be shut down immediately or as soon as it is safe to do so until the failed units have been repaired or replaced.

(b) Within eight (8) 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) hours of discovery of the failure and

shall include a timetable for completion.

D.1.13 New Facilities; General Reduction Requirements and New Source Air Toxics Control Monitoring [326 IAC 8-1-6] [326 IAC 2-1-3.4]

(a) The mineral oil absorption vent VOC (hexane) emission rate shall be determined daily by measuring the airflow rate and the concentration of the hexane in the air stream. This concentration will be determined by measuring the percent lower explosive limit (LEL). The percent LEL shall be maintained within a range established by the latest compliance stack test. Airflow can be determined by a gas analyzer or by a hand held unit and/or calculations when the gas analyzer proves unreliable.

(b) The hexane emission rate from the dryer cyclones and cooler cyclone shall be determined by laboratory test if the lower meal temperature of the desolventizer is below 215°F. If the meal temperature of the desolventizer is above 215°F, the hexane emission rate will be based on the compliance test results. When the process is in operation, an electronic data management system (EDMS) shall record the instantaneous temperature on a frequency of not less than once per hour. As an alternate to installing an EDMS, manual readings shall be taken not less than once per hour.

(c) The mineral oil temperature to the absorber shall be kept below 70°F or no more than 5°F higher than the ambient wet bulb temperature when the ambient wet bulb temperature is greater than 75°F. When the process is in operation, an electronic data management system (EDMS) shall record the instantaneous temperature on a frequency of not less than once per hour. As an alternate to installing an EDMS, manual readings shall be taken not less than once per hour.

(d) The mineral oil to the mineral oil stripping column shall be kept at a minimum of 180°F for adequate stripping of the absorbed hexane from the oil. When the process is in operation, an electronic data management system (EDMS) shall record the instantaneous temperature on a frequency of not less than once per hour. As an alternate to installing an EDMS, manual readings shall be taken not less than once per hour.

(e) The flow rate of the mineral oil absorber shall be monitored and recorded at least once every calendar day when in operation. The flow rate shall be maintained within a range determined by the latest compliance stack test.

(f) The Best Available Control Technology (BACT) and Maximum Achievable Control Technology (MACT) for the hexane loss includes an enhanced inspection, maintenance and repair program. Within 60 days of achieving full production, but in no case later than 180 days after initial startup, the Permittee shall institute the following enhanced inspection, maintenance, and repair program for the solvent extraction portion of the installation. This requirement applies only to equipment components containing or contacting a process stream with a VOC concentration of ten percent (10%) by weight or more. This requirement does not apply to equipment components operating under negative pressure or to heavy liquid service. Heavy liquid service refers to liquids in which less than ten percent (10%) evaporates at 300°F.

(1) For pumps, the following inspection and repair requirements shall apply:

(A) For the first year:

(i) Weekly visual check for leakage; and

(ii) semi-annual organic vapor analyzer inspection (leak definition = 500 ppm above background concentrations).

(B) After the first year:

(i) Weekly visual check for leakage; and

(ii) annual organic vapor analyzer inspection (leak definition = 500 ppm above background concentrations).

(iii) When a unit has a leak detected during an annual organic vapor analyzer inspection, the frequency of organic vapor analyzer inspections shall become semi-annual (leak definition = 500 ppm above background concentrations).

(iv) When that unit has no leak detected for two (2) consecutive semi-annual vapor analyzer inspections, the frequency of inspections shall return to annual.

(2) For valves, the following inspection and repair requirements shall apply:

(A) For the first year:

semi-annual organic vapor analyzer inspection (leak definition = 500 ppm above background concentrations).

(B) After the first year:

(i) annual organic vapor analyzer inspection (leak definition = 500 ppm above background concentrations).

(ii) When a unit has a leak detected during an annual organic vapor analyzer inspection, the frequency of organic vapor analyzer inspections shall become semi-annual (leak definition = 500 ppm above background concentrations).

(iii) When that unit has no leak detected for two (2) consecutive semi-annual vapor analyzer inspections, the frequency of inspections shall return to annual.

(3) For pressure relief devices, the following inspection and repair requirements shall apply:

(A) No later than five (5) calendar days after a pressure release, the pressure release device shall be monitored to confirm conditions of no detectable

emissions, as indicated by an instrument reading of less than 500 ppm above background concentrations.

(B) Any pressure relief device that is equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device is exempt from D.1.13(f)(3).

(4) For connectors, flanges, and seals other than those covered in D.1.13(f) (1), (2), and (3), the following inspection and repair requirements shall apply:

Annual organic vapor analyzer inspections (leak definition = 10,000 ppm above background concentrations).

(5) The Permittee shall determine compliance with the standards in D.1.13(f) (1) through (4) above by using the procedures of 40 CFR Part 60, Appendix A, Method 21. The instrument shall be calibrated before each use by the procedures as specified in Method 21.

(6) (A) The Permittee shall tag all leaking components within 24 hours of leak detection with a weatherproof and readily visible alpha-numeric identification tag.

(B) Once a leaking component is detected, first-attempt repairs must be done within five (5) days and be completed within 15 days of detecting the leak components.

(C) If the leak repair is scheduled to occur during a day when the daily average ambient air temperature is below 40°F, the leak repair may be delayed until a day when the daily average ambient air temperature is above 40°F so that the plant may shut down for repairs.

(7) (A) The Permittee shall maintain records of the following to verify compliance with the enhanced inspection:

(i) the results of instrument calibration checks,

(ii) equipment inspected,

(iii) date of inspection, and

(iv) determination of whether a leak was detected.

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

(i) equipment, operator, and instrument identification number;

(ii) measured concentration (ppm) and background (ppm);

(iii) leak identification number associated with the corresponding alpha-numeric tag;

(iv) date of repair;

(v) reason for non-repair if unable to repair within 5 to 15 days of detection;

(vi) maintenance recheck if repaired (date, concentration, background); and

(vii) any appropriate comments.

(8) The requirements of this conditions shall be replaced by the requirements of the NESHAP for vegetable oil production upon the effective date of the NESHAP. However, compliance with the standard shall be governed by the timetable as stated in the Clean Air Act, Section 112(i)(6) or Section 112 (i)(7), whichever is applicable.

(g) The vent gases from the hexane storage tanks shall be directed to the absorber system.

Record Keeping and Reporting Requirements

D.1.14 Malfunction Condition [326 IAC 1-6-2]

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

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

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual

manner. [326 IAC 1-2-39]

D.1.15 Record Keeping Requirements

(a) Pursuant to 40 CFR 60.116b, Subpart Kb, the owner or operator shall keep readily accessible records showing the dimensions of the one (1) hexane tank, one (1) hexane miscella work tank, three (3) fixed roof soybean oil tanks, and three (3) fixed roof soybean oil day tanks and an analysis showing the capacity of each tank for the life of the tank.

(b) Pursuant to 40 CFR 60.48c, Subpart Dc, the owner or operator shall record and maintain records of the amounts of natural gas combusted in the boilers each day. These records shall be kept for a minimum of 24 months.

(c) To document compliance with Condition D.1.5, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC emission limits established in Condition D.1.5.

(1) The amount of hexane used in gallons per month;

(2) The process weight rate in tons of soybeans crushed per month;

(3) A log of the dates of use; and

(4) The weight of VOC emitted from the oil extractor system, meal dryers and meal cooler per ton of soybeans crushed for each compliance period based on the compliance monitoring conditions of D.1.13.

(d) To document compliance with Condition D.1.5 and D.1.9, the Permittee shall maintain a log of inspections contained in D.1.13(f) and as prescribed by the Preventive Maintenance Plan.

(e) To document compliance with Condition D.1.8, the Permittee shall maintain records of daily visible emission notations of the stack S1a, S1b, S2, S3, S4, S5, S6, S7, S8, S9, S10a, S10b, S10c, and S11b exhausts.

(f) To document compliance with Condition D.1.2 and D.1.4, the Permittee shall maintain the following:

(1) Daily records of the baghouse tubesheet total static pressure drop during normal operation when venting to the atmosphere.

(2) Documentation of all response steps implemented, per event.

(3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.

(4) Quality Assurance/Quality Control (QA/QC) procedures.

(5) Operator standard operating procedures (SOP).

(6) Manufacturer's specifications or its equivalent.

(7) Equipment "troubleshooting" contingency plan.

(8) Documentation of the dates vents are redirected.

(g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.16 Reporting Requirements

(a) A quarterly summary of the information to document compliance with Condition D.1.5 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.

(b) The Permittee shall certify within thirty (30) days after the end of the quarter being reported, using the reporting form located at the end of this permit, or its equivalent, that natural gas was fired in the boiler(s) at all times during the report period.

(c) At the end of each calendar year, the company shall submit to IDEM a progress report of efforts taken to reduce hexane emissions from the plant.

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

NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: CSE Processing, LLC
Source Address: Parrot Road, New Haven, Indiana 46774
Mailing Address: P.O. Box 323, New Haven, Indiana 46774
CP: 003-8716-00281

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

Report period
Beginning: _____
Ending: _____

Boiler Affected	Alternate Fuel	Days burning alternate fuel 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:

Date:

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

Quarterly Report

Source Name: CSE Processing, LLC
Source Address: Parrot Road, New Haven, Indiana 46774
Mailing Address: P.O. Box 323, New Haven, Indiana 46774
CP: 003-8716-00281
Facility: Entire soybean processing plant
Limit: 730,000 tons of soybeans crushed per year, based on a 12-month rolling total

Year: _____

Month	Soybeans crushed this month (tons)	Soybeans crushed last 11 months (tons)	Total soybeans crushed in 12 months (tons)

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: _____

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

Quarterly Report

Source Name: CSE Processing, LLC
Source Address: Parrot Road, New Haven, Indiana 46774
Mailing Address: P.O. Box 323, New Haven, Indiana 46774
CP: 003-8716-00281
Facility: Entire soybean processing plant
Parameter: VOC (hexane)
Limit: 0.24 gallons per ton for first year, 0.1612 gallons per ton thereafter, based on 12-month rolling average

Year: _____

Month	Hexane usage this month (gallons/ton)	Hexane usage last 11 months (gallons/ton)	Hexane usage in 12 months (gallons/ton)

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: _____

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

Quarterly Report

Source Name: CSE Processing, LLC
Source Address: Parrot Road, New Haven, Indiana 46774
Mailing Address: P.O. Box 323, New Haven, Indiana 46774
CP: 003-8716-00281
Facility: Mineral oil extraction system
Parameter: VOC (hexane)
Limit: 0.069 pounds per ton of soybeans processed, based on a 12-month rolling average

Year: _____

Month	Hexane emissions this month (lbs/ton)	Hexane emissions last 11 months (lbs/ton)	Hexane emissions in 12 months (lbs/ton)

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: _____

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

Quarterly Report

Source Name: CSE Processing, LLC
Source Address: Parrot Road, New Haven, Indiana 46774
Mailing Address: P.O. Box 323, New Haven, Indiana 46774
CP: 003-8716-00281
Facility: Meal dryer
Parameter: VOC (hexane)
Limit: 0.228 pounds per ton of soybeans processed, based on 12-month rolling average

Year: _____

Month	Hexane emissions this month (lbs/ton)	Hexane emissions last 11 months (lbs/ton)	Hexane emissions in 12 months (lbs/ton)

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: _____

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

Quarterly Report

Source Name: CSE Processing, LLC
Source Address: Parrot Road, New Haven, Indiana 46774
Mailing Address: P.O. Box 323, New Haven, Indiana 46774
CP: 003-8716-00281
Facility: Meal cooler
Parameter: VOC (hexane)
Limit: 0.083 pounds per ton of soybeans processed, based on 12-month rolling average

Year: _____

Month	Hexane emissions this month (lbs/ton)	Hexane emissions last 11 months (lbs/ton)	Hexane emissions in 12 months (lbs/ton)

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: _____

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
FAX NUMBER - 317 233-5967

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

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE: IT HAS POTENTIAL TO EMIT 25 LBS/HR PARTICULATES ?_____, 100 LBS/HR VOC ?_____, 100 LBS/HR SULFUR DIOXIDE ?_____ OR 2000 LBS/HR OF ANY OTHER POLLUTANT ?_____ EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

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

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

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

COMPANY: CSE Processing, LLP PHONE NO. 219 - 749 - 0022

LOCATION: (CITY AND COUNTY) New Haven / Allen

PERMIT NO. 003-8716 AFS PLANT ID: 003-00281 AFS POINT ID: _____ INSP: _____

CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 19____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 19____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM_{10}, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

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

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

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

326 IAC 1-6-1 Applicability of rule

Sec. 1. The requirements of this rule (326 IAC 1-6) shall apply to the owner or operator of any facility which has the potential to emit twenty-five (25) pounds per hour of particulates, one hundred (100) pounds per hour of volatile organic compounds or SO2, or two thousand (2,000) pounds per hour of any other pollutant; or to the owner or operator of any facility with emission control equipment which suffers a malfunction that causes emissions in excess of the applicable limitation.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. (Air Pollution Control Board; 326 IAC 1-2-39; filed Mar 10, 1988, 1:20 p.m.: 11 IR 2373)

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

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

_____

_____

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for New Construction and Operation

Source Background and Description

Source Name:	CSE Processing, LLC
Source Location:	Parrot Road, New Haven, Indiana 46774
County:	Allen
Construction Permit No.:	CP 003-8716-00281
SIC Code:	2075
Permit Reviewer:	CarrieAnn Ortolani

The Office of Air Management (OAM) has reviewed an application from CSE Processing, LLC relating to the construction and operation of a soybean processing plant. All conveyors at the plant will are enclosed. This new source consists of the following equipment:

(a) One (1) grain elevator, equipped with a fabric filter as air pollution control exiting through stack S1a, maximum capacity: 150 tons of soybeans per hour.

(b) One (1) truck scale receiving system, equipped with a fabric filter as air pollution control exiting through stack S1a, maximum capacity: 90 tons of soybeans per hour.

(c) One (1) day bin for soybean storage, equipped with a fabric filter as air pollution control exiting through stack S1b, maximum capacity: 2,000 tons, maximum throughput: 150 tons of soybeans per hour.

(d) One (1) shift surge bin for soybean storage, equipped with a fabric filter as air pollution control exiting through stack S1b, maximum capacity: 140 tons, maximum throughput: 110 tons of soybeans per hour.

(e) One (1) scalperator for soybean cleaning, equipped with a fabric filter as air pollution control exiting through stack S2, maximum capacity: 140 tons of soybeans per hour.

(f) One (1) screenings bin for soybean storage, equipped with a fabric filter as air pollution control exiting through stack S2, maximum capacity 140 tons, maximum throughput: 100 tons of soybeans per hour.

(g) One (1) hot dehulling surge bin for soybean storage, equipped with a fabric filter as air pollution control exiting through stack S2, maximum capacity: 140 tons, maximum throughput: 100 tons per hour.

(h) One (1) bean heater, equipped with cyclones as air pollution controls exiting through stack S3, maximum capacity: 100 tons per hour.

(i) Three (3) jet dryers, equipped with cyclones as air pollution controls exiting through stack S3, maximum capacity: 33 tons per hour, each.

(j) Three (3) hulloosenators, equipped with cyclones as air pollution controls exiting through

stack S3, maximum capacity: 33 tons per hour, each.

(k) Three (3) split soy aspirators, equipped with cyclones as air pollution controls exiting through stack S3, maximum capacity: 33 tons per hour, each.

(l) Three (3) crackers, equipped with cyclones as air pollution controls exiting through stack S3, maximum capacity: 33 tons per hour, each.

(m) Three (3) conditioners, equipped with cyclones as air pollution controls exiting through stack S3, maximum capacity: 33 tons per hour, each.

(n) One (1) hulls screener, equipped with cyclones as air pollution controls exiting through stack S3, maximum capacity: 4 tons per hour.

(o) One (1) secondary dehulling aspirator, equipped with cyclones as air pollution controls exiting through stack S3, maximum capacity: 4 tons per hour.

(p) Ten (10) flakers, equipped with a fabric filter as air pollution control exiting through stack S4, maximum capacity: 125 tons of cracked/dehulled soybeans per hour, total.

(q) One (1) meal dryer with two (2) sections, equipped with two (2) cyclones as air pollution controls exiting through stack S5, maximum capacity: 83 tons of soybean meal per hour.

(r) One (1) meal cooler, equipped with a cyclone as air pollution control exhausting through stack S6, maximum capacity 83 tons of soybean meal per hour.

(s) One (1) meal screen, equipped with a cyclone and a fabric filter as air pollution control exiting through stack S7, maximum capacity: 75 tons of soybean meal per hour.

(t) Two (2) hammermills, equipped with a cyclone and a fabric filter as air pollution control exiting through stack S7, maximum capacity: 80 tons of soybean meal per hour, total.

(u) One (1) aspirator, equipped with a cyclone and a fabric filter as air pollution control exiting through stack S7, maximum capacity: 75 tons of soybean meal per hour.

(v) Two (2) hull grinders, equipped with a fabric filter for air pollution control exiting through stack S8, maximum capacity: 20 tons per hour, total.

(w) Two (2) meal shift tanks, equipped with a fabric filter for air pollution control exiting through stack S9, maximum capacity: 3,400 tons, maximum throughput: 75 tons of soybean meal per hour, total.

(x) One (1) ground hull tank, equipped with a fabric filter for air pollution control exiting through stack S9, maximum capacity: 500 tons, maximum throughput: 13 tons of ground soybean hulls per hour.

(y) Four (4) meal loading bins, equipped with a fabric filter as air pollution control exiting through stack S10c, maximum capacity: 1,400 tons, maximum throughput: 104 tons of soybean meal per hour, total.

(z) One (1) truck meal loading scale, equipped with a fabric filter as air pollution control exiting through stack S10a, maximum throughput: 70 tons of soybean meal per hour.

(aa) One (1) rail meal loading scale exiting through stack S10b, equipped with a fabric filter as air pollution control, maximum throughput: 103 tons of soybean meal per hour.

(bb) One (1) salt storage bin exiting through stack S11b, equipped with a fabric filter for air pollution control, maximum capacity: 75 tons, maximum throughput: 25 tons of salt per hour.

(cc) Two (2) natural gas fired boilers of which one is a backup boiler exhausting through stack S11a, heat input capacity: 75 million British thermal units per hour, each.

(dd) One (1) hexane storage tank, capacity: 17,000 gallons of hexane.

(ee) One (1) mineral oil system with an oil extractor and a mineral oil absorber for hexane recovery and emission control, exiting through stack S12, maximum throughput: 83 tons of soybean meal per hour.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{E}F)
S1a	Receiving	not available	not available	2,000	68
S1b	Day Bin & Surge Bin	not available	not available	700	68
S2	Soybean Cleaning	not available	not available	1,500	68
S3	Hot Dehulling	not available	not available	27,000	150
S4	Flaking	not available	not available	9,000	120
S5	Meal Dryer	52.5	4.0	26,400	172
S6	Meal Cooler	52.5	4.0	26,400	172
S7	Meal Grinding/ Sizing	not available	not available	3,000	68
S8	Hull Grinding	not available	not available	3,000	68
S9	Meal Blending	not available	not available	8,000	68
S10a	Truck Loading Scale	not available	not available	10,000	68
S10b	Rail Loading Scale	not available	not available	10,000	68
S10c	Meal Loading Bins	not available	not available	8,000	68
S11a	Boiler	not available	not available	not available	not available
S11b	Salt Storage	not available	not available	700	68
S12	Mineral Oil System	52.5	0.5	137	90

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Information, unless otherwise stated, 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 June 23, 1997, with additional information received on July 18, 1997, July 21, 1997 and August 21, 1997.

Emissions Calculations

See pages 1 through 3 of Appendix A (Emissions Calculation Spreadsheets) for detailed calculations.

Total Potential and Allowable Emissions

Indiana Permit Allowable Emissions Definition (after compliance with applicable rules, based on 8,760 hours of operation per year at rated capacity):

Pollutant	**Allowable Emissions** (tons/yr)	**Potential Emissions** (tons/yr)
Particulate Matter (PM)	249	1,913
Particulate Matter (PM_{10})	249	1,119
Sulfur Dioxide (SO_2)	0.197	0.197
Volatile Organic Compounds (VOC)	249	351
Carbon Monoxide (CO)	11.5	11.5
Nitrogen Oxides (NO_x)	46.0	46.0
Single Hazardous Air Pollutant (HAP)	350	350
Combination of HAPs	350	350

(a) Since the maximum allowable emissions based on 326 IAC 6-2-4 and 326 IAC 6-3-2 are greater than the allowable emissions based on 326 IAC 2-2, PSD, the allowable emissions are as indicated in 326 IAC 2-2. See attached spreadsheets for detailed calculations.

(b) Fugitive VOC emissions are counted towards potential VOC emissions, but not towards allowable VOC emissions based on 326 IAC 2-2, PSD. Potential VOC emissions are calculated with the mineral oil absorber in place. The allowable emissions of HAPs are greater than the allowable emissions of VOC only because the allowable emissions of HAPs include fugitive emissions.

(c) The allowable emissions of VOC, PM and PM_{10} based on the rules cited are less than the potential emissions, therefore, the allowable emissions of VOC, PM and PM_{10} are used for the permitting determination.

(d) Allowable emissions (as defined in the Indiana Rule) of PM, PM_{10}, and VOC are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction

permit is required.

(e) Allowable emissions (as defined in the Indiana Rule) of a single hazardous air pollutant (HAP) are greater than 10 tons per year and the allowable emissions of any combination of the HAPs are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, a construction permit is required.

County Attainment Status

(a) Volatile organic compounds (VOC) and oxides of nitrogen 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. Allen 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) Allen 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.

(c) Fugitive Emissions
Since this type of operation is not 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 for the equipment with fugitive VOC emissions, the fugitive VOC emissions are not counted toward determination of PSD applicability.

Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and as otherwise limited):

Pollutant	**Emissions** (tons/yr)
PM	221
PM_{10}	135
SO_2	0.197
VOC	202
CO	11.5
NO_X	46.0
Single HAP	350
Combination HAPs	350

Note: The HAPs emissions in the above table include fugitive emissions. The non-fugitive HAPs emissions will be limited to 201 tons per year.

(a) This new source is not a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source

categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

(b) The VOC emissions will be limited to 202 tons per year, excluding fugitive emissions. The PM, and PM_{10} emissions will be limited to 249 tons per year, each. Therefore, PSD requirements do not apply. The source complies with these limits by operating a mineral oil absorber for hexane emission control and cyclones and fabric filters for PM and PM_{10} control.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) VOC and PM_{10} is greater than or equal to 100 tons per year,

(b) a single hazardous air pollutant (HAP) is greater than or equal to 10 tons per year, and

(c) any combination of HAPs is greater than or equal to 25 tons/year.

This new source shall apply for a Part 70 (Title V) Operating Permit within twelve (12) months after this source becomes subject to Title V.

Federal Rule Applicability

(a) This soybean processing plant is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.301, Subpart DD). This rule requires that on or after the 60th day of achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup, the particulate emissions from:

(1) the grain elevator to be limited to 0 percent opacity.

(2) the grain elevator to be limited to no more than 0.01 grams per dry standard cubic foot.

(3) the truck scale receiving system to be limited to 5 percent opacity.

(4) the truck scale receiving system to be limited to no more than 0.01 grams per dry standard cubic foot.

(5) the day bin and shift surge bin for whole bean storage to be limited to 0 percent opacity.

(6) the day bin and shift surge bin for whole bean storage to be limited to no more than 0.01 grams per dry standard cubic foot.

(7) the soybean cleaning operations to 0 percent opacity.

(8) the soybean cleaning operations to no more than 0.01 grams per dry standard cubic

foot.

Emissions after controls from each of the stacks subject to this NSPS (S1a, S1b, and S2) are less than 0.01 grains per dry standard cubic foot (See page 1 of TSD Appendix A for detailed calculations). Therefore, these facilities will comply with the grain loading limitations of this NSPS. Compliance will be shown by operating fabric filters at all times while the corresponding equipment is in operation.

(b) The two (2) natural gas-fired 75.0 million British thermal units per hour steam generating boilers are subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.40c, Subpart Dc). This rule requires that:

(1) the owner or operator of the boilers submit notification of the date of construction, anticipated startup, and actual startup, including the design heat input capacity and the annual capacity factor at which the owner or operator anticipates operating the affected facility.

(2) the owner or operator of the boilers maintain records of the amounts of each fuel combusted each day.

(3) all records required be maintained by the owner or operator for a period of two years following the date of each record.

(4) There is no emission limitation specified for natural gas-fired boilers.

(c) The Hexane storage tank has a capacity greater than 40 cubic meters and less than 75 cubic meters. The tank, therefore, will be subject only to 326 IAC 12, (40 CFR Part 60.116b, Subpart Kb). This rule requires that the owner or operator keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel.

State Rule Applicability

326 IAC 1-7 (Stack Height)

(a) Stacks S1a, S1b, S2, S3, S4, S5, S6, S7, S8, S9, S10a, S10b, and S11b shall comply with the provisions of 326 IAC 1-7 (Stack Height Provisions), that apply to 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.

(b) Stacks will be constructed using good engineering practice (GEP) according to the following equation:

$S = H + 1.5 (L)$

where: S = Stack height, (feet)
H = Height of supporting or nearby structure (whichever is largest), (feet)
L = Lesser dimension (height or width) of the structure chosen for H, (feet)

(c) Any changes in the applicable stacks require prior approval from IDEM, OAM.

326 IAC 2-6 (Emission Reporting)

This facility is subject to 326 IAC 2-6 (Emission Reporting), because the source has the potential to emit more than 100 tons per year of VOC and PM_{10}. Pursuant to this rule, the owner/ operator of this facility must annually submit an emission statement of the facility. The annual statement must be received by July 1 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.

326 IAC 5-1-2 (Visible Emission Limitations)

The visible emissions from the stacks associated with the hot dehulling, flaking, meal drying, meal cooling, meal grinding/ sizing, hull grinding, meal blending, meal loadout, and boiler operations including meal, hull and salt storage facilities shall not exceed an average of 40 percent opacity in 24 consecutive readings and shall not exceed 60 percent opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period, each. The stacks regulated by 326 IAC 12 (40 CFR Part 60.301, Subpart DD) shall comply with the visible emission limitation indicated in the NSPS since the NSPS limitation is more stringent than 326 IAC 5-1-2.

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

The two (2) 75.0 rating million British thermal units per hour natural gas-fired boilers are subject 326 IAC 6-2 (Particulate Emissions Limitations for Sources of Indirect Heating). Pursuant to 326 IAC 6-2-4, the particulate matter (PM) emissions shall be limited to 0.355 pounds per million British thermal units heat input. See page 3 of TSD Appendix A for detailed calculations.

Potential PM emissions = [(13.7 lbs/MMCF) * (657.0 MMCF/yr)] / [(75.0 MMBTU/hr) * (8760 hrs/yr)] = 0.014 lbs/MMBTU

Based on this calculation, the potential emissions of 0.014 pounds per million British thermal units are less than the allowable emissions, therefore, these boilers comply with the rule.

326 IAC 6-3-2 (Particulate Emission Limitations)

Pursuant to 326 IAC 6-3-2, the PM emissions from the soybean processing plant should not exceed $E = 55.0P^{0.11} - 40$, where E = rate of emission in pounds per hour and P = process weight rate in tons per hour. For a process weight of 83 tons per hour, the PM emissions from the soybean processing plant will be limited to no more than 49.4 pounds per hour. Since the PM emissions after controls are 49.4 pounds per hour from the soybean processing plant, the plant will comply with 326 IAC 6-3-2. Compliance will be demonstrated by operating cyclones and fabric filters at all times when any of the corresponding equipment is in operation. See page 1 of TSD Appendix A for detailed calculations.

326 IAC 8-1-6 (Best Available Control Technology)

Since this soybean processing plant has the potential to emit more than 25 tons per year of VOC, 326 IAC 8-1-6 is applicable. Catalytic incineration, recuperative thermal incineration, regenerative thermal incineration, and carbon adsorption are not safe at a soybean processing plant where oil extraction takes place due to an explosion hazard. The applicant has agreed to install a mineral oil absorber, which is typically used at soybean processing plants with low airflows and high VOC inputs. The mineral oil absorber will serve as BACT for the soybean processing plant. The mineral

oil absorber limits VOC (Hexane) emissions to 13.2 pounds per hour from the mineral oil system (S12), 16 pounds per hour from the two (2) meal dryer cyclones (S5), and 16 pounds per hour from the meal cooler cyclone (S6), equivalent to total hexane emissions of 201 tons per year and total VOC emissions of 202 tons per year from the entire soybean processing plant, excluding fugitive emissions. See page 2 of TSD Appendix A for detailed calculations. As part of BACT, this soybean processing plant shall also implement the following workplace standards:

(a) minimize VOC (Hexane) losses to the atmosphere by training operators and supervisors of the plant.

(b) Cleanup rags shall be stored, transported, and disposed of in containers that are closed tightly.

(c) Storage containers used to store VOC and/or HAPs containing materials shall be kept covered when not in use.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

(a) This proposed new source will emit levels of air toxics greater than those that constitute major source applicability according to Section 112 of the Clean Air Act. The concentrations of these air toxics were modeled and found to be (in worst case possible) as indicated in the following table. The concentrations of these air toxics were compared to the Permissible Exposure Limits (PEL) developed by the Occupational Safety and Health Administration (OSHA). The Office of Air Management (OAM) does not have at this time any specific statutory or regulatory authority over these substances.

Air Toxic Emissions

Pollutant	**Rate** (lb/hr)	**Rate @ 8,760 hr/yr** (ton/yr)	**Rate @ 8,760 hr/yr** (ton/yr)	**Modeled Concentration** ($\mu g/m^3$)	**OSHA PEL** ($\mu g/m^3$)	**% OSHA PEL**
Hexane	80.0	350	350	3,050	160,000	1.91
TOTAL	80.0	350	350	3,050	160,000	1.91

Air Toxic Stacks

Stack ID	**Height** (feet)	**Diameter** (feet)	**Flow Rate** (acfm)	**Temperature** (EF)
S5	52.5	4.0	26,400	172.0
S6	52.5	4.0	26,400	172.0
S12	52.5	0.5	137	90.0

(b) See attached spreadsheets for detailed air toxic calculations.

(c) Since this new source is a major emitter of hazardous air pollutants, the source is subject to 326 IAC 2-1-3.4, New source air toxics control. The mineral oil absorber will serve as the maximum achievable control technology for this plant. The mineral oil absorber limits HAP (Hexane) emissions to 13.2 pounds per hour from the mineral oil system (S12), 16 pounds per hour, total, from the meal dryer cyclones (S5), and 16 pounds per hour from the meal cooler cyclone (S6), equivalent to total HAP emissions of 201 tons per year, excluding fugitive HAP emissions. See page 2 of TSD Appendix A for detailed calculations.

Conclusion

The construction of this soybean processing plant will be subject to the conditions of the attached proposed **Construction Permit No. CP 003-8716-00281.**

Appendix C: BACT Analysis
Hexane (VOC) Control

Company Name: CSE Processing, LLC
Address IN Zip: Parrot Road, New Haven, IN 46774
CP: 003-8716
Plt ID: 003-00281
Reviewer: CarrieAnn Ortolani
Date: June 23, 1997

BACT: Cost analysis for mineral oil absorber for meal dryers and coolers and building ventillation

Basis	Gas flow rate, Q	=	44,200	acfm (Meal DC + building ventilation)
	Base unit	=	18,000	acfm (largest available)
		=	$4,264,039	
	Mineral oil flow	=	10,407	gallons/min
	Mineral oil use (AS)	=	248,639,539	gallons/year
	Connected motors	=	1447	HP
	Steam use	=	267,879	#/hour
	Operating hours	=	8,760	hours/year

Consumer Price Index increase of 30% from 1988 to 1997
Equations and defaults from EPA/625/6-91/014 unless noted otherwise.

Calculation of estimated total capital costs for absorber

Direct Costs, DC

Absorber: 304 SS		10,470,585
Filter for DC gasses: 36,200 acfm, 304 SS, insulated, heat traced		321,618
MO pumps: 3 @ 6000 gpm (1 spare), 350 HP each, $50,000		150,000
MO filtration system: 0.25 gal/min per sq. ft @ $220/sq ft		9,158,240
MO filtration system: 0.25 gal/min per sq. ft @ $220/sq ft - being recoated		4,579,120
Filtration precoat deoiling/desolvenitizing (5.4 tph)		67,500
Precoat handling		243,000
Heat exchangers		371,250
Absorber condensate desolventizing (14 - 27gpm)		67,500
Absorber condensate waste water treatment (14 - 27gpm)		702,000
Cooling tower (16,100gpm @ $23/gpm)		370,300
Package boilers: 3 @ 150,000 #/hr		6,000,000
MO storage: 67,000 gal @ $1.80/gal		120,600
MO storage unload system		63,450
Total major item equipment cost, EC		32,685,163
Instruments and controls	0.10 * EC	3,268,516
Taxes	0.05 * EC	1,634,258
Freight	0.05 * EC	1,634,258
Total purchased equipment cost, PEC		**39,222,195**
Foundation and supports	0.12 * PEC	4,706,663
Erection and handling	0.40 * PEC	15,688,878
Electrical (multiplier adjusted)	0.04 * PEC	1,568,888
Piping (multiplier adjusted)	0.24 * PEC	9,413,327
Insulation (multiplier adjusted)	0.07 * PEC	2,745,554
Painting	0.01 * PEC	392,222
Site Preparation	As required, SP	10,000
Building	As required, BLD	30,000
Total of direct installation costs, DIC		**34,555,532**

Total Direct Costs **DC = PEC + DIC** **73,777,727**

Indirect Costs, IC

Engineering	0.10	PEC	3,922,220
Construction	0.20	PEC	7,844,439
Contractor fee	0.10	PEC	3,922,220
Start-up	0.01	PEC	392,222
Performance test	0.01	PEC	392,222
Contingencies	0.03	PEC	1,176,666
Total Indirect costs			17,649,988

TOTAL CAPITAL COSTS, TCC **= Direct Costs + Indirect Costs** **91,427,715**

Calculation of estimated annual costs for absorber

Direct Annual Costs, DAC

Annual Electricity Cost	0.059	$/kWh * HP *0.7457*HR	557,510
Solvent (MO)	1.03	$/gal * AS	256,098,725
Solvent disposal (MO)	0.67	$/gal * AS	166,588,491
Steam	4.40	$/1000 #*steam use*HR	10,325,120
Operating Costs, O (Based on 0.5 hrs/shift, 3 shifts/day, 365 days/year)			
a) Operating labor	13.00	$/hr * 1.3	9,253
b) Supervisory costs	15	% of labor	1,388
Maintenance Costs, M (Based on 0.5 hr/shift, 3 shifts/day, 365 days/year)			
a) Maintenance labor cost	15.00	$/hr * 1.3	10,676
b) Materials	100	% of maintenance	10,676

Indirect Annual Costs, IAC

Overhead	60% * (O + M)	19,196
Administrative	2% * TCC	1,828,554
Insurance	1% * TCC	914,277
Property Taxes	1% * TCC	914,277
Capital Recovery	16.28% * TCC	14,884,432
(Estimated as $i(1+i)^n/(1+i)^{n-1}$, where i=10%, and n=10 years)		

TOTAL ANNUAL COSTS **DAC + IAC** **452,162,575**

Tons of hexane collected from meal DC and ventilation system (estimated) 156

(Total of DC emissions + 1/2 of fugitive losses)

Potential emissions = 174 tons/yr

Percent collected = 90 %

COST PER TON REMOVED **2,895,694** **$/ton**

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

Company Name: CSE Processing, LLC
Address City IN Zip: Parrot Road, New Haven, IN 46774
CP: 003-8716
Plt ID: 003-00281
Reviewer: CarrieAnn Ortolani
Date: June 23, 1997

Only one (1) of the two (2) boilers operates at a time.

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
75.0	657.0

	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	13.7	13.7	0.6	140.0	2.8	35.0
Potential Emission in tons/yr	4.50	4.50	0.197	46.0	0.920	11.5

Methodology

MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors for NOx: Uncontrolled = 140, Low NOx Burner = 81, Flue gas recirculation = 30
Emission Factors for CO: Uncontrolled = 35, Low NOx Burner = 61, Flue gas recirculation = 37
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
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Allowable emissions according to 326 IAC 6-2-4:

Heat Input Capacity MMBtu/hr	PM allowable lbs/mmBtu	PM allowable emissions lbs/hr
75.0	0.355	26.6

Methodology
Allowable emissions (lbs/mmBtu) = 1.09/(Heat input capacity^0.26)
Allowable emissions (lbs/hr) = allowable (lbs/mmBtu) * heat input capacity (mmBtu/hr)

Appendix A: PM Emission Limitations
Soybean Manufacturing Operations

Company Name: CSE Processing, LLC
Address City IN Zip: Parrot Road, New Haven, IN 46774
CP: 003-8716
Plt ID: 003-00281
Reviewer: CarrieAnn Ortolani
Date: June 23, 1997

Stack ID	Process	Process weight (tons/hr)	Potential Emissions PM (lbs/hr)	Control Efficiency	Emissions after controls PM (lbs/hr)	326 IAC 6-3-2 Allowable PM (lbs/hr)
S1a	Truck Scale Receiving System	90	13.5	0.999	0.014	50.2
S1a	Whole Bean Leg (grain elevator)	150	124	0.999	0.124	55.4
S1b	Day Bin (soybeans)	150	7.50	0.999	0.008	55.4
S1b	Shift surge Bin (soybeans)	110	5.50	0.999	0.006	52.2
S2	Internal Operations (Cleaning)	100	83	0.999	0.083	51.3
S2	Screenings Bin	100	5.00	0.999	0.005	51.3
S2	Hot dehulling surge bin	100	5.00	0.999	0.005	51.3
S3	Hot Dehulling	100	360	0.95	18.0	51.3
S4	Flaking	125	46.3	0.999	0.046	53.5
S5	Meal Dryer	80	144	0.90	14.4	49.1
S6	Meal Cooler	80	152	0.90	15.2	49.1
S7	Meal Grinding/Sizing	75	255	0.999	0.255	48.4
S8	Hull Grinding	20	40.0	0.999	0.040	36.5
S9	Meal Shift Tanks (#1&#2)	75	3.75	0.999	0.004	48.4
S9	Ground hull tank	13	0.650	0.999	0.001	32.9
S9	Meal Blending	104	28.1	0.999	0.028	51.7
S10c	Meal loading bins (#1,#2,#3,&#4)	104	5.20	0.999	0.005	51.7
S10a	Truck meal loadout	70	18.9	0.999	0.019	47.8
S10b	Rail meal Loadout	103	27.8	0.999	0.028	51.6
S11b	Salt Storage	25	20.0	0.999	0.020	38.4

Methodology
Allowable emissions according to 326 IAC 6-3-2 (lbs/hr) = 55.0(Process weight(tons/hr)^0.11) - 40

The following calculations determine compliance with NSPS (Subpart DD), which limits stack emissions from the grain elevator, truck scale receiving system, day bin, shift surge bin, and cleaning operations to 0.01 gr/dscf, each:

The grain elevator and truck scale receiving system both exit through stack S1a

$$0.01\ \frac{\text{grains}}{\text{dscf}} * \mathbf{2000.000}\ \text{acfm} * \frac{528}{460 + \mathbf{68}\ \text{Temp}} * \frac{100 - 0\ \%\ \text{moisture}}{100} * 525600\ \frac{\text{minutes}}{\text{year}} * \frac{1}{7000\ \text{grains}} * \frac{1\ \text{ton}}{2000\ \text{lbs}} = \mathbf{0.751}\ \text{tons/yr}$$

Grain elevator and truck scale receiving system PM emissions after controls equal: 0.601 tons/yr These operations comply with the NSPS

The day bin and shift surge bin exit through stack S1b

$$0.01\ \frac{\text{grains}}{\text{dscf}} * \mathbf{700.000}\ \text{acfm} * \frac{528}{460 + \mathbf{68}\ \text{Temp}} * \frac{100 - 0\ \%\ \text{moisture}}{100} * 525600\ \frac{\text{minutes}}{\text{year}} * \frac{1}{7000\ \text{grains}} * \frac{1\ \text{ton}}{2000\ \text{lbs}} = \mathbf{0.263}\ \text{tons/yr}$$

The day bin and shift surge bin PM emissions after controls equal: 0.057 tons/yr These operations comply with the NSPS

The cleaning operations exit through stack S2

$$0.01\ \frac{\text{grains}}{\text{dscf}} * \mathbf{1500.000}\ \text{acfm} * \frac{528}{460 + \mathbf{68}\ \text{Temp}} * \frac{100 - 0\ \%\ \text{moisture}}{100} * 525600\ \frac{\text{minutes}}{\text{year}} * \frac{1}{7000\ \text{grains}} * \frac{1\ \text{ton}}{2000\ \text{lbs}} = \mathbf{0.563}\ \text{tons/yr}$$

The cleaning operations PM emissions after controls equal: 0.405 tons/yr These operations will comply with the NSPS

Appendix A: Emission Calculations
Soybean Manufacturing Operations

Company Name: CSE Processing, LLC
Address City IN Zip: Parrot Road, New Haven, IN 46774
CP: 003-8716
Plt ID: 003-00281
Reviewer: CarrieAnn Ortolani
Date: June 23, 1997

Process	Process weight (tons/hr)	Emission Factors PM (lbs/ton)	Emission Factors PM-10 (lbs/ton)	Emissions PM (lbs/hr)	Emissions PM-10 (lbs/hr)	Emissions PM (tons/yr)	Emissions PM-10 (tons/yr)	Control Efficiency	Emissions after controls PM	Emissions after controls PM-10
Truck Scale Receiving System	90	0.15	0.038	13.5	3.42	59.1	15.0	0.999	0.059	0.015
Whole Bean Leg (grain elevator)	150	0.825	0.200	124	30.0	542	131	0.999	0.542	0.131
Day Bin (soybeans)	150	0.05	0.013	7.50	1.88	32.9	8.21	0.999	0.033	0.008
Shift surge Bin (soybeans)	110	0.05	0.013	5.50	1.38	24.1	6.02	0.999	0.024	0.006
Internal Operations (Cleaning)	140	0.825	0.200	116	28.0	506	123	0.999	0.506	0.123
Screenings Bin	100	0.05	0.013	5.00	1.25	21.9	5.48	0.999	0.022	0.005
Hot dehulling surge bin	100	0.05	0.013	5.00	1.25	21.9	5.48	0.999	0.022	0.005
Hot Dehulling **	100	9.00	5.4	900	540	3942	2365	0.98	78.8	47.3
Flaking	125	0.37	0.23	46.3	28.8	203	126	0.999	0.203	0.126
Meal Dryer	83	1.8	1.08	149	89.6	654	393	0.90	65.4	39.3
Meal Cooler	83	1.9	1.16	158	96.3	691	422	0.90	69.1	42.2
Meal Grinding/Sizing	75	3.4	3.4	255	255	1117	1117	0.999	1.12	1.12
Hull Grinding	20	2.0	1.2	40.0	24.0	175	105	0.999	0.175	0.105
Meal Shift Tanks (#1&#2)	75	0.05	0.013	3.75	0.938	16.4	4.11	0.999	0.016	0.004
Ground hull tank	13	0.05	0.013	0.65	0.163	2.85	0.712	0.999	0.003	0.001
Meal Blending	104	0.27	0.04	28.1	4.16	123	18.2	0.999	0.123	0.018
Meal loading bins (#1,#2,#3,&#4)	104	0.05	0.013	5.20	1.3	22.8	5.69	0.999	0.023	0.006
Truck meal loadout	70	0.27	0.04	18.9	2.80	82.8	12.3	0.999	0.083	0.012
Rail meal Loadout	103	0.27	0.04	27.8	4.12	122	18.0	0.999	0.122	0.018
Salt Storage	25	0.8	0.4	20.0	10.0	87.6	43.8	0.999	0.088	0.044
				1908	1114	8359	4881		216	130

Process weight is determined by the equipment. In actuality, the Meal Dryer and Meal Cooler limit process weight to 83 tons per hour.
** Conservative emission factor provided by the manufacturer.

Methodology
Emissions = Process weight x Emission factor found in AP-42 Interim Sections 9.9 and 9.11 (11/95) and AIRS

Process	Process weight (tons/hr)	Allowable emissions (lbs/hr)	Allowable emissions (tons/yr)
Soybean processing	83	49.4	216

Methodology
Allowable emissions according to 326 IAC 6-3-2 (lbs/hr) = 55.0(Process weight(tons/hr)^0.11) - 40

The following calculations determine compliance with NSPS (subpart DD), which limits stack emissions from the grain elevator, truck scale receiving system, day bin, shift surge bin, and cleaning operations to 0.01 gr/dscf, each:

The grain elevator and truck scale receiving system both exit through stack S1a

$$0.01 \frac{\text{grains}}{\text{dscf}} * \mathbf{2000.000}\ \text{acfm} * \frac{528}{460 + \mathbf{68}\ \text{Temp}} * \frac{100 - 0\ \%\ \text{moisture}}{100} * \frac{525600\ \text{minutes}}{\text{year}} * \frac{1}{7000\ \text{grains}} * \frac{1\ \text{ton}}{2000\ \text{lbs}} = \mathbf{0.751}\ \text{tons/yr}$$

Grain elevator and truck scale receiving system PM emissions after controls equal: 0.601 tons/yr These operations comply with the NSPS

The day bin and shift surge bin exit through stack S1b

$$0.01 \frac{\text{grains}}{\text{dscf}} * \mathbf{700.000}\ \text{acfm} * \frac{528}{460 + \mathbf{68}\ \text{Temp}} * \frac{100 - 0\ \%\ \text{moisture}}{100} * \frac{525600\ \text{minutes}}{\text{year}} * \frac{1}{7000\ \text{grains}} * \frac{1\ \text{ton}}{2000\ \text{lbs}} = \mathbf{0.263}\ \text{tons/yr}$$

The day bin and shift surge bin PM emissions after controls equal: 0.057 tons/yr These operations comply with the NSPS

The cleaning operations exit through stack S2

$$0.01 \frac{\text{grains}}{\text{dscf}} * \mathbf{1500.000}\ \text{acfm} * \frac{528}{460 + \mathbf{68}\ \text{Temp}} * \frac{100 - 0\ \%\ \text{moisture}}{100} * \frac{525600\ \text{minutes}}{\text{year}} * \frac{1}{7000\ \text{grains}} * \frac{1\ \text{ton}}{2000\ \text{lbs}} = \mathbf{0.563}\ \text{tons/yr}$$

The cleaning operations PM emissions after controls equal: 0.550 tons/yr These operations will comply with the NSPS

Appendix A: Emission Calculations
HAP Emissions

Company Name: CSE Processing, LLC
Address City IN Zip: Parrot Road, New Haven, IN 46774
CP: 003-8716
Plt ID: 003-00281
Reviewer: CarrieAnn Ortolani
Date: June 23, 1997

The Mineral Oil Absorber is the standard control for a Soybean Processing Plant.

Hexane emissions from the Mineral Oil Absorber (Hexane Recovery):

air flow rate through stack (cubic feet per minute)	% LEL in stack	% hexane content in the air (cubic ft hex./cubic ft air)	density of hexane (lb/cubic ft)	minutes per hour	Hexane emissions (lbs/hr)	(tons/yr)
137	67.00%	1.20%	0.2	60	13.2	57.9

Hexane emissions from the Meal Dryer and Meal Cooler:

Assumptions provided by the manufacturer:

Hexane content of soybeans going into dryer section:	290	ppm by weight
Hexane content of finished soybean meal:	200	ppm by weight
Percent hexane emitted from the dryer section:	60.0%	
Percent hexane emitted from the cooler section:	40.0%	

Fact:

Maximum throughput through the dryer section:	83	tons per hour
Maximum throughput through the dryer section:	83	tons per hour

Emissions at the dryer cyclones:	8.96	pounds per hour
	39.3	tons per year
Emissions at the cooler cyclone:	5.98	pounds per hour
	26.2	tons per year
Emissions at the dryer cyclones with upset conditions:	16.0	pounds per hour
	70.1	tons per year
Emissions at the cooler cyclone with upset conditions:	16.0	pounds per hour
	70.1	tons per year

Process wastewater Hexane emissions:

Maximum hexane content of wastewater:	60	ppm by weight
Water flow rate:	10,000	pounds per hour

Emissions from the wastewater:	0.600	pounds per hour
	2.63	tons per year
Emissions from the Hexane Tank:	0.108	pounds per hour
	0.473	tons per year
Total Potential Hexane Emissions from point sources:	**45.9**	**pounds per hour**
	201	**tons per year**

Fugitive Hexane Emissions (based on emissions from a typical soybean processing plant):

Process	Emission factor (lbs of HAP/ton of beans)	Soybeans Processed (tons/hr)	Hexane Emissions (lbs/hr)	Hexane Emissions (tons/yr)
Hexane unloading	0.01	83	0.830	3.64
Equipment leaks	0.30	83	24.9	109
Start ups/ Shut downs	0.10	83	8.30	36.4
Total			**34.0**	**149**

Total Hexane Emissions: **80.0 pounds per hour**
350 tons per year

Appendix A: Emission Calculations
Hexane (VOC) Emissions

Company Name: CSE Processing, LLC
Address IN Zip: Parrot Road, New Haven, IN 46774
CP: 003-8716
Plt ID: 003-00281
Reviewer: CarrieAnn Ortolani
Date: June 23, 1997

Density of hexane	=	5.60	lbs hexane /gallon
Process limit	=	730,000	tons/yr
	=	83.33	tons/hr (annual average)
Target solvent loss	=	0.1612	gallons hexane/ton crush
	=	0.9026	lb hexane/ton crush
	=	329	tons hexane/year

Soybean Oil Extraction Volatile Organic Compounds (VOC) Emissions

Hexane is lost from the extraction and desolventizing operations in soybean extraction in many areas. These include:

Point sources

a) Vent system gas during normal operation
b) Meal dryers
c) Meal cooler
d) Hexane storage tank

Fugitive emissions

f) Plant start-up / shutdowns
g) Plant upsets
h) General - equipment failures/leaks
i) Solvent samples

Bound in product/by-product

j) Desolventized flakes (meal)
k) Process wastewater
l) Soybean oil

A. Normal operating conditions

Mineral Oil Absorber discharge	137	cfm air at 90F		
Mineral Oil Absorber discharge	29	% LEL	LEL =	1.2 % hexane in air
Crush/Process rate	83.33	tons/hr		

Inlet to absorber = (137 cfm)(1 lb air/15 cf)(0.54 lb hexane/0.43 lb air)(60 min/hr)
= 688 lbs/hr

Outlet from absorber = (137 cfm)*(1 lb air/5 cf)*(60 min/hr)*1.2%*29%
= 5.72 lbs/hr
= (5.72 lbs/hr)*(8,760 hrs/yr)/(2,000 lbs/ton)
= 25.1 tons/yr

Hexane emissions during normal operation = Emission rate/processing rate
= (25.1 tons/yr)*(2000 lbs/ton)/(83.33 tons/hr)
= 0.069 lb/ton crush

Efficiency of absorber = (Inlet - Outlet)/Inlet * 100%
= (688 lbs/hr - 5.72 lbs/hr) /688 lbs/hr
= 99.2 %

B. Upset Operating Conditions

Upset frequency (average)	=	5 times/yr
Upset duration (average)	=	3 hrs/occurrence
Air flow rate (maximum)	=	178 cfm
Hexane outlet conc. (max.)	=	100 % LEL

Outlet from absorber (max) = (178 cfm)*(100%)*(1.2%)*(1 lb/5 cf)*(60 min/hr)
= 25.6 lbs/hr
= (emission rate lbs/hr)*(upset hours per year)/(2,000 lbs/ton)
= (25.6 lbs/hr)*(15 hrs/yr)/(2,000 lbs/ton)
= 0.192 ton/yr

Hexane emissions - upset condition = Emission rate/processing rate
= (hexane rate)*(2,000 lbs/ton)/(process rate)
= (0.192 ton/yr)*(2,000 lbs/ton)/(730,000 tons/yr)
= 0.00053 lb/ton crush

Total absorber hexane emissions = (Normal + Upset) emissions
= (25.1 + 0.192) tons/yr
= 25.3 tons/yr

Hexane emiss. during normal and upset conditions = Emission rate/processing rate
= (hexane emission rate)*(2,000 lbs/ton)/(process rate)
= (25.3 tons/yr)*(2,000 lbs/ton)/(730,000 tons/yr)
= 0.0692 lb/ton crush

Process Waste Water

Normal operating conditions occur at all times, no upsets.

Water flow	=	10,000 lbs/hr
Hexane concentration	=	62 ppmw

Average hexane emiss. = (Water flow)*(hexane concentration ppmw)
= (10,000 lbs/hr)*(62/1,000,000)
= 0.620 lb/hr

Total hexane emission rate = (0.620 lbs/hr)*(8,760 hrs/yr) / 2,000 lbs/ton
= 2.72 tons/yr

Average hexane emiss. = emission rate/ process rate
= (2.72 tons/yr) * (2,000 lbs/ton) /(730,000 tons/yr)
= 0.0074 lb/ton

Soybean oil

Normal operating conditions occur at all times, no upsets.

Oil production capacity	20	% of crush
Process rate of oil	33333	lbs/hr
Hexane in oil	100	ppmw

Maximum hexane in oil = (Process rate)*(hexane concentration)
= (33,333 lbs/hr)*(100 ppmw)

a) Hourly = 3.33 lbs/hr

b) Yearly = (3.33 lbs/hr)*(8,760 hrs/yr) /(2,000 lbs/ton)
= 14.6 tons/yr

Hexane sold in oil = (emission rate)/(process rate of beans)
= (14.6 tons/yr) * (2000 lbs/ton) /(730,000 tons/yr)
= 0.040 lb/ton crush

A. Normal operating conditions

Flakes in beans	75	% weight
Hexane in meal to dryer	300	ppmw
Hexane in meal from dryer	150	ppmw

Maximum hexane emissions = (Process rate)*(2,000 lbs/ton)*(meal %)
*(hexane delta ppmw)
= (83.33 tons/hr)*(2,000 lbs/ton)*(75 %)*((300-150)/1,000,000)
= 18.8 lbs/hr
= (730,000 tons/yr)*(75%)*((300-150)/1,000,000)
= 82.1 tons/yr

Hexane emissions during normal operation = Emission rate/processing rate
= (82.1 tons/yr) * (2,000 lbs/ton) /(730,000 tons/yr)
= 0.225 lb/ton crush

B. Upset conditions

Hexane in meal to dryer	2000	ppmw
Hexane in meal from dryer	1000	ppmw

Post dryer hexane concentration is 2,000 ppmw x 150 ppmw /300ppmw = 1,000 ppmw

Maximum hexane emissions = (Process rate)*(2,000 lbs/ton)*(meal %)*(hexane delta ppmw)
= (83.33 tons/hr)*(2,000 lbs/ton)*(75 %)*((2,000-1,000)/1,000,000)
= 125 lbs/hr
= (hexane emissions lbs/hr)*(upset hours/year)/(2,000 lbs/ton)
= (125 lbs/hr)*(5*3 hrs/yr)/(2,000 lbs/ton)
= 0.938 ton/yr

Hexane emissions during upset conditions = Emission rate/process rate
= (0.938 ton/yr) * (2,000 lbs/ton)/(730,000 tons/yr)
= 0.00257 lb/ton crush

Total hexane emissions = Emissions during normal operation + upset condions
= (82.1 + 0.938) tons/yr
= 83.1 tons/year

Hexane emissions from meal dryers = Emission rate/process rate
= (83.1 tons/yr) * (2,000 lbs/ton)/(730,000 tons/yr)
= 0.228 lb/ton crush

A. Normal operating conditions

Flakes in beans	75	% weight
Hexane in meal to cooler	150	ppmw
Hexane in meal from cooler	95	ppmw

Maximum hexane emissions = (83.33 tons/hr)*(2,000 lbs/ton)*(75 %)*((150-95)/1,000,000)
= 6.88 lbs/hr
= (730,000 tons/yr)*(75 %)*(55 ppmw)
= 30.1 tons/yr

Hexane emissions during normal operation = Emission rate/processing rate
= (30.1 tons/yr)* (2,000 lbs/ton) /(730,000 tons/yr)
= 0.083 lb/ton crush

B. Upset conditions

Hexane in meal to cooler	1000	ppmw
Hexane in meal from cooler	633	ppmw

Post dryer hexane concentration is 1,000 ppmw x 95 ppmw/150 ppmw = 633 ppmw hexane.

Maximum hexane emissions = (Process rate)*(2,000 lbs/ton)*(meal %)*(hexane delta ppmw)
= (83.33 tons/hr)*(2,000 lbs/ton)*(75 %)*((1,000-633)/1,000,000)
= 45.8 lbs/hr

= (hexane emissions lbs/hr)*(upset hours/yr)/(2000 lbs/ton)
= (45.8 lbs/hr)*(5*3 hours/yr)/(2,000 lbs/ton)
= 0.344 ton/yr

Hexane emissions during upset conditions = Emission rate/processing rate
= (0.344 ton/yr)*(2,000 lbs/ton)/ (730,000 tons/yr crush)
= 0.00094 lb/ton crush

Total hexane emissions = Normal + Upset Emissions
= (30.1 + 0.344) tons/yr
= 30.5 tons/yr

Hexane emissions from cooler = Emission rate/processing rate
= (30.5 (tons/yr) * (2,000 lbs/ton) /(730,000 tons/yr crush)
= 0.083 lb/ton crush

A. Normal operating conditions

Flakes in beans	75	% weight
Hexane in meal	95	ppmw

Maximum hexane in meal
= (Process rate)*(2,000 lbs/ton)*(meal %)*(residual hexane ppmw)
= (83.33 tons/hr)*(2,000 lbs/ton)*(75%)*(95/1,000,000)
= 11.9 lbs/hr

= (730,000 tons/hr)*(75%)*(95/1,000,000)
= 52.0 tons/yr

Hexane in meal during normal operation
= hexane content/processing rate
= (52.0 tons/yr) * (2,000 lbs/ton) /(730,000 tons/hr)
= 0.143 lb/ton crush

B. Upset conditions

Hexane in meal to cooler 633 ppmw

Maximum hexane in meal
= (83.33 tons/hr)*(2,000 lbs/ton)*(75%)*(663/1,000,000)
= 79.2 lbs/hr

= (hexane rate)*(upset hours/yr)/(2,000 lbs/ton)
= (79.2 lbs/hr)*(5*3 hrs/yr)/ (2,000 lbs/ton)
= 0.594 ton/yr

Hexane in meal during upset conditions
= hexane content/processing rate
= (0.594 ton/yr)*(2,000 lbs/ton)/(730,000 tons/yr)
= 0.0016 lb/ton crush

Total hexane in meal
= Hexane in meal (Normal + Upset)
= (52.0 + 0.594) tons/yr
= 52.6 tons/year

Hexane in meal
= hexane content/processing rate
= (52.6 tons/yr) * (2,000 lbs/ton)/(730,000 tons/yr crush)
= 0.144 lb/ton crush

Start-up/Shutdown Conditions (Fugitive losses)

Startup solvent loss	11200	lbs	or	2,000	gals
Shutdown solvent loss	11200	lbs	or	2,000	gals
Hexane density	5.6	lb/gal			
Loss for 1 startup/shutdown	22400	lbs	or	4,000	gals
Duration of startup	2	hrs			
Duration of shutdown	2	hrs			
Duration of1 startup/shutdown	4	hrs			
Freq. of startup/shutdown	4	times/year			
Total duration	16	hrs/year			

Maximum hexane emissions = (hexane loss,1 startup/shutdown)/(duration of 1 startup/shutdown)
= (22,400 lbs)/(4 hrs)
= 5,600 lbs/hr

Total Hexane emissions = (Total hexane loss lbs/hr)*(duration hrs/yr) /2,000 lbs/ton
= (5,600 lbs/hr)*(16 hrs/yr)/(2,000 lbs/ton)
= 44.8 tons/year

Hexane emissions = Emission rate/processing rate
= (44.8 tons/yr) * (2,000 lbs/ton) /(730,000 tons/yr crush)
= 0.123 lb/ton crush

Plant Upsets

Upset conditions (Fugitive losses)

When the process system is under pressure assume hexane loss to the atmosphere is equal to the volume of air normally pulled into the system.

Duration	3	hrs
Frequency	5	times/yr
Total duration	15	hrs/yr

Flow of air in the flakes = (Process rate)(meal %)(2,000 lbs/ton)(1 hr/60 min)(cf/60 lbs)
= (83.33 tons/hr)(75 %)(2,000 lbs/ton)(1 hr/60 min)(cf/60 lbs)
= 34.72 cfm

The volume of hexane lost will be equal to the air drawn into the system during normal operations.
Hexane loss = 137 cfm - 34.72 cfm
= 102 cfm

Maximum hexane emissions = (cfm)(60 min/hr)(3 lbs/15 cf)(hr/occ)(occ/yr)(1 ton/2000 lbs)
= (102 cfm)(60min/hr)(3 lbs/15cf)(3*5hrs/yr)(1 ton/2,000 lbs)
= 9.21 tons/yr

Hexane emissions = (hexane emissions)/(process rate)
due to upsets = (9.21 tons/yr) * (2,000 lbs/ton) /(730,000 tons/yr crush)
= 0.025 lb/ton crush

General Leaks and Equipment Failures (fugitive emissions)

Various potential sources of leaks exist throughout the plant.

Annual leak average 0.175 lb/ton crush
It occurs throughout the year.
No identifiable conditions.

Average hexane emissions = (0.175 lb/ton)*(process rate)
= (0.175 lb/ton)*(83.33 tons/hr)
= 14.6 lbs/hr
= (14.6 lbs/hr)*(8,760 hrs/yr)/ (2,000 lbs/ton)
= 63.9 tons/yr

Sampling (fugitive losses)

A small amount of hexane is lost with sampling and unloading purchased hexane.

Sampling frequency 24 samples/day (during normal operation)
Sample volume 0.100 gallon
Sample content 90 % hexane

Hexane emissions = (24 samples/day)*(365 days/yr)*(0.1 gallon/sample)
(5.6 lbs/gallon)(90%)*(1 ton/2,000 lbs])
= 2.21 tons/yr

Annual total hexane emissions = (2.21 tons/year)*(2,000 lbs/ton)/(2,489,089 tons/yr)
= 0.0060 lb/ton crush

Hexane vapors remaining in delivery truck after unloading

Hexane loss = (Truck volume emptied)*(lb hexane/lb vapor)*(density of vapor)
= (solvent loss tons/yr)*(2,000 lbs/ton)*(1gal/5.6 lbs)* 1cf/7.48 gals)*
(1 lb/15cf air)*(0.54 lb hexane/ 0.43 lb air vapor) / 2,000 lbs/ton
= (329.44 tons/yr)*(2,000 lbs/ton)*(gal/5.6 lbs)*(1cf/7.48 gals)*
(1 lb/15 cf air) *(0.54 lb hexane/ 0.43 lb air vapor) / 2,000 lbs/ton
= 0.658 tons/yr

Annual total hexane emiss. = (hexane emissions)/(process rate)
= (0.658 tons/yr) * (2,000 lbs/ton)/(2,489,089 tons/yr crush)
= 0.0018 lb/ton crush

Hexane vented from storage tank

Hexane storage tank is always vented to the mineral absorption system.
Therefore, no tank venting of breathing or working losses to the atmosphere occur.

Hexane loss = 0.00 tons/yr
= 0.00 lb/ton crush

Hexane Loss Breakdown (ton/year)

Type of Disappearance	Normal (tons/yr)	Upset (tons/yr)	Normal + Upset (tons/yr)
Air Emissions-Point Sources			
Vent system (oil absorber)	25.1	0.192	25.3
Desolventized meal dryers	82.1	0.938	83.1
Desolventized meal cooler	30.1	0.344	30.5
Subtotal	137	1.47	139
Air Emissions-Fugitive			
Start-ups / shutdowns		44.8	44.8
Plant upsets		9.21	9.21
Sampling/hexane unloading	2.87		2.87
General	63.9		63.9
Subtotal	66.7	54.0	121
Products & byproducts			
Meal	52.0	0.594	52.6
Waste water	2.72		2.72
Oil	14.6		14.6
Subtotal	69.3	0.594	69.9
Total	273	56.1	329

Hexane Loss Breakdown (lb/ton)

Type of Disappearance	Normal (lb/ton)	Upset (lb/ton)	Normal + Upset (lb/ton)
Air Emissions-Point Sources			
Vent system (oil absorber)	0.069	0.0005	0.069
Desolventized meal dryers	0.225	0.003	0.228
Desolventized meal cooler	0.083	0.0009	0.083
Subtotal	0.376	0.004	0.380
Air Emissions-Fugitive			
Start-ups / shutdowns		0.123	0.123
Plant upsets		0.025	0.025
Sampling/hexane unloading	0.008		0.008
General	0.175		0.175
Subtotal	0.183	0.148	0.331
Products & byproducts			
Meal	0.143	0.002	0.144
Waste water	0.007		0.007
Oil	0.040		0.040
Subtotal	0.190	0.002	0.192
Total	0.749	0.154	0.903

Hexane (VOC) Emission Summary

Max. point source hexane emissions	=	139	tons/year
Total fugitive hexane emissions	=	121	tons/year
Total source hexane emissions	=	260	tons/year
Hexane lost with meal	=	52.6	tons/year
Hexane lost with waste water	=	2.72	tons/year
Hexane lost with oil	=	14.6	tons/year
Total Hexane inventory loss	=	329	tons/year
VOC emissions from boilers	=	0.920	ton/year
VOC emissions from tanks	=	1.20	tons/year

Indiana Department of Environmental Management
Office of Air Management

Addendum to the
Technical Support Document for New Construction and Operation

Source Name:	CSE Processing, LLC
Source Location:	Parrot Road, New Haven, Indiana 46774
County:	Allen
Construction Permit No.:	003 - 8716 - 00281
SIC Code:	2075
Permit Reviewer:	CarrieAnn Ortolani

On October 10, 1997, the Office of Air Management (OAM) had a notice published in the Fort Wayne Journal Gazette, Fort Wayne, Indiana, stating that CSE Processing, LLC had applied for a construction permit to construct and operate a soybean processing plant with fabric filters, cyclones, and a mineral oil absorber as controls. The notice also stated that OAM proposed to issue a permit for this installation 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.

Upon further review, IDEM has decided to make the following changes:

(a) In order to better define the conditions of this permit and to make the permit suitable for conversion to a Part 70 Operating Permit at a later date, the format of the permit has been changed. The Construction Conditions of the proposed permit are now Conditions B.1 through B.4. Operation Conditions 1 through 6 of the proposed permit are now Conditions B.5 through B.9. Part of Operation Conditions 7, 9, 11, 14, and 19 and all of Operation Conditions 13, 16, 17, and 20 are now in incorporated in Section C. Section C contains all conditions applicable to the entire source. These conditions are found in most Part 70 Operating Permits and are applicable to this source. The remainder of the Operation Conditions in the proposed permit are now in Section D, which deals with facility specific conditions.

(b) The New Facilities; General Reduction Requirements and New Source Air Toxics Control Condition, formerly Operation Condition 15, has been revised as Condition D.1.5. The compliance determination and compliance monitoring conditions are contained in Conditions D.1.9 and D.1.13, respectively. These conditions pertain to the best available and maximum achievable control technology. Enhanced monitoring conditions have been added to this permit, including leak detection and repair requirements. The source is required to install a mineral oil system chiller on the outlet vent of the absorber and a soybean oil dryer vented to the distillation system in addition to the mineral oil absorber. The conditions have been revised based upon further analyses of similar facilities in Indiana and across the United States to determine the best available and maximum achievable control technologies. See the table in Response 28 and Appendix B of this document for a comparison of BACT conditions.

Condition D.1.5 reads:

New Facilities; General Reduction Requirements and New Source Air Toxics Control [326 IAC 8-1-6] [326 IAC 2-1-3.4]

Pursuant to 326 IAC 8-1-6 and 326 IAC 2-1-3.4, the mineral oil absorber in conjunction with the following emission limits and control devices shall be considered the best available and maximum achievable control technology (BACT and MACT) for the soybean processing plant. The BACT and MACT Conditions are as follows:

(a) The VOC limits shall be based on a 12-month rolling average and are as follows:

Facility	Control	VOC (Hexane) Emission and Usage Limits
Oil extractor system	mineral oil absorber	0.069 lb/ton
Meal dryer	none	0.228 lb/ton
Meal cooler	none	0.083 lb/ton
Overall usage for the first year	--	0.24 gallon/ton
Overall usage after the first year	--	0.1612 gallon/ton

(b) The amount of soybeans processed shall not exceed 730,000 tons per year, based on a 12-month rolling total. This limit on the amount of soybeans processed in conjunction with the VOC limits will make the requirements of 326 IAC 2-2, PSD not applicable based on PM and VOC emissions as indicated in C.1.

(c) The Permittee shall install a refrigerated condenser on the main outlet vent of the mineral oil absorber.

(d) The Permittee shall install a soybean oil dryer in the oil distillation system to reduce residual solvent content in the oil produced.

(e) The Best Available Control Technology (BACT) and Maximum Achievable Control Technology (MACT) for the hexane loss includes an enhanced inspection, maintenance and repair program as outlined in Condition D.1.13.

(f) This soybean processing plant shall also minimize VOC (hexane) losses to the atmosphere by training operators and supervisors of the plant.

Condition D.1.9 reads:

Pursuant to 326 IAC 8-1-6 and 326 IAC 2-1-3.4, the mineral oil absorber, refrigerated condenser and soybean oil dryer for VOC control shall be in operation at all times when the soybean processing plant is in operation.

Condition D.1.13 reads:

(a) The mineral oil absorption vent VOC (hexane) emission rate shall be determined daily by measuring the airflow rate and the concentration of the hexane in the air stream. This concentration will be determined by measuring the percent lower explosive limit (LEL). The percent LEL shall be maintained within a range established by the latest compliance stack test. Airflow can be determined by a gas analyzer or by a hand held unit, and/or calculations when the gas analyzer proves unreliable.

(b) The hexane emission rate from the dryer cyclones and cooler cyclone shall be determined by laboratory test if the lower meal temperature of the desolventizer is below 215°F. If the meal temperature of the desolventizer is above 215°F, the hexane emission rate will be based on the compliance test results. When the process is in operation, an electronic data management system (EDMS) shall record the instantaneous temperature on a frequency of not less than once per hour. As an alternate to installing an EDMS, manual readings shall be taken not less than once per hour.

(c) The mineral oil temperature to the absorber shall be kept below 70°F or no less than 5°F higher than the ambient wet bulb temperature when the ambient wet bulb temperature is greater than 75°F. When the process is in operation, an electronic data management system (EDMS) shall record the instantaneous temperature on a frequency of not less than once per hour. As an alternate to installing an EDMS, manual readings shall be taken not less than once per hour.

(d) The mineral oil to the mineral oil stripping column shall be kept at a minimum of 180°F for adequate stripping of the absorbed hexane from the oil. When the process is in operation, an electronic data management system (EDMS) shall record the instantaneous temperature on a frequency of not less than once per hour. As an alternate to installing an EDMS, manual readings shall be taken not less than once per hour.

(e) The flow rate of the mineral oil absorber shall be monitored and recorded at least once every calendar day when in operation. The flow rate shall be maintained within a range determined by the latest compliance stack test.

(f) The Best Available Control Technology (BACT) and Maximum Achievable Control Technology (MACT) for the hexane loss includes an enhanced inspection, maintenance and repair program. Within 60 days of achieving full production, but in no case later than 180 days after initial startup, the Permittee shall institute the following enhanced inspection, maintenance, and repair program for the solvent extraction portion of the installation. This requirement applies only to equipment components containing or contacting a process stream with a VOC concentration of ten percent (10%) by weight or more. This requirement does not apply to equipment components operating under negative pressure or to heavy liquid service. Heavy liquid service refers to liquids in which less than ten percent (10%) evaporates at 300°F.

(1) For pumps, the following inspection and repair requirements shall apply:

(A) For the first year:

(i) Weekly visual check for leakage; and

(ii) semi-annual organic vapor analyzer inspection (leak definition = 500 ppm above background concentrations).

(B) After the first year:

(i) Weekly visual check for leakage; and

(ii) annual organic vapor analyzer inspection (leak definition = 500 ppm above background concentrations).

(iii) When a unit has a leak detected during an annual organic vapor analyzer inspection, the frequency of organic vapor analyzer inspections shall become semi-annual (leak definition = 500 ppm above background concentrations).

(iv) When that unit has no leak detected for two (2) consecutive semi-annual vapor analyzer inspections, the frequency of inspections shall return to annual.

(2) For valves, the following inspection and repair requirements shall apply:

(A) For the first year:

semi-annual organic vapor analyzer inspection (leak definition = 500 ppm above background concentrations).

(B) After the first year:

(i) annual organic vapor analyzer inspection (leak definition = 500 ppm above background concentrations).

(ii) When a unit has a leak detected during an annual organic vapor analyzer inspection, the frequency of organic vapor analyzer inspections shall become semi-annual (leak definition = 500 ppm above background concentrations).

(iii) When that unit has no leak detected for two (2) consecutive semi-annual vapor analyzer inspections, the frequency of inspections shall return to annual.

(3) For pressure relief devices, the following inspection and repair requirements shall apply:

(A) No later than five (5) calendar days after a pressure release, the

pressure release device shall be monitored to confirm conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background concentrations.

(B) Any pressure relief device that is equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device is exempt from D.1.13 (f)(3).

(4) For connectors, flanges, and seals other than those covered in D.1.13(f) (1), (2), and (3), the following inspection and repair requirements shall apply:

Annual organic vapor analyzer inspections (leak definition = 10,000 ppm above background concentrations).

(5) The Permittee shall determine compliance with the standards in D.1.13(f) (1) through (4) above by using the procedures of 40 CFR Part 60, Appendix A, Method 21. The instrument shall be calibrated before each use by the procedures as specified in Method 21.

(6) (A) The Permittee shall tag all leaking components within 24 hours of leak detection with a weatherproof and readily visible alpha-numeric identification tag.

(B) Once a leaking component is detected, first-attempt repairs must be done within five (5) days and be completed within 15 days of detecting the leak components.

(C) If the leak repair is scheduled to occur during a day when the daily average ambient air temperature is below 40°F, the leak repair may be delayed until a day when the daily average ambient air temperature is above 40°F so that the plant may shut down for repairs.

(7) (A) The Permittee shall maintain records of the following to verify compliance with the enhanced inspection:

(i) the results of instrument calibration checks,

(ii) equipment inspected,

(iii) date of inspection, and

(iv) determination of whether a leak was detected.

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

(i) equipment, operator, and instrument identification number;

(ii) measured concentration (ppm) and background (ppm);

(iii) leak identification number associated with the corresponding alpha-numeric tag;

(iv) date of repair;

(v) reason for non-repair if unable to repair within 5 to 15 days of detection;

(vi) maintenance recheck if repaired (date, concentration, background); and

(vii) any appropriate comments.

(8) The Permittee may request an amendment to this condition for any provisions that conflict with the requirements of the NESHAP for vegetable oil production after the publication date of the final NESHAP. However, compliance with the standard shall be governed by the timetable as stated in the Clean Air Act, Section 112(i)(6) or Section 112 (i)(7), whichever is applicable.

(g) The vent gases from the hexane storage tanks shall be directed to the absorber system.

(c) Operation Condition 7 (now Condition D.1.7) has been revised to state which stacks must undergo stack tests. The condition now reads:

D.1.7 Testing Requirements [326 IAC 2-1-3]

(a) During the period between 60 and 180 days after achieving the maximum production rate, the Permittee shall perform PM testing at:

(1) the operations exhausting to S1a, S1b, and S2 using methods specified in 40 CFR 60.303, Subpart DD (Standards of Performance for Grain Elevators; Test methods and procedures) to determine compliance with D.1.1, D.1.2, and D.1.4;

(2) stacks S3, S5, and S6, and at least one (1) of the following four (4) stacks; S7, S8, S10a, and S10b to determine compliance with D.1.4.

(b) During the period between 60 and 180 days after achieving the maximum production rate, the Permittee shall perform VOC testing at stacks S5, S6, and S12 to determine compliance with D.1.5.

(c) These tests shall be performed pursuant to 326 IAC 3-2.1 (Source Sampling Procedures), as stated in C.9, utilizing methods approved by the Commissioner.

(d) Condition D.1.1, Opacity Limitations pursuant to 40 CFR 60.302, Subpart DD has been revised to include visible emissions from process operations as well as fugitive emissions. Condition D.1.1 now states:

Pursuant to New Source Performance Standards (NSPS), Part 60.302, Subpart DD, on or after the 60th day of achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup, the visible emissions from:

(a) the grain elevator shall not exceed 0 percent opacity for fugitive and process emissions.

(b) the truck scale receiving system shall not exceed fugitive visible emissions of 5 percent opacity and process visible emissions of 0 percent opacity.

(c) the day bin and shift surge bin for whole bean storage shall not exceed 0 percent opacity for fugitive and process emissions.

(d) the soybean cleaning operations shall not exceed 0 percent opacity for fugitive and process emissions.

(e) Condition D.1.8 summarizes all control equipment required for compliance with the PM and PM_{10} emission limitations [326 IAC 6-3-2] [40 CFR 60.302, Subpart DD]. Condition D.1.8 states:

(a) The baghouses and cyclones for PM control shall be in operation at all times when the corresponding equipment is in operation.

(b) The level indicators shall be installed at the cones of the meal dryer and meal cooler cyclones.

(c) The discharge portions of the grain dryer shall be equipped with a column plate, with perforations not greater than 0.094 inches in diameter.

(d) the source shall comply with the following:

(1) good housekeeping and equipment maintenance procedures shall be implemented.

(2) emissions shall be minimized in receiving, handling, and shipping operations by appropriate methods. These may include but need not be limited to, dust collection systems, windscreens, baffles, restricted hopper openings, enclosed transfer points, flexible drop spouts and/or sleeves.

(f) The baghouse inspections are no longer required as the visible emission notations, parametric monitoring and broken bag and failure detection requirements will fulfill the monitoring requirements for particulate matter (PM) at this source.

On December 22, 1997, the Office of Air Management (OAM) had a notice published in the Fort Wayne Journal Gazette in Fort Wayne, Indiana, stating that the Office of Air Management (OAM) proposes

to issue a construction and operation permit to CSE Processing, LLC, located at Parrot Road, New Haven, Indiana. Said permit will contain limits or conditions that are necessary to meet the ambient air quality standards.

The notice also stated that a public hearing was to be held on January 8, 1998, from 7 to 9 PM at the New Haven Adams Township Park, 1125 Hartzell Street, New Haven, Indiana 46774. Finally, there was a period of fifteen (15) days following the hearing in which the public was invited to comment in writing on this matter.

Following the public hearing, comments were received from Ms. Joyce Hetrick and Ms. Gail Matthews. All comments pertaining to environmental issues, made orally or written, have been summarized and addressed in the following paragraphs.

On January 22, 1998, Joyce Hetrick of 206 Hartzell Road, New Haven, Indiana submitted the following letter:

COMMENT 1:

I have taken a lot of thought about the soybean oil processing plant on Hartzell Road. There are several factors I am greatly stressed concerning the proposed plant. They are as follows:

1. The property where they intend to put the soybean plant is much closer than ½ mile from our residence. The amount of land that they have is not sufficient.

2. Health risk factor of Hexane in the environment with lung and respiratory disease. Clean air should not be sacrificed for residence of New Haven. The soybean plant should be placed in another area where they have plenty of land to do their processing.

3. Flood plains are near and even though, flood waters carry down the Maumee to sources of water we drink. With a soybean processing plant Hexane will come into the environment and it can't be stopped.

4. The New Haven area population and residence were already established many years ago and it is too close to heavy populated areas without room for their proper expansion.

5. Central States have in the past moved dirt which is changing the flood pattern and causing problems for other area residences. Too high lands, then cause others to have flooding which wouldn't normally be there if they hadn't altered the natural land.

Please, I am requesting that Central States not be allowed to place their soybean plant there. It is too great a health risk for New Haven.

RESPONSE 1:

Regardless of where on the property the soybean processing plant is located, the same state air pollution control requirements apply. IDEM reviews the application and determines if the source can show compliance with the applicable rules. The application provided by CSE Processing, LLC was sufficient for these purposes. If the source can comply with the rules, a permit is proposed.

In addition to the minimum legal requirements, IDEM has performed air pollution modeling to determine the plant's impact on air quality. The model takes into account all meteorological conditions, the stack parameters, and the building dimensions to predict the increase in the pollution concentration at all distances beyond the property line. The U.S. EPA has developed national ambient air quality standards (NAAQS) for pollutants. For this source, PM_{10} was modeled at 91.2 tons per year (potential emissions from process operations) and 249 tons per year (maximum allowable emissions if PM_{10} is equivalent to PM emissions) to determine maximum impacts. The maximum predicted increases are added to representative background concentrations in units of micrograms per cubic meter (ug/m^3) taken from the PM_{10} monitor located at 2022 North Beacon in Fort Wayne. The total is compared to the PM_{10} 24 hour and annual NAAQS at a level to protect public health and welfare with a margin of safety. The results are as follows:

For PM_{10} modeled at an emission rate of 91.2 tons per year.

	maximum concentration	**background concentration**	**total**	**NAAQS**
24 hour (ug/m^3)	26.7	44.7	71.2	150.0
Annual (ug/m^3)	5.3	24.0	29.3	50.0

For PM_{10} modeled at an emission rate of 249 tons per year. The source is limited at 226 tons per year.

	maximum concentration	**background concentration**	**total**	**NAAQS**
24 hour (ug/m^3)	72.8	44.7	117.5	150.0
Annual (ug/m^3)	14.5	24.0	38.5	50.0

There are no national ambient air quality standards for hexane. The Occupational Safety and Health Administration (OSHA) developed their own standards for various air pollutants. The modeled concentration of hexane was compared to these standards. The OSHA Permissible Exposure Limit (PEL) for hexane is 1,800,000 ug/m^3 for an eight hour concentration. The hexane emissions were modeled at a rate of 329 tons per year, which includes all hexane losses from the plant that leaves the plant in the waste water, soybean meal, and leaks. Results showed that the eight hour maximum concentration was 2,854 ug/m^3, which compared to the OSHA PEL is 0.16% of the PEL. See pages 4 through 14 of TSD Addendum Appendix A for updated hexane emission calculations.

Based on these results, this soybean processing plant will not cause a threat to the health and safety of those residing in the vicinity of the plant. Based on the conclusions of the modeling and based on the applicants ability to show compliance with the applicable rules, IDEM is required to issue this permit.

With respect to water quality, there is no direct discharge into the Maumee River or any stream or body of water that requires a water discharge permit. The company is covered by the provisions of the general permit rules for storm water runoff by the Office of Water Management. The general permit for water discharge is not issued to individual companies. If the company meets the requirement of 327 IA 15-6 (attached), then the company is covered by the general permit. CSE Processing, LLC believes that it meets the applicability requirements. Therefore, the company is

covered by the general permit.

The land on which the soybean processing plant is proposed is designated I-3, heavy industry. Zoning is under the jurisdiction of the local zoning board. IDEM has no authority with respect to zoning.

On January 19, 1998, Gail Matthews of 1130 Powers Street, New Haven, Indiana submitted the following letter:

COMMENT 2:

I am writing this letter to make additional comments on the subject listed above. I understand there is another 15 day comment period which I would like to exercise. This letter is to comment on air quality issues related to the operation of this plant and the quality of life the operation will have on my family and others in New Haven. I had the opportunity to attend the Public Hearing held on January 8, 1998, and I'm glad I attended as I'm not the only one who seems to feel this permit should not be granted. Several individuals did their homework and I learned much that evening.

Please refer to my October 20, 1997, correspondence in which I outlined several concerns regarding the new plant. I commented on air quality issues as well as other issues not under your department's authority. Attached is a copy of my letter for your convenience.

Contrary to statements made by Central States to you in a letter dated November 5, I'm not being less than honest for whom I work. I work for Central Soya Company, Inc., but this issue is not about for whom I work, but where I live and what will happen to the quality of air and life in my community. Quite frankly, Central Soya does not pay me to worry about the competition.

As stated in my letter dated October 20, I have a daughter with allergies and I know how miserable she gets during hay fever season. I would hate to see increased dust and other air pollutants 502 S. Greene Street, Cambridge City, Indiana 46327-0240 to her misery year-round. Unless you or your children have allergies, I guess you can only take my word for it. I also have a son who previously had lung problems and had to use a breathing apparatus for several months. He is well enough now to not need medication and the equipment. I would hate to see a regeneration of his condition because of dust and other air pollutants. I highly doubt that Central States will be willing to pick up the extra medical expenses my family incurs because of the increased dust and air pollution in the area that could contribute to their health problems.

Another concern I have is the hexane emissions. I know it is rare, but it does happen and the consequences can be severe. My company had an unfortunate accident in Indianapolis several years ago and we have facilities at Decatur, IN, and Delphos, OH. I chose to live in New Haven and work at Central Soya corporate headquarters with no hexane threats. Both locations are away from such hazards. I do not relish the thought of that in "my back yard" so to speak. Even though I have knowledge of soybean processing operations, I didn't know how dangerous hexane could actually be.

After hearing other people in the community who have no "inside" knowledge of grain processing operations, I did not realize what problems and mess they were already facing with the current operation. There seems to be a real concern about the unwritten "good neighbor" policy. From the public hearing, it sounds from the residents that live nearby that Central States does nothing now to help them. Is Central States going to be willing to help clean up the mess soybean processing leaves behind? Is Central States going to be prepared for any situation involving a hexane accident? There are several parks nearby and I don't want my tax money going to constantly clean up someone else's mess.

As stated at the Public Hearing, it could have been that our local zoning board may have made an error as to the type of industry allowed to operate in the area. At one time, maybe the zoning was correct, but perhaps not now. The downtown area, community parks, and several residential neighborhoods, including mine, seem to be too close. Perhaps a more favorable location away from the community in a rural setting would be more in line with this type of operation. I realize zoning is not under your jurisdiction.

I thank you for your time and consideration and I hope that you will come to the conclusion that the residents of New Haven do not wish this operation to locate here. I cannot and do not generalize that opinion, but it seemed to be the consensus of those who spoke out at the hearing.

RESPONSE 2:

One of the purposes of the Clean Air Act is to set NAAQS for protecting public health, including the health of people particularly sensitive to air pollution such as young children, the elderly, and those with asthma or bronchitis. The US EPA has designated Allen County as an attainment area for all of the criteria pollutants. That means that air quality currently does not exceed the levels set by the NAAQS for particulate matter, sulfur dioxide, ozone, carbon monoxide, and lead.

OAM conducts a review generally for any significant air emission source, trying to relate the air emissions coming out of the stacks or another place at the plant to what the air quality is around the plant. The purpose is to determine if the introduction of that amount of pollutants is going to cause a concentration in the air of any of these pollutants above health-related standards. This type of review was conducted for this facility. The results indicated that the concentrations of the pollutants were below the NAAQS. The results are as indicated in Response 1.

Since this plant will not cause or contribute to a violation of the NAAQS and cannot exceed the NAAQS under this permit, and since the source will comply with all applicable regulations, there is no reason to believe that the particulate matter will pose a health threat. The hexane emissions are also limited. Since the hexane emissions to the air are only a small fraction (0.16%) of the OSHA PEL (see Response 1), there is no reason to believe that hexane will pose a threat to health or safety. These results indicate that there is no reason from the standpoint of air pollution control permitting to prevent CSE Processing, LLC from constructing a soybean processing plant at this location. The matter of zoning is not within the jurisdiction of the OAM.

The following comments were submitted during the public hearing on January 8, 1998.

COMMENT 3:

Joyce Hetrick, Diane Wolf, Henry Graves, and Alison Adams voiced concern about the plants proximity to local residences. They feel that the application was not specific in defining the location of the plant. They want to know if similar plants are located close to a community. Mr. Graves indicates that the industry has been moving towards building on a 100 or 200 acre parcel of land where there is more of a buffer zone.

RESPONSE 3:

There was a plot plan included in the application package that indicated the precise location of the plant. This plot plan was updated during further communication with the applicant to include the location of the property line in all directions. John Stanford indicates that the closest residence is one half mile from the exact proposed location. He indicates that the plant will be at least 50 feet from the railroad tracks. The plot plan is available to the public.

Please see Response 1. Response 1 details why this source is not considered a threat to local residences from the standpoint of air pollution control permitting.

COMMENT 4:

Ms. Taylor-Coar, Diane Wolf, and Ms. Poff, Ms. Adams and Mr. Graves voiced concern about the zoning of the area. They want to know why the Allen County commissioners don't have a say in this and why the people do not get to vote on this. Perhaps the area was zoned incorrectly. There was once a communication tower that was zoned correctly but was in an inappropriate place. The tower was moved. The zoning may be old and not appropriate to today's lifestyles. The plant will be close to local parks where children play sports. There is also a landfill in the area.

RESPONSE 4:

There are a number of different agencies that regulate any company. IDEM and the OAM focus on air pollution control rules that apply across the state. Zoning is regulated by the local zoning board. The land is already zoned I-3 for heavy industry, so the source did not have to get a new approval for a different use. Concerns about zoning should be directed to the local zoning board.

As far as air permitting, if a company satisfies the air permit requirements, they have to be issued a permit. The public has the right to comment on the proposed permit and to review the IDEM's determination that the permit adequately requires the applicant to comply with state and federal rules. As indicated in Response 1 and Response 2, CSE Processing, LLC is able to demonstrate compliance with all applicable rules. In addition, the air modeling results show that the emissions are well below the NAAQS and OSHA PEL. From the position of the OAM, there is no basis for denying a permit to CSE Processing, LLC for operating at this location.

COMMENT 5:

David Smith and Ms. Adams are concerned about whether the new plant is actually a modification to the existing Central States facility adjacent to the plant. They feel that CSE should not use having a extra facility to as a loophole to emit more pollution.

RESPONSE 5:

Whether or not these plants constitute a single source is a complicated legal decision. At the current time, a Construction Permit is proposed for the soybean processing plant. The same requirements and limits apply to this source as a minor source or a minor modification to an existing minor source. IDEM is reviewing the issue of whether this plant and the Central States Enterprises, Inc. grain elevator on the adjacent property should be considered a single source. As stated in 326 IAC 1-2-73, the definition of a source for state construction and operating permits is "an aggregation of one (1) or more facilities which are located on one (1) piece of property or on contiguous or adjacent properties, and which are owned or operated by the same person (or by persons under common control)." The issue of common ownership or control will not be determined until several ownership and contractual agreements have been finalized. Whether this soybean processing plant will be permitted as a minor source or a minor modification to an existing minor source, the construction permit conditions will not change. This soybean processing plant is required to obtain a Part 70 Operating Permit. If the grain elevator and soybean processing plant are determined to be a single source, they will need to be included in the Part 70 Operating Permit as a single source. Until that time, the Central States Enterprises, Inc. grain elevator shall comply with the existing Federally Enforceable State Operating Permit (FESOP) (F003-5113-00019).

COMMENT 6:

Ms. Hetrick, Mr. Norman Bade, and Mr. Matt Klotz are concerned about the track record of Central States. There is corn chaff in the air causing respiratory problems and dust collects on cars. The chaff gets on the roofs and gets wet and deteriorates. There is also noise from the plant. They also want to know if there will be an odor from the plant.

Ms. Adams says that there is an odor at the Central Soya, Decatur plant. Mr. John Woodward, resident of Decatur says that the odor is probably from another source, particularly the Seyfert potato chip plant.

Maurice Bell, equipment supplier to CSE Processing, LLC, indicates that 99.9 percent of the time there will be no noticeable odor or dust.

RESPONSE 6:

There are no notices of violation or enforcement actions pending regarding Central States Enterprises. There is a fugitive dust condition, Condition C.5, in the proposed CSE Processing, LLC permit indicating that dust shall not be observed crossing the property line in a way that violates 326 IAC 6-4. That rule indicates that the source shall be in violation of the rule if:

(a) a source or combination of sources which cause to exist fugitive dust concentrations greater than sixty-seven percent (67%) in excess of ambient upwind concentrations;

(b) the fugitive dust is comprised of fifty percent (50%) or more respirable dust, and the percent increase in fugitive dust concentrations exceed the allowable percent increase, where Allowable percentage increase in dust concentration above background = (1.5 + fraction of dust that is respirable dust) x a value no greater than sixty-seven percent (67%);

(c) the ground level ambient air concentrations exceed fifty (5) micrograms per cubic meter above background concentrations for a sixty (60) minute period; or

(d) fugitive dust is visible crossing the boundary or property line of a source. This subdivision may be refuted by factual data expressed in subdivisions (a), (b), or (c).

The facilities subject to the NSPS, 40 CFR 60.302, Subpart DD must have opacities resulting from process observations of zero percent (0%) and opacities resulting from fugitive emissions of no more than zero percent (0%) except for truck receiving which may have a fugitive opacity of no more than five percent (5%). The opacity limitation for those facilities are outlined in Condition D.1.1. All other process operations must comply with visible emission limitations, 326 IAC 5-1, as outlined in Condition C.2.

COMMENT 7:

Ms. Hetrick, Sandy Donley, and Mr. Graves are concerned about hexane emissions. They are interested in the health problems caused by exposure to hexane. They are also concerned with safety and fire hazards. Since hexane is not soluble in water, does the fire department have a dry solvent that will contain a fire spurred by hexane? The Central Soya explosion in Indianapolis was felt for a three block radius. Hexane is very flammable and it takes a lot of knowledge to handle hexane.

Ms. Wolf is concerned about the meaning of best available and maximum achievable control technologies.

RESPONSE 7:

The OAM's review of this air permit addresses the emissions of hexane. Because hexane is a VOC, it is regulated by state and federal rules due to its contribution to the formation of ozone. Hexane is also considered a hazardous air pollutant, and it can be explosive.

The rules controlling the hexane emissions include 326 IAC 2-1-3.4 and 326 IAC 8-1-6. These rules require the source to install the maximum achievable and best available control technologies, respectively. The mineral oil absorber, along with the refrigerated condenser, soybean oil dryer and the emission limitations included in Condition D.1.5, fulfill both of these requirements. The BACT and MACT requirements are contained in Conditions D.1.5, D.1.9 and D.1.13. To ensure that the hexane emissions do not exceed the levels specified above the source is limited to hexane usage of 0.24 gallons per ton of soybeans produced during the first year and 0.1612 gallons per ton of soybeans produced, thereafter. The soybean production will be limited to 730,000 tons of soybeans per year. Compliance monitoring will be done to check that the mineral oil absorption system works properly at all times. CSE Processing, LLC will also have to train operators to handle hexane correctly. In addition, leak detection analyses will take place to limit the fugitive emissions from leaking parts. A comparison table has been prepared to illustrate that these requirements are consistent with and even stronger than requirements for similar plants. See Response 22 for a technical analysis of control technologies, Response 28 for a comparison of BACT limits, and Appendix B for a comparison of BACT requirements for soybean processing plants recently permitted in Indiana. The BACT cost analysis of the mineral oil absorber is attached as Appendix C of this document.

The result of these requirements is two fold: limiting VOC (hexane) emissions to the atmosphere and limiting the possibility of safety hazards.

Based on the results of the hexane emission modeling and the consistency of the requirements of this plant in comparison with similar plants, there is reason to believe that the plant will be in compliance with all applicable rules and will not pose a safety or health hazard. See Response 1 for hexane modeling results and the impact on air quality.

COMMENT 8:

Ms. Taylor-Coar is concerned that it seems as if CSE already has permission to construct and operate.

RESPONSE 8:

CSE Processing, LLC does not have permission to go ahead with the project during the initial public comment period, public comment period, and subsequent public comment period. IDEM proposed a permit based upon the applicable rules. The permit has since been revised. The public has the opportunity to voice concerns and IDEM has the authority to revise a permit up or to look for places to better address concerns in any permit issued.

COMMENT 9:

Ms. Hetrick wants to know if the capacity of the plant is 60,000 bushels of soybeans per day.

Mr. Stanford indicates that they are a 2,000 tons per day plant.

RESPONSE 9:

CSE Processing, LLC is limited to a process weight rate of 730,000 tons of soybeans per year. That total is equivalent to 2,000 tons per day for 365 days each year. There is roughly 60 pounds in a bushel of soybeans.

COMMENT 10:

Ms. Wolf is concerned about how the dust can be gauged.

RESPONSE 10:

CSE Processing, LLC has limited particulate matter emissions. The rules applicable to particulate matter emissions and dust at this source are 326 IAC 5-1, 326 IAC 6-4, 326 IAC 6-2, 326 IAC 6-3, and New Source Performance Standard (NSPS) 40 CFR 60.302, Subpart DD for grain handling.

The source will show compliance with these rules by installing and operating cyclones and fabric filters, taking opacity observations, taking visible emission notations, monitoring baghouses, and testing certain stacks with PM emissions. There is also a schedule generated of when the inspector will show up at the source. Inspector visits are unannounced. There will be enforcement actions if CSE Processing, LLC is found in violation of the permit.

Compliance Determination conditions dealing with particulate matter (PM) emissions are Conditions D.1.7 and D.1.8. Compliance Monitoring conditions dealing with PM emissions are Conditions D.1.10, D.1.11, and D.1.12.

COMMENT 11:

Mr. Smith of Central Soya feels that the CSE Processing, LLC permit is different from other permits for similar facilities.

RESPONSE 11:

The wording and specific requirements of the final permit has been revised to be more consistent with the other permits for similar facilities. The basic requirements of the proposed permit is similar to those recently issued. This permit will be different in that 326 IAC 2-1-3.4, New Source Air Toxics Control is applicable to this facility which had a permit not yet issued on July 27, 1997 and is constructing after that date. Enhanced leak inspection, as well as the installation of a mineral oil system chiller and a soybean oil dryer, is also required in this permit. A comparison of BACT limits is found in Response 28. A table comparing the BACT requirements of this source with other sources recently permitted in Indiana is attached as Appendix B.

COMMENT 12:

Mr. Smith is concerned about the answers to his comments submitted on November 4, 1997 regarding tanks and the efficiency of pollution control equipment.

RESPONSE 12:

CSE Processing, LLC has provided information on additional tanks. The efficiency of the pollution control equipment has also been re-evaluated. See Responses 21 through 32.

COMMENT 13:

Ms. Poff is concerned that although she received information in the mail about the public hearing, others did not. She wants everyone in the neighborhood to know about the plant.

RESPONSE 13:

IDEM is trying to be more efficient in notifying the public of what is happening in the neighborhood as far as air permitting is concerned. The normal way to do this is to publish a notice in the legal advertisements of the local newspaper in this county.

All those who sent comments about this source received letters about the public hearing although IDEM is not required by law to send letters to each person. Anyone who filled out an appearance slip at the public hearing will receive a notice anytime IDEM publishes something in the legal advertisements of this county.

COMMENT 14:

Ms. Poff and Terry Smith want to know how CSE will reassure them that they will not get sick from

the plant. They want to know what will happen if people do start getting sick or there are air problems.

RESPONSE 14:

The EPA has conducted studies to determine what levels of pollution is safe. The EPA and the state set standards to ensure that pollution remains below those levels. Since this plant will not exceed emissions that are determined to be safe, there should be no sickness as a result of the plant. See Responses 1 and 2.

The applicant has demonstrated that the source will comply with all applicable rules. There is no reason to believe that this plant is a threat to public health so long as the source complies with the rules. IDEM is not set up to do medical studies. IDEM has shown that the source will not emit concentrations of pollutants that will constitute a threat to public health.

If people do get sick, the county health department and the state health department would be the ones to investigate. IDEM would make sure that the source did comply with the rules. If the source does not comply with the rules there will be enforcement actions taken.

COMMENT 15:

Ms. Poff wants to know how often the plant will be tested.

RESPONSE 15:

There will be a number of start-up compliance tests that have to be done within the first six (6) months of operating. Those will be actual tests where people do a sampling of emissions to determine if the source is in compliance with the rules. After that, compliance monitoring will ensure that the source is in compliance. Leak detection will be done as indicated in Condition D.1.13.

COMMENT 16:

Ms. Adams is concerned about the net affect of the new facility on the Central States grain elevator. Will the amount of corn handled decrease proportionally to the increased amount of soybeans handled? She wants to know what the effect will be on rail and truck traffic.

Mr. Stanford indicates that the corn acreage will become soybean acreage. The traffic should remain stable.

RESPONSE 16:

The Central States grain elevator shall continue to comply with all applicable rules as outlined in the existing FESOP (F003-5113-00019).

On November 25, 1997, Robert L. Henricks, P.E. of GAI Consultants, Inc., on behalf of CSE Processing, LLC, submitted comments on the proposed construction permit. The comments and corresponding responses are as follows:

COMMENT 17:

The following address minor wording changes after evaluation of the subject document.

The items pertain to the referenced paragraphs of both the draft permit, pages 2 and 3, and the TSD, pages 2, 3, and 4:

(a) Since the bean heater (item h) will probably only utilize one (1) cyclone, change “cyclones” to cyclone(s). There will be no decrease in cyclone efficiency.

(b) Since the total capacity of the three (3) jet dryers (item i) is 100 tons/hour, change the individual capacity of each to 33.33 tons/hour. Also, since the jet dryers may utilize one (1) cyclone, change “cyclones” to cyclone(s). There will be no decrease in cyclone efficiency.

(c) Since the total capacity of the three (3) hulloosenators (item j) is 100 tons/hour, change the individual capacity of each to 33.33 tons/hour. Also, since these units may utilize one (1) cyclone, change “cyclones” to cyclone(s). There will be no decrease in cyclone efficiency.

(d) Since the total capacity of the three (3) aspirators (item k) is 100 tons/hour, change the individual capacity of each to 33.33 tons/hour. Also, since these units may utilize one (1) cyclone, change “cyclones” to cyclone(s). There will be no decrease in cyclone efficiency.

(e) Since the total capacity of the three (3) crackers (cracking roll stands) (item l) is 100 tons/ hour, change the individual capacity of each to 33.33 tons/hour. Also, since these units may utilize one (1) cyclone, change “cyclones” to cyclone(s). There will be no decrease in cyclone efficiency.

(f) Since the total capacity of the three (3) conditioners (CCCs) (item m) is 100 tons/hour, change the individual capacity of each to 33.33 tons/hour. Also, since these units may utilize one (1) cyclone, change “cyclones” to cyclone(s). There will be no decrease in cyclone efficiency.

(g) Since the hulls screener (item n) will probably only utilize one (1) cyclone, change “cyclones” to cyclone(s). There will be no decrease in cyclone efficiency.

(h) Since the secondary dehulling aspirator (item o) will probably only utilize one (1) cyclone, change “cyclones” to cyclone(s). There will be no decrease in cyclone efficiency.

(i) Since the two (2) hull grinders (item v) are indicated as utilizing both a cyclone and a fabric filter, insert the words “cyclone and” before the words “fabric filter”.

(j) (Item dd) 502 S. Greene Street, Cambridge City, Indiana 46327-0240 the clause “vented to the distillation system” after the word “tank”.

(k) (Item ee) 502 S. Greene Street, Cambridge City, Indiana 46327-0240 after the word “extractor” the following: “, distillation system,” and clarify that the throughput is “of the extractor” by inserting the same.

RESPONSE 17:

The changes to the equipment list (A.2) have been made. Also, as indicated in the new calculations and forms submitted, the maximum capacity of the scalperator is 100 tons of soybeans per hour and the maximum capacities of the meal dryers and meal cooler are 80 tons per hour, each. The control efficiency of the hot dehulling operations has been changed to 95 percent. The calculations have been revised to reflect the changes. A revised set of calculations are attached as pages 1 through 14 of 14 of TSD Addendum Appendix A.

COMMENT 18:

NEW for both the source list and TSD:

(a) One (1) hexane/miscella work tank vented to the distillation system, capacity 10,800 gallons.

(b) Three (3) fixed roof soybean oil tanks with a maximum capacity of 158,000 gallons each.

(c) (Item hh) Three (3) fixed roof soybean oil day tanks with a maximum capacity of 29,000 gallons each.

RESPONSE 18:

This equipment has been added to the equipment list (A.2). The resultant emissions of 1.22 tons of VOC per year has been added to the potential emissions and included in the computation of the VOC limit. These tanks are subject to the 40 CFR 60.116b, Subpart Kb, and have been added to Operation Condition 18 (now Condition D.1.15(a)). The rationale behind the tanks being subject to this NSPS is as follows:

(a) The hexane storage tank and hexane /miscella work tank each have a capacity greater than 40 cubic meters and less than 75 cubic meters. The tanks, therefore, will be subject only to 326 IAC 12, (40 CFR Part 60.116b, Subpart Kb). This rule requires that the owner or operator keep readily accessible records showing the dimensions of the storage vessels and an analysis showing the capacities of the storage vessels.

(b) The three (3) fixed roof soybean oil tanks each have a capacity greater than 151 cubic meters and a vapor pressure less than 3.5 kiloPascals. The tanks, therefore, will be subject only to 326 IAC 12, (40 CFR Part 60.116b, Subpart Kb). This rule requires that the owner or operator keep readily accessible records showing the dimensions of the storage vessels and an analysis showing the capacities of the storage vessels.

(a) The three (3) fixed roof soybean oil day tanks each have a capacity greater than 75 cubic meters and less than 151 cubic meters, with a vapor pressure less than 15.0 kiloPascals. The tanks, therefore, will be subject only to 326 IAC 12, (40 CFR Part 60.116b, Subpart Kb). This rule requires that the owner or operator keep readily accessible records showing the dimensions of the storage vessels and an analysis showing the capacities of the storage vessels.

COMMENT 19:

Operating Conditions

Performance Testing
7) Please revise, as per Operating Condition 7 of permit CP-129-7488-0035 issued April 23, 1997, to Consolidated Grain & Barge Company, enabling testing of representative facilities.

Particulate Matter Limitation
10(c) The condition should be replaced with a table that lists the individual processes and respective process emission limits.

10(c) That pursuant to CSE Processing, LLC's request, the particulate matter (PM) emission rates shall be limited to the potential emissions as reported below:

Facility PM Emission Rate (lbs/hour): Truck Scale Receiving System 0.43; Whole Bean Leg (grain elevator) 0.13; Day Bin (soybeans) 0.015; Shift Surge Bin (soybeans) 0.015; Internal Operations (cleaning) 0.03; Screenings Bin 0.013; Hot Dehulling Surge Bin 0.013; Hot Dehulling 18; Flaking 0.39; Meal Dryer 8.8; Meal Cooler 9.6; Meal Grinding/Sizing 0.13; Hull Grinding 0.13; Meal Shift Tanks (#1 & #2) 0.13; Ground Hull Tank 0.13; Meal Blending 0.09; Meal Loading Tanks (#1, #2, #3, & #4) 0.34; Truck Meal Loadout 0.43; Rail Meal Loadout 0.43; Salt Storage 0.03.

Baghouse Operating Condition
The following clarifications have as their precedent permit CP-129-7488-0035 issued April 23, 1997, to Consolidated Grain & Barge Company.

11(a) Clarify the location of the static pressure measurement by changing "baghouses" to "baghouse tubesheets".

11(e) Reflect the fact that the immediate shutdown of a baghouse associated with an extraction plant may create unsafe conditions by inserting after "immediately" the words "or as quickly as is safe".

BACT Condition
Replace condition 15(a) with the following:

15(a) That pursuant to 326 IAC 8-1-6, the VOC (hexane) emissions from the soybean oil extractor plant shall comply with the Best Available Control Technology (BACT) for the oil extractor, meal dryers, and meal cooler. The company shall assure compliance with BACT by performing monitoring and record keeping such that the following limits are not exceeded:

(1) the hexane usage shall be limited to 0.25 gallons per ton of soybeans crushed for the first year and 0.24 gallons per ton of soybeans crushed after the first year, and

(2) the soybeans processed shall be limited to 730,000 tons of soybeans processed per year, based on a 365 day rolling average.

The limits established above correspond to the following BACT determination:

Facility BACT VOC (hexane) Emission Limit including upset conditions Oil extractor, desolventizer, solvent distillation, and vent system Mineral Oil Absorber System 0.120 lb/ton soybean processed Meal dryers None 0.153 lb/ton soybean processed Meal cooler None 0.153 lb/ton soybean processed

Note: 4) See enclosed calculation supporting the above BACT limits.

15(c) Replace the condition with the following: "The hexane emission rate from the meal dryer cyclones and the meal cooler cyclone shall be determined daily by laboratory test if the lower meal temperature of the desolventizer is below 215°F. If the meal temperature of the desolventizer is above 215°F, then the hexane emission rate will be based on the compliance test results."

15(e) Delete items (ii) and (iii). Replace 15 (e)(ii) with the following:

15(e)(ii) At the end of each calendar year the company shall submit to the IDEM a progress report of efforts taken to reduce hexane emissions from the plant.

Storage Tank NSPS
Revise by referencing two (2) hexane tanks and six (6) soybean oil tanks.

RESPONSE 19:

Performance Testing and Particulate Matter Limitation
Operation Condition 7 (now Condition D.1.7) has been revised as indicated in IDEM revision (c) in the first section of this addendum. Operation Condition 10(c) has been replaced.

The potential emissions provided in Comment 19 are the potential emissions after controls. These limits were calculated in the same way as in the initial application for processes without a baghouse. For the processes with a baghouse, the emission limitations calculated in Comment 19 were calculated using a grain loading of 0.005 grains per dry standard cubic foot and an exit gas flow rate for each stack. The calculation method used for baghouses is inconsistent with the method of using AP-42 emission factors supplied in the permit application and used in TSD Appendix A and TSD Addendum Appendix A. In response to the requested limit, the limit will be included in the Permit as Condition D.1.4. Allowable emissions pursuant to 326 IAC 6-3-2(c) and 40 CFR 60.302 (NSPS Subpart DD) were calculated in the attached page 3 of 14 of TSD Addendum Appendix A. The limits contained in Condition D.1.4 will demonstrate compliance with the allowable emissions based on 326 IAC 6-3-2. All control devices must be operated at all times when the corresponding equipment is in operation to show compliance with the limits. Operation Condition 10(d) is also incorporated into Condition D.1.4 since the PM limits keep the source a minor source of PM based on 326 IAC 2-2, PSD. Condition D.1.4 is shown along with a comparison of allowable and potential PM emissions after controls. Only the numbered and lettered paragraphs are included in the permit.

D.1.4 Particulate Matter Limitations [326 IAC 2-2] [326 IAC 6-3-2]

(a) The Permittee shall comply with the following PM emission limitations:

(1) The grain elevator and truck scale receiving system, both exhausting to stack S1a, shall be limited to PM emissions of no more than 0.56 pounds per hour.

This limitation is based on the following calculation: 0.005 gr/dscf * 60 min/hr *13,000 dscf/min / 7,000 gr/lb. Since the potential emissions after controls based on AP-42 emission factors are 0.138 pounds per hour, the facilities will meet the limit. Compliance will be demonstrated by operating the fabric filter at all times when either or both of the whole bean leg (grain elevator) and truck scale receiving system are in operation. Since the total allowable emissions through stack S1a based on 326 IAC 6-3-2(c) are 105.6 pounds per hour, this limit will ensure compliance with 326 IAC 6-3-2(c).

(2) The day bin and shift surge bin for whole bean storage, both exhausting to stack S1b, shall be limited to PM emissions of no more than 0.03 pounds per hour.

This limitation is based on the following calculation: 0.005 gr/dscf * 60 min/hr * 700 dscf/min / 7,000 gr/lb. Since the potential emissions after controls based on AP-42 emission factors are 0.014 pounds per hour, the facilities will meet the limit. Compliance will be demonstrated by operating the fabric filter at all times when either or both of the day bin and shift surge bin are in operation. Since the total allowable emissions through stack S1b based on 326 IAC 6-3-2(c) are 107.6 pounds per hour, this limit will ensure compliance with 326 IAC 6-3-2(c).

(3) The soybean cleaning operations, consisting of the scalperator, screenings bin, and hot dehulling surge bin, all exhausting to stack S2, shall be limited to PM emissions of no more than 0.06 pounds per hour.

This limitation is based on the following calculation: 0.005 gr/dscf * 60 min/hr * 1,500 dscf/min / 7,000 gr/lb. Since the potential emissions after controls based on AP-42 emission factors are 0.093 pounds per hour, the baghouse monitoring conditions will indicate that the facilities meet the limit. The fabric filter must be in operation at all times when the soybean cleaning operations are taking place. Since the total allowable emissions through stack S2 based on 326 IAC 6-3-2(c) are 153.9 pounds per hour, this limit will ensure compliance with 326 IAC 6-3-2(c).

(4) The hot dehulling operations including the bean heater, three (3) jet dryers, three (3) hulloosenators, three (3) split soy aspirators, three (3) crackers, three (3) conditioners, one (1) hulls screener, and one (1) secondary dehulling aspirator exhausting through stack S3 shall be limited to total PM emissions of 18.0 pounds per hour.

This limitation is based on manufacturers specifications of emissions after controls. Compliance will be demonstrated by operating the cyclones at all times when any or all of the hot dehulling operations are taking place. Since the total allowable emissions through stack S3 based on 326 IAC 6-3-2(c) are 51.3 pounds per hour, this limit will ensure compliance with 326 IAC 6-3-2(c).

(5) The flaking operations consisting of ten (10) flakers exhausting to stack S4 shall be limited to PM emissions of 0.39 pounds per hour.

This limitation is based on the following equation: 0.005 gr/dscf * 60 min/hr * 9,000 dscf/min / 7,000 gr/lb. Since the potential emissions after controls based on AP-42 emission factors are 0.046 pounds per hour, the facilities will meet the limit. Compliance will be demonstrated by operating the fabric filter at all times when the flaking operations are taking place. Since the total allowable emissions through stack S4 based on 326 IAC 6-3-2(c) are 53.5 pounds per hour, this limit will ensure compliance with 326 IAC 6-3-2(c).

(6) The meal dryer exhausting to stack S5 shall be limited to PM emissions of 14.4

pounds per hour.

Since potential PM emissions after controls from the meal dryer are 14.4 pounds per hour, the meal dryer will meet this limit. Compliance will be demonstrated by operating the two (2) cyclones at all times when the meal dryer is in operation. Since the total allowable emissions through stack S5 based on 326 IAC 6-3-2(c) are 49.1 pounds per hour, this limit will ensure compliance with 326 IAC 6-3-2(c).

(7) The meal cooler exhausting to stack S6 shall be limited to PM emissions of 15.2 pounds per hour.

Since potential PM emissions after controls from the meal cooler are 15.2 pounds per hour, the meal cooler will meet this limit. Compliance will be demonstrated by operating the cyclone at all times when the meal cooler is in operation. Since the total allowable emissions through stack S6 based on 326 IAC 6-3-2(c) are 49.1 pounds per hour, this limit will show compliance with 326 IAC 6-3-2(c).

(8) The meal grinding and sizing operations including the one (1) meal screen, two (2) hammermills, and one (1) aspirator exhausting to stack S7 shall be limited to PM emissions of 0.13 pounds per hour.

This limitation is based on the following calculation: 0.005 gr/dscf * 60 min/hr * 3,000 dscf/min / 7,000 gr/lb. Since potential PM emissions from the meal grinding and sizing operations after controls based on AP-42 emission factors are 0.255 pounds per hour, the baghouse monitoring condition will indicate that the facilities meet the limit. Compliance will be demonstrated by operating the fabric filter and cyclone at all times when the meal grinding and sizing operations are taking place. Since the total allowable emissions through stack S7 based on 326 IAC 6-3-2(c) are 48.4 pounds per hour, this limit will ensure compliance with 326 IAC 6-3-2(c).

(9) The two (2) hull grinders exhausting to stack S8 shall be limited to PM emissions of 0.13 pounds per hour.

This limitation is based on the following calculation: 0.005 gr/dscf * 60 min/hr * 3,000 dscf/min / 7,000 gr/lb. Since potential PM emissions after controls from the hull grinders based on AP-42 emission factors are 0.040 pounds per hour, the facilities will meet this limit. Compliance will be demonstrated by operating the fabric filter at all times when the hull grinders are in operation. Since the total allowable emissions through stack S8 based on 326 IAC 6-3-2(c) are 36.5 pounds per hour, this limit will ensure compliance with 326 IAC 6-3-2(c).

(10) The two (2) meal shift tanks, the ground hull tank, and the meal blending operations, all exhausting to stack S9 shall be limited to PM emissions of 0.34 pounds per hour.

This limitation is based on the following calculation: 0.005 gr/dscf * 60 min/hr * 8,000 dscf/min / 7,000 gr/lb. Since total potential PM emissions after controls from stack S9 based on AP-42 emission factors are 0.033 pounds per hour, these facilities will meet this limit. Compliance will be demonstrated by operating the fabric filter at all times when the two (2) meal shift tanks, the ground hull tank, and the meal blending operations are in operation. Since the total allowable emissions through stack S9 based on 326 IAC 6-3-2(c) are 133 pounds per hour, this limit will ensure compliance with 326 IAC 6-3-2(c).

(11) The four (4) meal loading bins exhausting to stack S10c shall be limited to total PM

emissions of 0.34 pounds per hour.

This limitation is based on the following calculation: 0.005 gr/dscf * 60 min/hr * 8,000 dscf/min / 7,000 gr/lb. Since potential PM emissions after controls from the meal loading bins based on AP-42 emission factors are 0.005 pounds per hour, the facilities will meet this limit. Compliance will be demonstrated by operating the fabric filter at all times when the four (4) meal loading bins are in operation. Since the total allowable emissions through stack S10c based on 326 IAC 6-3-2(c) are 51.7 pounds per hour, this limit will ensure compliance with 326 IAC 6-3-2(c).

(12) The truck meal loadout consisting of the truck meal loading scale exhausting to stack S10a shall be limited to PM emissions of 0.43 pounds per hour.

This limitation is based on the following calculation: 0.005 gr/dscf * 60 min/hr * 10,000 dscf/min / 7,000 gr/lb. Since potential PM emissions after controls from the truck meal loadout based on AP-42 emission factors are 0.019 pounds per hour, the facility will meet this limit. Compliance will be demonstrated by operating the fabric filter at all times when the truck meal loading scale is in operation. Since the total allowable emissions through stack S10a based on 326 IAC 6-3-2(c) are 47.8 pounds per hour, this limit will ensure compliance with 326 IAC 6-3-2(c).

(13) The rail meal loadout consisting of the rail meal loading scale exhausting to stack S10b will be limited to PM emissions of 0.43 pounds per hour.

This limitation is based on the following calculation: 0.005 gr/dscf * 60 min/hr * 10,000 dscf/min / 7,000 gr/lb. Since potential PM emissions after controls from the rail meal loadout based on AP-42 emission factors are 0.028 pounds per hour, the facility will meet this limit. Compliance will be demonstrated by operating the fabric filter at all times when the rail meal loadout is in operation. Since the total allowable emissions through stack S10b based on 326 IAC 6-3-2(c) are 51.6 pounds per hour, this limit will ensure compliance with 326 IAC 6-3-2(c).

(14) The salt storage bin exhausting to stack S11b will be limited to PM emissions of 0.03 pounds per hour.

This limitation is based on the following calculation: 0.005 gr/dscf * 60 min/hr * 10,000 dscf/min / 700 gr/lb. Since potential PM emissions after controls from the salt storage bin based on AP-42 emission factors are 0.020 pounds per hour, the facility will meet this limit. Compliance will be demonstrated by operating the fabric filter at all times when the salt storage bin is in operation. Since the total allowable emissions through stack S11b based on 326 IAC 6-3-2(c) are 38.4 pounds per hour, this limit will ensure compliance with 326 IAC 6-3-2(c).

(b) The limits contained in D.1.4(a) (1) through (14) will satisfy the requirements of 326 IAC 6-3.

(c) The PM limits contained in (1) through (14) of this condition result in PM and PM_{10} emissions of no more than 50.5 pounds per hour, which is equivalent to 221 tons per year. The total PM emissions including combustion and fugitive emissions shall not exceed 226 tons per year. This will make the requirements of 326 IAC 2-2 not applicable.

(d) Any change or modification which may increase the potential to emit from the equipment covered in this permit to 250 tons per year or more of PM or PM_{10} shall obtain a PSD permit pursuant to 326 IAC 2-2 before such a change may occur.

Baghouse Operation Condition

Operation Condition 11 (now Conditions D.1.11 and D.1.12) has been revised to incorporate the suggested wording as follows:

D.1.11 Parametric Monitoring for Baghouses

The Permittee shall take readings of the total static pressure drop across the baghouse tubesheets, at least once per day while the baghouse is in operation when exhausting to the atmosphere. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 1 and 12 inches of water. The Preventive Maintenance Plan for these baghouses shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of this range for any one reading.

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

D.1.12 Broken Bag or Failure Detection

In the event that bag failure has been observed:

(a) The affected filters will be shut down immediately or as soon as it is safe to do so until the failed units have been repaired or replaced.

(b) Within eight (8) 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) hours of discovery of the failure and shall include a timetable for completion.

BACT Condition

The BACT Condition has been changed as indicated in (b) of the IDEM changes. The changes requested have been incorporated into this condition. A difference in limits between what is requested in this comment and what appears on the permit (as indicated in (b) of IDEM changes) is due to updated calculations (See pages 4 through 14 of 14 of TSD Addendum Appendix A).

Storage Tank NSPS

Operation Condition 18 (now Condition D.1.15 (a)) has been revised as indicated in Response 18.

COMMENT 20:

Public Comment

If deemed necessary, the following may be addressed in the permit in response to a public comment:

As stated in the application, the majority of the grain processed will be transferred from a local elevator, which is located on an adjoining property. The FESOP issued to this facility will be evaluated by the owner , and, if necessary, replaced with a Title V permit.

RESPONSE 20:

See Response 5.

On November 4, 1997, David B. Smith, PE, Central Soya Company, Inc., submitted comments on the proposed construction permit. The comments and corresponding responses are as follows:

General Comments

COMMENT 21:

The permit application submitted by CSE notes that soybeans will be " . . . transferred from a local elevator, which is located on an adjoining property." Although not indicated specifically in the Application, Central Soya presumes that this elevator is one owned and operated by Central States Enterprises, Inc. (Source ID 003-00019), and regulated under Federally Enforceable State Operating Permit F 003-5113-00019. Central Soya also presumes that Central States Enterprises, Inc., has some manner of control and/or interest in CSE. Both the CSE Permit Application and the Central States Federally Enforceable State Operating Permit (FESOP) list the same individual, Mr. John Stanford, as State Operating Permit (FESOP) list the same individual, Mr. John Stanford, as the Responsible Official for both plants. However, neither the Permit Application nor the Technical Support Document (TSD) address this relationship to determine if the proposed new plant in reality a modification of an existing plant. In addition, neither the Application nor the TSD address the impact of this proposed construction on the FESOP for Central States Enterprises, Inc.

RESPONSE 21:

See Response 5.

COMMENT 22:

Indiana Rule 326 IAC 2-1-3.4 established requirements for certain new sources of Hazardous Air Pollutants (HAPs). This Rule indicates that it is applicable to any new or modified source of HAPs for which a Construction Permit has been issued after the effective date of the Rule. The Application and TSD indicate that the source is expected to be a major HAP source (potential emissions of hexane of 350 tons per year). The Application, TSD, and Permit merely indicate that the proposed control system satisfied the New Source Air Toxics Control requirements; however, there is no documentation as to how this determination was made.

RESPONSE 22:

As stated in the TSD under the title "326 IAC 8-1-6 (Best Available Control Technology)," catalytic incineration, recuperative thermal incineration, regenerative thermal incineration and carbon adsorption are not safe when operating at a soybean processing plant where oil extraction takes place due to an explosion hazard. The mineral oil absorber is typically used at soybean processing plants and other plants that have been permitted with the same system, in particular, CP 129-5718 for Consolidated Grain and Barge Company of Mt. Vernon, issued October 30, 1996 and CP145-4300 for Central Soya Company, Inc. (the company to which Mr. Smith belongs), issued July 17, 1995. Since this source is considered a transition source for New Source Air Toxics Control pursuant to 326 IAC 2-1-3.4(e) and the application was on file at IDEM prior to June 29, 1998, no MACT analysis is required in the application. However, MACT conditions are required in the permit. Since there is no presumptive MACT for this type of facility, IDEM has determined that the BACT will satisfy the requirements of 326 IAC 2-1-3.4. The rationale behind the control device decision is as follows:

Controls on dryers and cooler:

(a) Carbon Adsorber - A carbon adsorber can overheat for several reasons. Among these are poor conditioning of the carbon (which can create dead spots where cooling by the carrier media can not occur rapidly enough) and over drying of the carbon bed during surges caused by process upsets. The absorption of VOCs (hexane) on activated carbon generates heat equivalent to the latent heat of vaporization for the compound being adsorbed. Under the conditions 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 in the carbon bed, but during an upset or when the equipment or controls fall, overheating will occur. Carbon adsorbers do not fail to a safe mode. Failure of the adsorption system's components will lead to overheating. This makes the carbon adsorbers a potential source of ignition and an explosion hazard.

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 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. Under these conditions a flame front could flow back into the process from the adsorber. National Fire Protection Association (NFPA) has disallowed the use of carbon adsorber. The same argument was submitted to EPA several times about using carbon adsorber in dryers and cooler. The EPA agreed with this. (Memphis and Shelby County Health Department and US EPA).

(b) Incineration - The wide range of waste gases that would be ducted to control device cover a wide range of flow volumes and solvent concentrations. Variable flows and solvent concentrations greatly hamper safe and efficient operation. The exposure of the entire extraction plant to the ignition source resulting from a flashback in the duct system to the incineration is considered a fire and explosion hazard. The NFPA standards for extraction plants preclude direct vapor pathways to flame operations. Therefore, this control is not technically feasible.

(c) Mineral Oil Absorber - The meal dryers and cooler exhaust air streams have a relatively high airflow and have a relatively low concentration of hexane. However an absorption system can be used for lower or higher concentrations of hexane in the flow steam. Technologically

it is feasible. A cost analysis for the mineral oil absorber was prepared by the applicant and is attached as Appendix C.

Collection of fugitive emissions:

(a) To install the carbon adsorber to this ventilation system, the problem is the same as experienced by dryer or cooler. In case of upset, and hot spot in the adsorber, the flame could propagate from the adsorber to the extraction building which may cause explosion. The NFPA standards for extraction plants preclude direct vapor pathways to flame operations. Therefore, this control is not technically feasible.

(b) The source has agreed to install a refrigerated condenser on the main outlet of the absorber.

(c) The source will perform a leak detection analysis on fugitive emission points and will repair leaking parts.

(d) The source has also agreed to install an oil dryer in the oil distillation system to reduce residual solvent content in the oil produced.

Comments Specific to Draft Permit

COMMENT 23:

Proposed Construction Condition 7. NSPS Reporting Requirement: This condition requires that CSE report information regarding certain sources applicable to New Source Performance Standards, including "grain operations." The Permit does not specify, however, which operations are considered to be grain operations. Proposed Conditions 9 and 10 imply that the units covered by NSPS include the grain elevator, truck scale receiving system, day bin and shift surge bin, and the soybean-cleaning operation. Central Soya believes, however, that these limits apply to any operation in which whole beans are handled. Based upon this, the bean heater and three jet dryers should also be subject to NSPS requirements.

RESPONSE 23:

As stated in 40 CFR Part 60.300(b), the effected facilities include all grain handling operations. The bean heater and three (3) jet dryers included in the hot dehulling process are process operations and not part of the grain handling operations. Therefore, the bean heater and three (3) jet dryers are not subject to NSPS requirements. Solely the dryers specified in the NSPS are subject to the requirements of the NSPS. Since the three (3) jet dryers are not specified in the NSPS, there are no changes to the permit.

COMMENT 24:

Proposed Operation Condition 10(a) Particulate Matter Limitation: These limits are listed at 0.01 grams per dry standard cubic foot but should be listed as 0.01 grains per dry standard cubic foot.

RESPONSE 24:

Proposed Operation Condition 10(a) (now Condition D.1.2) has been revised to correct this typographical error. The correct unit was used in all calculations. Therefore, no other changes are necessary.

COMMENT 25:

Proposed Operation Condition 10(c) Particulate Matter Limitation: This Condition established a limit of 49.4 pounds per hour based upon a process weight rate of 83 tons per hour. Several plant operations, however, are listed in the Permit Application with maximum unit capacities above 83 tons per hour, including soybean transfer and storage (150 TPH). In addition, it is not clear how the 49.4 pound per hour limit relates to individual stacks and whether this limit includes stack emissions only or both stack and fugitive emissions.

RESPONSE 25:

Upon further review, a PM emission limitation based on 326 IAC 6-3-2(c) and NSPS Subpart DD have been applied individually to each process in page 3 of 14 of TSD Addendum Appendix A. As indicated in Response 19, each stack has been limited based on the potential to emit after controls. These limits will ensure compliance with 326 IAC 6-3-2(c). The individual limits will facilitate compliance testing of the limit if testing is required.

COMMENT 26:

Operating Condition 10(d) Particulate Matter Limitation: This Condition limits particulate matter and PM_{10} emissions to no more than 249 tons per year to avoid the applicability of Prevention of Significant Deterioration (PSD) regulations. Based upon discussions which Central Soya has had with IDEM staff in the past, Central Soya has understood that a tons-per-year limit of this type is not considered to be enforceable as it establishes no parameters (such as individual stack limits or throughput limitations) by which compliance with the limit may be gauged.

RESPONSE 26:

The PM emission limitations of D.1.4 make the source a minor source of PM based on 326 IAC 2-2, PSD. The process weight rate of 730,000 tons per year based on a 12-month rolling average included in the New Facilities; General Reduction Requirements and New Source Air Toxics Control Condition along with the operation of all control devices at all times when the corresponding equipment is in operation ensures that the requirements of 326 IAC 2-2, PSD are not applicable. Compliance monitoring is required to ensure that the control devices are operating efficiently. Operation Condition 10(d) (now part of Condition D.1.4) has been revised as indicated in Response 19. Condition D.1.4 includes individual short term emission limitations necessary to limit the potential to emit of the entire source.

COMMENT 27:

Proposed Operating Condition 11(d) Baghouse Operating Condition: This condition requires that an inspection be performed each calendar quarter for each baghouse. It is not clear if such inspections must be internal or may be external inspections of the baghouse. Given the nature of the requirement to replace defective bags, Central Soya presumes that IDEM intends that this be an internal inspection of the baghouse.

RESPONSE 27:

Baghouse inspections are no longer required in this permit as indicated in item (f) of IDEM changes, page 7 of 45 of this document.

COMMENT 28:

Proposed Operating Condition 15(a) BACT Condition and New Source Air Toxics Control: This provision requires that the mineral-oil system be operated to satisfy BACT and New Source Air Toxics Control requirements. This analysis appears to be flawed for the following reasons:

(a) No analysis of alternative control technologies was provided in the Application. The TSD notes that certain technologies were determined to be unfeasible; however, no backup documentation was provided. No analysis of the cost of the proposed control system or the costs of alternative systems was provided.

(b) No attempt has been made to compare the proposed limit of 202 tons per year of VOC emissions to emission limits from similar sources to determine if the limit is, in fact, as stringent as limits incorporated into permits for similar sources.

(c) No documentation is provided as to whether any of the "fugitive" emissions occur in an enclosed area, such as a ventilated process building. Any such emissions would typically be considered to be point-source emissions and included for the purpose of PSD applicability.

(d) The summary of hexane emissions provided by CSE does not provide information on hexane expected to remain in the soybean oil.

RESPONSE 28:

(a) Pursuant to 326 IAC 2-1-3.4(e), because this source has a permit application pending after July 27, 1997 and prior to June 29, 1998, no analysis from the applicant is required for this rule, New Source Air Toxics Control. However, the MACT condition is necessary. The mineral oil absorber in conjunction with the refrigerated condenser, soybean oil dryer, leak detection and repair inspection and the emission limitations contained in Condition D.1.5, was determined to be the best available and maximum achievable control technology (BACT and MACT) for this plant based on the fact that a mineral oil absorber is typically used at soybean processing plants recently permitted, in particular, CP 129-5718 for Consolidated Grain and Barge Company of Mt. Vernon, issued October 30, 1996 and CP 145-4300 for Central Soya Company, Inc. of Morristown, issued July 17, 1995. The mineral oil absorber was determined to be the best available control technology and the maximum achievable control technology when compared to other add-on controls because catalytic incineration, recuperative thermal incineration, regenerative thermal incineration and carbon adsorption are not safe when operated at a soybean processing plant where oil extraction takes place due to an explosion hazard. The technical analysis is included in Response 22. There is no need to analyze the cost of these systems, if installing them would be dangerous. The same conclusion was drawn in the TSD to CP 145-4300 for Central Soya Company, Inc. of Morristown (the company for which Mr. Smith works). A cost analysis for the mineral oil absorber was prepared by the applicant and is attached as Appendix C.

(b) Since the capacity of similar plants vary greatly, the allowable emissions in pounds of hexane per ton of grain processed have been compared. Based on the US EPA BACT/LAER Clearing House, the following table was prepared for sources using a mineral oil absorber as a hexane control device:

Company	**Hexane Sources**	**Capacity** (tons/yr)	**VOC** (tons/yr)	**VOC** (lbs/ton)
Boon Valley Corp.	Extraction Meal Dryer Meal Cooler	1,350,000 1,350,000 1,350,000	265 945 756	0.39 1.40 1.12
Owensboro Grain	Total Extraction	360,000	517	2.9
Cargill, Inc. Savage, MN	Extraction Meal dryer Meal Cooler Extractor Bldg.	495,000 396,000 396,000 495,000	574 396	2.9 (avg. over 24 hours) 2.0 (avg. over 30 days)
Central Soya Company, Inc. Morristown, IN	Extraction Meal Dryer Meal Cooler	803,000 803,000 803,000	48.2 64.2 64.2	0.12 0.16 0.16
CSE Processing, LLC New Haven, IN	Extraction Meal Dryer Meal Cooler	730,000 730,000 730,000	25.3 83.1 30.5	0.069 0.228 0.083

The limited emissions for Boon Valley Corp., Owensboro Grain, and Cargill, Inc. are less stringent. The limited emissions for Central Soya Company, Inc. and CSE Processing, LLC are similar, but the net effect of the CSE Processing, LLC limits is more stringent. See Appendix B for a comparison of compliance monitoring conditions with similar facilities permitted recently in Indiana.

(c) The breakdown of hexane emissions including fugitive emissions are as listed on pages 12, 13 and 14 of 14 of the TSD Addendum Appendix A. The same conclusions regarding fugitive emissions were drawn in the TSD for Central Soya Company, Inc. (CP 145-4300).

(d) The breakdown of hexane emissions including the amount of hexane in the soybean oil are as listed on pages 12, 13, and 14 of 14 of TSD Addendum Appendix A.

COMMENT 29:

Proposed Operating Condition 15(c) and (d) BACT Condition and New Source Air Toxics Control: These conditions require CSE to maintain records of the quantity of soybeans processed in the dryer and cooler, and the hexane content of the soybean meal exiting the meal dryer and coolers. It is not clear how this information is intended to relate to any enforceable emission limits. Central Soya presumes that this information would be used in some manner to determine compliance with stack emission limits. Since inlet hexane concentrations are not required, however, it is not clear how such a computation would be performed. In addition, it is not clear whether the hexane content must be

determined as the soybean meal exits both the dryer and the cooler or if it is intended to relate only to the outlet of the cooler.

RESPONSE 29:

Proposed Operation Condition 15 BACT Condition and New Source Air Toxics Control (now Condition D.1.13, New Facilities; General Reduction Requirements and New Source Air Toxics Control Monitoring) now requires readings of the hexane content of the meal entering and exiting the meal dryer and entering and exiting the meal cooler. The production limit along with the VOC testing will enforce the limits.

COMMENT 30:

Application Content - Tank Information: The Application submitted by CSE indicates that the only storage tank proposed for the facility is one hexane storage tank. Since the plant will be producing soybean oil, the plant must, at a minimum, have additional storage for miscella and for vegetable oil.

RESPONSE 30:

Additional tanks have been added and evaluated as indicated in Comment 18 and Response 18.

COMMENT 31:

Application Content - Grain Loading: The Application indicates several emission points, including Stacks S4, S9, S10a, S10b, and S10c with grain loadings below 0.001 grains per dry standard cubic foot of exhaust air. It is Central Soya's experience that such grain loadings are unrealistically low and cannot be achieved in practice.

RESPONSE 31:

CSE Processing, LLC has re-evaluated their grain loadings and the corresponding control efficiencies and emissions. The baghouse grain loadings are now approximated at 0.005 grains per dry standard cubic foot. The only revision to the control efficiencies was a change in the control efficiency at the hot dehulling operations. This change is included in the calculations on page 1 of 14 of TSD Addendum Appendix A. The grain loading of 0.005 grains per dry standard cubic foot has been used in calculating the PM emission limits of D.1.4.

COMMENT 32:

As summarized in these comments, Central Soya believes that there are significant applicability and compliance issues which need to be resolved in this Draft Permit. Therefore, Central Soya requests a Public Hearing to obtain clarification of these issues.

RESPONSE 32:

A public hearing was held on January 8, 1998, from 7:05 PM to 9:10 PM at the New Haven Adams Township Park, 1125 Hartzell Street, New Haven, Indiana 46774.

The people on the attached list submitted comments on the proposed construction permit during the public comment period from October 10, 1997 through November 9, 1997. The summary of comments and corresponding responses are as follows:

COMMENT 33:

The Public Notice in the local newspaper was vague. Why is this source being kept so secret?

RESPONSE 33:

The purpose of the Public Notice is to provide a general announcement and to inform the public of when and where the proposed permit and technical support document will be available for review. The OAM has no intention of keeping this source a secret or of making the public notices intentionally vague.

COMMENT 34:

I am concerned with the additional dust and traffic problems that will be created from more trucks and rail cars moving soybeans into and products out of the plant.

RESPONSE 34:

The source shall comply with all applicable particulate matter limitations as listed in Operation Condition 10 (now Conditions D.1.2 through D.1.4), as well as the fugitive dust emission limitation of Operation Condition 13 (now Condition C.5). See Response 6 for details. CSE Processing, LLC addresses the traffic concern further in the response letter attached. Should anyone find reason to believe that the Permittee is not in compliance with the permit conditions, that person should contact the OAM Compliance Section. There will be an Air Compliance Inspector assigned to this source.

COMMENT 35:

The site of the new plant is vague. Will the plant be built on top of a landfill? Will the plant be near individual homes, businesses, shopping areas, churches, and schools? Wouldn't it be better in a more remote area? The application does not even say where on Parrot Road the Plant will be located.

RESPONSE 35:

A site plan indicating the location of the plant was included in the application package and used in modeling the potential hexane concentrations. The plant will be located on Parrot Road adjacent to the Norfolk Southern Railroad yard. The site plan is available to the public. The OAM has no jurisdiction on land zoning. The proposed source has undergone OAM review to ensure that the source will comply with applicable state and federal air regulations. Questions regarding land zoning can

be directed to the Zoning Board. CSE Processing, LLC addresses the issue of location further in the response letter attached. Also, see Response 1.

COMMENT 36:

The notice in the newspaper indicates the VOC, PM, and PM_{10} allowable emissions are expected to be an additional 249 tons per year. What exactly does this mean?

RESPONSE 36:

The U.S. EPA and the IDEM implement a Clean Air Act program known as Prevention of Significant Deterioration (PSD). This program contains requirements for major sources to ensure that certain air pollution control technology and air quality criteria are satisfied. CSE Processing, LLC would be considered a major source if allowed to emit more than 250 tons per year of any air pollutant as laid out under the PSD rules. While this permit limits CSE Processing, LLC to less than 250 tons per year, the emission limitations are essentially the same as they would be if subject to PSD.

OAM conducts a review generally for any significant air emission source, trying to relate the air emissions coming out of the stacks or an other place at the plant to what the air quality is around the plant. The purpose is to determine if the introduction of that amount of pollutants is going to cause a concentration in the air of any of these pollutants above health-related standards. This type of review was conducted for this facility. The results are as summarized in Response 1. The results indicated that the concentrations of the pollutants were below the NAAQS.

COMMENT 37:

Soybean processing plants use some flammable chemicals. If this is correct, will they be emitted into the air? What will the dangers be? I understand these types of processing plants use large quantities of a hexane solvent and I am concerned about the resulting air quality and safety issues surrounding a plant in such close proximity to the downtown New Haven buildings and residential properties. There is no direct mention of the hexane pollution this will cause to the air, ground, and water quality in this area.

RESPONSE 37:

See Response 7.

COMMENT 38:

No one knows if the pollution will harm the Maumee River which is nearby.

RESPONSE 38:

CSE Processing, LLC addresses this issue in the response letter attached. There is no direct discharge into the Maumee River or any stream or body of water that requires a water discharge permit. The company is covered by the provisions of the general permit rules for storm water runoff by the Office of Water Management. The general permit for water discharge is not issued to individual companies. If the company meets the requirement of 327 IA 15-6, then the company is covered by the general permit. CSE Processing, LLC believes that it meets the applicability

requirements. Therefore, the company is covered by the general permit.

OAM coordinates permit reviews involving multi-media issues. To OAM's knowledge, no other permits are required for this company.

COMMENT 39:

A public hearing is requested.

RESPONSE 39:

A public hearing was held on January 8, 1998, from 7:05 to 9:10 PM at the New Haven Adams Township Park, 1125 Hartzell Street, New Haven, Indiana 46774.

On November 10, 1997, Marion Zuercher of 348 Tweedwood Drive, New Haven, Indiana 46774 submitted the above comments on the proposed construction permit along with the following comment:

COMMENT 40:

I am also very concerned since I have a serious allergy to soy products. Will I be breathing Soy whenever I go outside my home?

RESPONSE 40:

The OAM does not perform a specific review about the individual characteristics of the particulate matter that will be emitted. The total amount of particulate matter is relatively small, and the OAM does an air quality review to show that the health standards will be met, which implies that any specific compound that makes up the particulate matter will be present in a relatively small concentration. OAM does not believe that there would be any one compound in those relatively small amounts that would pose a health problem. OAM relies on the federal guidelines which are based on public health effects. See Response 1 for PM modeling results and Responses 2 and 36 for information on how compliance with the NAAQS was evaluated.

On November 10, 1997, Joyce Hetrick of 206 Hartzell Road, New Haven, Indiana submitted two (2) letters with comments on the proposed construction permit including the above comments along with the following comments. The summary of the comments and corresponding responses are as follows:

COMMENT 41:

There is a confusion about this permit requisition as there is a Central States Enterprises, Inc. at 356 Hartzell Road, New Haven, Indiana 46774, but this application permit says that the operation will be on Parrot Road but as I checked there is no driveway, or any address to give information on the application as to where this proposed plant will be. Upon talking with Mayor Lynn Shaw of New Haven, he suggested I look at the New Haven Library but nothing in all the 3/4" papers had this information.

RESPONSE 41:

A site plan indicating the location of the plant was included in the application package and used in modeling the potential hexane concentrations. The site plan is available to the public. The plant will be located on Parrot Road adjacent to the Norfolk Southern Railroad yard and adjacent to Central States Enterprises, Inc. at 356 Hartzell Road. The CSE Process, LLC soybean processing plant and the Central States Enterprises, Inc. facilities on the adjacent property may be considered a single source. See Response 5 for more information on the source issue. CSE Processing, LLC addresses the issue of location further in the response letter attached.

COMMENT 42:

The information states that two other large companies will also be involved, in addition to Central States Enterprises, Inc., they are Norfolk and Western Railroad, 8111 Nelson Road, New Haven, Indiana 46774 and the National Recycling Corporation, 5214 Old Maumee Road, New Haven, Indiana 46774.

RESPONSE 42:

These companies were notified of the proposed soybean processing plant due to their close proximity with the plant pursuant to IC 13-7-10-1.1.

COMMENT 43:

Mayor Lynn Shaw of New Haven said he had no jurisdiction over the matter which is at New Haven, yet he has fought the Adams Center Landfill of Chemical Waste Management, Inc. in Fort Wayne.

RESPONSE 43:

Mayor Lynn Shaw will be better able to address this concern.

COMMENT 44:

The June 18, 1997 application was signed by Central States Enterprises, Inc., John Stanford does not give the necessary facts and with 26 million, 280 thousands bushels of soybeans being processed a year, there will be a vast amount of hexane exposed into the air by vapors which are deadly, being similar to paint thinner and the hexane will be stored in tanks similar to gasoline tanks. The soybean oil will be processed with fabric filters, which will clean, dry, and store the product. The present plant of Central States Enterprises, Inc. run noisy grain dryers at night to full capacity and the chaff, dirt, mold smell is beyond words a gritty, dusty deal.

RESPONSE 44:

The application submitted by CSE Processing, LLC was determined to be complete. The information was adequate to calculate the emissions and determine the applicable rules and compliance. The source will be required to abide by the permit conditions. Any notice of the source not complying with the conditions in the permit should be reported to the OAM Air Compliance Section. The existing Central States Enterprises, Inc. source is currently permitted and has complied with all conditions contained in that permit (F003-5113-00019) issued December 6, 1996.

On November 5, 1997, Henry Graves of 7914 Red Clover Lane, Fort Wayne, Indiana 46815, submitted comments on the proposed construction permit. The summary of the comments and corresponding responses are as follows:

COMMENT 45:

I have several questions that I feel need to be answered in a public hearing so that all people and opinions can be expressed. These include:

1. Pollutants and emissions of toxic chemicals into the air and water.
2. Increase noise levels from the added trucks into and out of the New Haven residential areas.
3. Increase noise levels from the added railroad cars needed to be switched into and out of the residential New Haven area.
4. Special concerns around the new soccer and little league park being built across the river from this plant as it relates to noise, smell, toxic pollutants, explosion of hexane solvent used in the soybean crushing process and public injury or death.
5. Why has this company not been responsible in communicating and disclosing all the aspects of this plant to the citizens of Allen County and New Haven? Toxic, extremely explosive and hazardous chemicals that are used in a soybean processing plant are issues that need and demand a public hearing.
6. Why has this company been allowed to sneak this permit through without fully disclosing the potential hazards of this plant to the public?
7. Is nondisclosure against the law?
8. Who will pay for my decreased property value when this noisy, toxic pollutant, water contaminating, loud, explosive, dangerous plant the that does not belong in a city residential area is built?

RESPONSE 45:

1. See Responses 1 and 7.
2. Noise levels are not regulated by the OAM. These concerns can be better addressed by CSE Processing, LLC. You may seek assistance at the local level.
3. Noise levels are not regulated by the OAM. These concerns can be better addressed by CSE Processing, LLC. You may seek assistance at the local level.
4. Please, see Responses 1, 2, and 7.
5. Due to public concern, the source has taken steps to communicate with the public as indicated by the CSE Processing, LLC response letters attached. CSE Processing, LLC did notify the owners and occupants of the adjoining properties pursuant to IC 13-7-10-1.1. Those notified include Central States Enterprises, Inc., 356 Hartzell Road, National Recycling Corp., 5214 Old Maumee Road, and Norfolk & Western, 8111 Nelson Road.
6. Permits undergo the public comment period so that nothing “sneaks” by the public. These public comments are an example of how the public comment period works. All information requested in the application forms has been made available to the public through the public comment period. The company has disclosed all information in response to information

requested. A public hearing was held on January 8, 1998, from 7:05 to 9:10 PM at the New Haven Adams Township Park, 1125 Hartzell Street, New Haven, Indiana 46774.

7. The CSE Processing, LLC permit application was determined complete. The application package was certified and notarized prior to submittal.

8. The OAM has no jurisdiction over this issue.

On October 23, 1997, Gail Matthews of 1130 Powers Street, New Haven, Indiana 46774, submitted comments on the proposed construction permit. The summary of the comments and corresponding responses are as follows:

COMMENT 46:

The location of this proposed plant is near downtown New Haven and is less than 1.5 miles from my family's home. It is also close to other residential developments and parks (the new Maumee Park on North River Road and River Greenway which my family uses considerably during the summer months). I am concerned that the dust and other air pollutants from the plant and trucks will have a negative impact on New Haven and the surrounding community. I have a daughter with allergies and a son who previously had lung problems.

RESPONSE 46:

See Responses 1 and 2.

COMMENT 47:

I am concerned about the increased noise, increased truck traffic, and other effects the proposed plant will have on area residents, parks, and businesses. When I-469 was finally opened, it was a relief to and pleasure to get rid of the truck traffic off my front street.

RESPONSE 47:

Noise levels are not regulated by the OAM. These concerns can be better addressed by CSE Processing, LLC. You may seek assistance at the local level. CSE Processing, LLC addresses the traffic issue in the response letter attached.

COMMENT 48:

Isn't it bad enough that we have the Adams Center Landfill in our community? Although I encourage the economic development the construction of this plant represents, I don't believe this location is suitable.

RESPONSE 48:

The OAM has no jurisdiction on land zoning. The proposed source has undergone OAM review to ensure that the source will comply with applicable state and federal air regulations. See Responses 1 and 3.

COMMENT 49:

I am concerned about the volatile chemicals (hexane) used in the processing of soybeans. In fact, several years ago, Indianapolis had an explosion from a soybean processing facility that wrecked neighborhoods for miles. My recollection was that is due to a hexane leak and that it was devastating.

RESPONSE 49:

Please see Response 7. The compliance monitoring conditions for the General Provisions Relating to VOC rules and New Source Air Toxic Control (Condition D.1.13) will help to ensure that the hexane emissions are minimized and that every step is taken upon operation of the facility to assure that safe procedures are used and that the workers and the public will be protected from mishandling of hexane at the plant. Leak detection and prevention measures are included in the General Provisions Relating to VOC rules and New source air toxics control monitoring conditions.

ATTACHMENT: LETTERS FROM THE SOURCE:

(a) John Stanford, Vice President of CSE Processing, LLC, responded to comments submitted by opposing bean processing plant employees, except employees of Central Soya. CSE Processing, LLC chose to address their comments separately from the IDEM responses. The following has been retyped from his letter dated November 4, 1997.

LETTER

"I wanted to respond to your letter to the Indiana Department of Environmental Management and address your concerns regarding the proposed addition to the Central States Enterprises Grain Terminal in New Haven.

The location of the proposed soybean processing facility is adjacent to the existing Grain Terminal and to the Norfolk Southern Railroad yard. The processing facility is in an area zoned as "I-3, Heavy Industry." Unlike the bean processing facilities in Decatur, Indiana, and Delphos, Ohio, our facility is at least one-half mile from the nearest residence. It is more than a mile from New Haven churches, schools, and downtown businesses. The facility will not be built on any landfill and will neither draw water from nor discharge water into the Maumee River.

All soybeans grown in this area are transported to market by truck or train. The impact of this new facility on truck and train traffic will be negligible since the soybeans we will be processing, for the most part, will be the same soybeans we are receiving at our current facility now.

This will be a state-of-the-art facility. The pollution suppression systems which will be used in this facility represent the latest available technology, and they are certainly a vast improvement over the systems which have been used at our competitor's facilities in Decatur and Delphos. A copy of the full IDEM application, including a complete discussion of any possible pollutants and steps taken to prevent pollution, is on file at the New Haven Library.

If you would like to discuss any aspect of our soybean processing facility or our current grain operation, please feel free to give me a call. We have enjoyed doing business in New Haven for the past 50 years and are committed to continuing our good relationship with this community."

(b) Jon Cavanaugh, Marketing Director of CSE Processing, LLC responded to comments submitted by the Citizens of New Haven. CSE Processing, LLC chose to address their comments separately from the IDEM responses. The following has been retyped from his letter dated November 6, 1997.

LETTER

"Central States Enterprises has initiated plans to build and operate a soybean processing plant in conjunction with our grain terminal. Unfortunately, employees of our competitor, Central Soya of Decatur, have been approaching New Haven residents and providing them with information which mischaracterizes our proposed operation. I am writing to you in the hopes of putting to rest any concerns that this information may have caused you.

The location of the proposed soybean processing facility is adjacent to the existing Grain Terminal and to the Norfolk Southern Railroad yard. The processing facility is in an area zoned as 'I-3, Heavy Industry.' Unlike the bean processing facilities in Decatur, Indiana, and Delphos, Ohio, our facility is at least one-half mile from the nearest residence. It is more than a mile from New Haven churches, schools, and downtown businesses. The facility will not be built on any landfill and will neither draw water from nor discharge water into the Maumee River.

All soybeans grown in this area are transported to market by truck or train. The impact of this new facility on truck and train traffic will be negligible since the soybeans we will be processing, for the most part, will be the same soybeans we are receiving at our current facility now.

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If you would like to discuss any aspect of our soybean processing facility or our current grain operation, please feel free to give me a call. We have enjoyed doing business in New Haven for the past 50 years and are committed to continuing our good relationship with this community."

The phone number included in the bottom of letters from CSE Processing, LLC is (219)749-0022.

ATTACHMENT: PUBLIC COMMENTS WERE RECEIVED FROM:

Adams, Judith J.	183 Rose Avenue, New Haven, IN 46774
Ahlersmeyer, Heinrich W.	10919 Towpath Court, New Haven, IN 46774
Alacken, Sharon	318 West Tyland, New Haven, IN 46774
Allgood, Marvin & Bessie	355 Tanglewood Drive, New Haven, IN 46774
Ammerman, Mr. & Mrs. Blair	1914 North Tyland Blvd., New Haven, IN 46774
Amstutz, Gloria	710 Park Avenue, New Haven, IN 46774
Bade, Mr. & Mrs. Norman	182 Bade Street, New Haven, IN 46774
Bandelier, Delores	212 Hartzell Road, New Haven, IN 46774
Bassett, Matthew E. Sr.	227 Tweedwood Drive, New Haven, IN 46774
Bell, Rex R.	1828 South Tyland Blvd., New Haven, IN 46774
Black, Martha P.	326 Tanglewood Drive, New Haven, IN 46774
Browand, Nancy	236 Tanglewood Drive, New Haven, IN 46774
Burke, Carol	14027 Bremer Road, New Haven, IN 46774
Cave, Bernard R.	326 Tanglewood Drive, New Haven, IN 46774
Chrisler, Joseph	375 Tweenwood Drive, New Haven, IN 46774
Clark, Bill & Jerry	207 Tanglewood Drive, New Haven, IN 46774
Coen, Otes	1424 Canal Ridge Drive, New Haven, IN 46774
Comito, Gennaro E.	332 Tweedwood Drive, New Haven, IN 46774
Critell, Robert & Agnes Sr.	1830 North Tyland Blvd., New Haven, IN 46774
Crum, Kenneth	133 Tweedwood Drive, New Haven, IN 46774
Dankert, David	8815 Jonathan Place, New Haven, IN 46774
Donley, Mr. & Mrs. David	10863 Keelboat Cove, New Haven, IN 46774
Egri, Melanie	733 Park Avenue, New Haven, IN 46774
Ellison, Kent	727 Park Avenue, New Haven, IN 46774
Ferrell, Willadine	303 Tylar Parkway, New Haven, IN 46774
Fyda, Frank J.	201 Bade Street, New Haven, IN 46774
Graham, Billie & Rosalie	758 Lincoln Highway East, New Haven, IN 46774

Graves, Henry	7914 Red Clover Lane, Fort Wayne, IN 46815
Gross, John D.	739 Park Avenue, New Haven, IN 46774-1339
Haines, Audrey L.	1703 North Tyland Blvd., New Haven, IN 46774
Hatcher, Pat	2017 Tweedwood Court, New Haven, IN 46774
Heemsoth, Barry Lee	1726 Bruggeman Road, New Haven, IN 46774
Henry, Dave & Brenda	319 Tylar Parkway, New Haven, IN 46774
Hetrick, Joyce	206 Hartzell Road, New Haven, IN 46774
Hitchcock, Sarah J.	340 Tweedwood Drive, New Haven, IN 46774
Holman, Jim	550 Courtney Drive, New Haven, IN 46774
Houk, Mr. & Mrs. W. B.	1722 North Tyland Blvd., New Haven, IN 46774
Hower, Vilena	716 Park Avenue, New Haven, IN 46774
Hugenard, Ortheda	744 Lincoln Highway East, New Haven, IN 46774
Hugenard, Judy A..	704 Park Avenue, New Haven, IN 46774
Johnson, Kirby L.	325 West Tyland Blvd., New Haven, IN 46774
Jump, Charles W.	2020 Tweedwood Circle, New Haven, IN 46774
Karpe, Annette	317 Tweedwood Drive, New Haven, IN 46774
Kraning, Diana	10916 Trailwood Lane, New Haven, IN 46774
Kunkel, Denny	109 Tweedwood Drive, New Haven, IN 46774
Lambert, Ted M.	124 Rose Avenue, New Haven, IN 46774
Long, Elmer & Donna	1823 North Tyland, New Haven, IN 46774
Love, Dennis G.	236 Tweedwood Drive, New Haven, IN 46774
Mann, Carol A.	312 Tylar Parkway, New Haven, IN 46774
Matthews, Gail D.	1130 Powers Street, New Haven, IN 46774
McComb, William & Louise	133 Sturm Street, New Haven, IN 46774
Meredith, Bobby & Dorothy	325 Tanglewood Drive, New Haven, IN 46774
Merritt, Melissa D.	1717 North Tyland, New Haven, IN 46774
Meyer, Karon	1920 South Tyland Blvd., New Haven, IN 46774
Miller, Gary	650 Tylar Parkway, New Haven, IN 46774

Miller, Wayne M.	10839 Keelboat Cove, New Haven, IN 46774
Mohr, Charles Sr.	215 Twillo Run, New Haven, IN 46774
Morin, Jay & Crystal	10830 Towpath Court, New Haven, IN 46774
Mowery, Steven	128 Sturm Street, New Haven, IN 46774
Nomina, Janice	343 Tylar Parkway, New Haven, IN 46774
Pemberton, Sherri	124 Rose Avenue, New Haven, IN 46774
Putnam, Theodore	121 Rose Avenue, New Haven, IN 46774
Renner, Michael & Jeanette	228 Twillo Run, New Haven, IN 46774
Ritt, Art	10830 Trailwood Lane, New Haven, IN 46774
Ross, Stephen	1325 Lost Lock Way, New Haven, IN 46774
Rush, Rhonda	1231 Lost Lock Lane, New Haven, IN 46774
Sarrazin, Arlene	366 Tweedwood Drive, New Haven, IN 46774
Sauders, Everett H.	1728 North Tyland Blvd., New Haven, IN 46774
Schane, Sherly L.	326 Tweedwood Drive, New Haven, IN 46774
Schenk, Edith & John	116 Tweedwood Drive, New Haven, IN 46774
Schulke, John C.	L & S Alignment-Tune Up, Inc., 220 Hartzell Road, New Haven, IN 46774
Shaffer, Norma & Stan	1723 North Tyland Blvd., New Haven, IN 46774
Shaffer, Paul	304 West Tyland Blvd., New Haven, IN 46774
Shifley, Orlo & Dorothy	302 Tweedwood Drive, New Haven, IN 46774
Shoda, Mr. & Mrs. Ralph	309 Tweedwood Drive, New Haven, IN 46774
Smith, George J.	1714 South Tyland Blvd., New Haven, IN 46774
Smith, David B.	Central Soya, P.O. Box 1400, Ft. Wayne, IN 46801-1400
Springer, Harry & Kathryn	292 Rose Avenue, New Haven, IN 46774
Spyker, Ronda L.	10910 Trailwood Lane, New Haven, IN 46774
Steven, Peggy	10802 Towpath Court, New Haven, IN 46774
Stier, Gerald L.	178 Strum Street, New Haven, IN 46774
Stilwell, Shirley	10903 Towpath Court, New Haven, IN 46774
Strader, Darvin & Dorceil	732 Park Avenue, New Haven, IN 46774

Szink, Robert & Elna	1322 Canal Ridge, New Haven, IN 46774
Tarrez, Delores G.	241 Tanglewood Drive, New Haven, IN 46774
Thompson, George & Leona	369 Tweedwood Drive, New Haven, IN 46774
Trzynka, Dennis & Ruth	221 Tweedwood Drive, New Haven, IN 46774
Turner, Donald & Shirely	1412 Canal Ridge Drive, New Haven, IN 46774
Tuttle, Mark & Mary	303 Twillo Run Drive, New Haven, IN 46774
Voirol, Sandra	187 Bade Street, New Haven, IN 46774
Waters, Rich & Diana	340 Tanglewood Drive, New Haven, IN 46774
Wenward, Marcus	318 Tanglewood Drive, New Haven, IN 46774
White, Charles E.	347 Tweedwood Drive, New Haven, IN 46774
Winchester, Leroy	215 Lincoln Highway East, New Haven, IN 46774
Wolf, Gerald L.	331 Tweedwood Drive, New Haven, IN 46774
Yant, David	206 Hartzell Road, New Haven, IN 46774
Zuercher, Marion I.	348 Tweedwood Drive, New Haven, IN 46774