Mr. Darin P. Salyer
Vitamins, Inc.
1700 East US Highway 12
Michigan City, IN 46360

Re: Significant Source Modification No:
091-10824-00104

Dear Mr. Salyer:

Vitamins, Inc. applied for a Part 70 operating permit on December 18, 1996 for a wheat germ oil extraction and processing plant. An application to modify the source was received on March 31, 1999. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

(a) One (1) extraction plant, identified as the French Extractor, with a maximum production rate of 42 tons of raw wheat germ per hour, utilizing a mineral oil absorption system for volatile organic compound control and a cyclone for particulate matter control, exhausting through stack ID # 006 (cyclone) and 007 (French Extractor); and

(b) One (1) tank, identified as Work Tank, with a maximum tank capacity of 4250 gallons, storing hexane.

The proposed Significant Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(l)(3). If there are no changes to the proposed construction of the emission units, the source may begin operating on the date that IDEM receives an affidavit of construction pursuant to 326 IAC 2-7-10.5(h). If there are any changes to the proposed construction the source can not operate until an Operation Permit Validation Letter is issued.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter contact Yvette de los Angeles, c/o OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham or extension (3-6878), or dial (973) 575-2555, extension 3216.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments
YD/EVP
cc: File - LaPorte County
U.S. EPA, Region V
Air Compliance Section Inspector Rick Reynolds
Compliance Data Section - Jerri Curless
Administrative and Development - Janet Mobley
Technical Support and Modeling - Nancy Landau

PART 70 SIGNIFICANT SOURCE MODIFICATION
OFFICE OF AIR MANAGEMENT

Vitamins, Inc.
1700 East US Highway 12
Michigan City, Indiana 46360

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

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

Source Modification No.: 091-10824-00104	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary wheat germ oil extraction and processing plant.

Responsible Official:	Darin P. Salyer
Source Address:	1700 East US Highway 12, Michigan City, Indiana 46360
Mailing Address:	1700 East US Highway 12, Michigan City, Indiana 46360
Phone Number:	(219) 879-7356
SIC Code:	2041
County Location:	LaPorte
County Status:	Nonattainment for sulfur dioxide (SO_2) Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD or Emission Offset Rules; Minor Source, Section 112 of the Clean Air Act

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

This stationary source is approved to construct and operate the following emission units and pollution control devices:

(a) One (1) extraction plant, identified as the French Extractor, with a maximum production rate of 42 tons of raw wheat germ per day, utilizing a mineral oil absorption system for volatile organic compound control and a cyclone for particulate matter control, exhausting through stack ID # 006 (cyclone) and 007 (French Extractor); and

(b) One (1) tank, identified as Work Tank, with a maximum tank capacity of 4250 gallons, storing hexane.

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

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

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Permit No Defense [IC 13]

This approval 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 Definitions [326 IAC 2-7-1]

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

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

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

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

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

B.5 Significant Source Modification [326 IAC 2-7-10.5(h)]

This document shall also become the approval to operate pursuant to 326 IAC 2-7-10.5(h) when, prior to start of operation, the following requirements are met:

(a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the emission units were constructed as proposed in the application. The emissions units covered in the Significant Source Modification approval may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM if constructed as proposed.

(b) If actual construction of the emissions units differs from the construction proposed in the application, the source may not begin operation until the source modification has been revised pursuant to 326 IAC 2-7-11 or 326 IAC 2-7-12 and an Operation Permit Validation Letter is issued.

(c) 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.

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

However, in the event that the Title V application is being processed at the same time as this application, the following additional procedures shall be followed for obtaining the right to operate:

(a) If the Title V draft permit has not gone on public notice, then the change/addition covered by the Significant Source Modification (SSM) will be included in the Title V draft.

(b) If the Title V permit has gone thru final EPA proposal and would be issued ahead of the SSM, then the SSM will go thru a concurrent 45 day EPA review. Then the SSM will be incorporated into the final Title V permit at the time of issuance.

(c) If the Title V permit has not gone thru final EPA review and would be issued after the SSM is issued, then the SSM would be added to the proposed Title V permit, and the Title V permit will be issued after EPA review.

SECTION C GENERAL OPERATION CONDITIONS

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

(a) Where specifically designated by this approval or required by an applicable requirement, any application form, report, or compliance certification submitted under this approval shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, and any other certification required under this approval, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, on the attached Certification Form, with each submittal.

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

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

(a) If required by specific condition(s) in Section D of this approval, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this approval, including the following information on each facility:

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

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

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this approval.

(b) Any application requesting an amendment or modification of this approval shall be submitted to:

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

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule

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

C.4 Opacity [326 IAC 5-1]

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

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.5 Operation of Equipment [326 IAC 2-7-6(6)]

All air pollution control equipment listed in this approval and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.6 Stack Height [326 IAC 1-7]

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

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

C.7 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, utilizing methods approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this approval, 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 prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the 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.

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

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

C.8 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Compliance with applicable requirements shall be documented as required by this approval. 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 receipt of this approval. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend the compliance schedule an additional ninety (90) days provided the Permittee notifies:

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

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

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

C.9 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5][326 IAC 2-7-6] [326 IAC 1-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this approval;

(3) The Compliance Monitoring Requirements in Section D of this approval;

(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 approval; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this approval. 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 issuance of this approval 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 approval; 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 approval, 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 approval 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 approval conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the approval, 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.10 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this approval exceed the level specified in any condition of this approval, 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 approval conditions may be grounds for immediate revocation of the approval to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.11 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

(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 approval 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 approval 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 approval.

(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.12 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

(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 for a minimum of three (3) years and available upon the request of an IDEM, OAM representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(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 approval;

(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 approval, and whether a deviation from a approval 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 of approval issuance.

C.13 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

(a) The reports required by conditions in Section D of this approval 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

(b) Unless otherwise specified in this approval, any notice, report, or other submission required by this approval 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) Unless otherwise specified in this approval, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) The first report shall cover the period commencing on the date of issuance of this approval and ending on the last day of the reporting period.

C.14 Malfunctions Report [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]

SECTION D.1 FACILITY OPERATION CONDITIONS

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

(a) One (1) extraction plant, identified as the French Extractor, with a maximum production rate of 42 tons of raw wheat germ per day, utilizing a mineral oil absorption system for volatile organic compound control and a cyclone for particulate matter control, exhausting through stack ID # 006 (cyclone) and 007 (French Extractor); and

(b) One (1) tank, identified as Work Tank, with a maximum tank capacity of 4250 gallons, storing hexane.

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

D.1.1 New Facilities; General Reduction Requirements [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the mineral oil absorption system with 98% control efficiency in conjunction with the following emissions limits shall be considered the best available control technology (BACT) for the wheat germ oil extraction and processing plant.

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

Facility	Control	VOC (Hexane) Usage Limits
French Extractor	mineral oil absorption system	9.6 gallons/ton

(b) The Permittee shall install a meal desolventizer dryer and the oil distillation system to reduce residual solvent content in the oil produced.

(c) This wheat germ oil extraction and processing plant shall also minimize VOC (hexane) losses to the atmosphere by training operators and supervisors of the plant.

D.1.2 Hazardous Air Pollutants (HAPs) [326 IAC 2-4.1-1]

The single and total HAPs usage from the French Extractor shall be limited to less than 10 and 25 tons per 12 consecutive month period, respectively, using a mineral oil absorption system with 98% control efficiency. Therefore, the maximum achievable control technology (MACT) requirement in 326 IAC 2-4.1-1 (New Source Toxics Control) does not apply. Any change or modification, from the French Extractor that would increase in single and total HAP emissions to more than 10 and 25 tons per year, shall obtain approval from the Office of Air Management (OAM), as required by 326 IAC 2-1 before such change can occur.

D.1.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the French Extractor shall not exceed 5.97 pounds per hour when operating at a process weight rate of 3,500 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

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

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

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

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

During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform VOC, PM and PM-10 testing utilizing 326 IAC 3-2.1 (Source Sampling Procedures) for VOC, Methods 5 or 17 (40 CFR 60, Appendix A) for PM, and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

D.1.6 Particulate Matter (PM)

The cyclone for PM control shall be in operation at all times when the French Extractor is in operation.

D.1.7 Volatile Organic Compounds (VOC)

The mineral oil absorption system for VOC control shall be in operation at all times when the French Extractor is in operation.

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

D.1.8 Visible Emissions Notations

(a) Daily visible emission notations of the cyclone stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.1.9 Cyclone Inspections

An inspection shall be performed each calender quarter of the cyclone controlling the French Extractor when venting to the atmosphere. A cyclone inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective parts shall be replaced.

D.1.10 Cyclone Failure Detection

In the event that cyclone failure has been observed:

(a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. For the cyclone, failed units and the associated process will be shut down immediately 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.1.11 New Facilities; General Reduction Requirements Monitoring [326 IAC 8-1-6]

(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 cyclone and cooler cyclone shall be determined by laboratory test if the lower meal temperature of the desolventizer is below 215ºF, 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.

An as 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 70ºF or not more than 5ºF higher than the ambient wet bulb temperature when the ambient wet bulb temperature is greater than 75ºF. 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. An as 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 180ºF 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. An as 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 vent gases from the hexane storage tanks shall be directed to the absorber system.

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

D.1.12 Record Keeping Requirements

(a) To document compliance with Condition D.1.1, 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 completed and sufficient to establish compliance with the VOC emission limits established in Condition D.1.1.

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

(2) The process weight rate in tons of wheat germ processed 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 tons of wheat germ processed for each compliance period based on the compliance monitoring conditions of D.1.11.

(b) To document compliance with Condition D.1.9 the Permittee shall maintain records of daily visible emission notations of the cyclone stack exhaust.

(c) To document compliance with Condition D.1.10, the Permittee shall maintain records of the results of the inspections required under Condition D.1.10 and the dates the vents are redirected.

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

D.1.13 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1 and D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

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

PART 70 SOURCE MODIFICATION CERTIFICATION

Source Name: Vitamins, Inc.
Source Address: 1700 East US Highway 12, Michigan City, Indiana 46360
Mailing Address: 1700 East US Highway 12, Michigan City, Indiana 46360
Source Modification No.: 091-10824-00104

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

Please check what document is being certified:

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Other (specify) _____

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

Signature:

Printed Name:

Title/Position:

Date:

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

Source Modification Quarterly Report

Source Name: Vitamins, Inc.
Source Address: 1700 East US Highway 12, Michigan City, Indiana 46360
Mailing Address: 1700 East US Highway 12, Michigan City, Indiana 46360
Source Modification No.:091-10824-00104
Facility: mineral oil extraction system
Parameter: VOC (Hexane)
Limit: 9.6 gallons/ton of wheat germ processed, based on a 12-month rolling average

YEAR: _____

Month	Hexane emissions	Hexane emissions	Hexane emissions
	This Month (gal/ton)	Previous 11 Months (gal/ton)	12 Month Total (gal/ton)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

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

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

Source Modification Quarterly Report

Source Name: Vitamins, Inc.
Source Address: 1700 East US Highway 12, Michigan City, Indiana 46360
Mailing Address: 1700 East US Highway 12, Michigan City, Indiana 46360
Source Modification No.:091-10824-00104
Facility: French Extractor
Parameter: Single hazardous air pollutants (HAPs)
Limit: The single HAP usage is limited to less than 10 tons per twelve (12) consecutive month period. During the first 11 months of this permit, the single HAP usage shall be limited such that the total single HAP usage divided by the accumulated months of operation shall not exceed 0.8325 tons per month.

YEAR: _____

Month	Total Single HAP Emissions This Month (tons)	Previous 11 Month Single HAP Emissions (tons)	12 Month Total Single HAP Emissions (tons)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

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

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

Source Modification Quarterly Report

Source Name: Vitamins, Inc.
Source Address: 1700 East US Highway 12, Michigan City, Indiana 46360
Mailing Address: 1700 East US Highway 12, Michigan City, Indiana 46360
Source Modification No.:091-10824-00104
Facility: French Extractor
Parameter: Total hazardous air pollutants (HAPs)
Limit: The total HAP usage is limited to less than 25 tons per twelve (12) consecutive month period. During the first 11 months of this permit, the total HAP usage shall be limited such that the total HAP usage divided by the accumulated months of operation shall not exceed 2.0825 tons per month.

YEAR: _____

Month	Total HAP Emissions This Month (tons)	Previous 11 Month HAP Emissions (tons)	12 Month Total HAP Emissions (tons)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

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

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 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES ?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100 TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. 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: Vitamins, Inc. PHONE NO. (219) 879-7356

LOCATION: (CITY AND COUNTY) Michigan Coty, LaPorte County
PERMIT NO. 091-10824 AFS PLANT ID: 091-00104 AFS POINT ID: _____ INSP: Rick Reynolds
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:_____

*SEE PAGE 2

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. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

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.

***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

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

Source Background and Description

Source Name:	**Vitamins, Inc.**
Source Location:	**1700 East US Highway 12, Michigan City, IN 46360**
County:	**LaPorte**
SIC Code:	**2041**
Source Modification No.:	**091-10824-00104**
Permit Reviewer:	**Yvette de los Angeles/EVP**

On June 30, 1999, the Office of Air Management (OAM) had a notice published in the News Dispatch, Michigan City, Indiana, stating that Vitamins, Inc. had applied for a Significant Source Modification to a Part 70 Operating Permit for the operation of a wheat germ oil extraction and processing plant. 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.

On July 13, 1999, Vitamins, Inc submitted comments on the proposed Significant Source Modification to a Part 70 Operating Permit. The summary of the comments and corresponding responses are as follows (changes in bold or strikeout for emphasis):

Comment 1:

Beginning on page 3, Section A.2, the maximum production rate of the plant is listed incorrectly as 42 tons per hour. The correct rate should be 42 tons per day. This error appears in several other locations throughout the document.

Response 1:

Section A.2 will be modified as follows:

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

This stationary source is approved to construct and operate the following emission units and pollution control devices:

(a) One (1) extraction plant, identified as the French Extractor, with a maximum production rate of 42 tons of raw wheat germ per ~~hour~~ **day**, utilizing a mineral oil absorption system for volatile organic compound control and a cyclone for particulate matter control, exhausting through stack ID # 006 (cyclone) and 007 (French Extractor); and

The Facility Description in Section D.1 will also be modified as stated above.

Comment 2:

Remove the General Reduction Requirement D.1.1 (b) found on page 13. This requirement was created due to a misunderstanding which resulted from a review of the process flow diagram that was contained in the permit application.

Response 2:

After careful review of the process flow diagram, it was determined that there will be no refrigerated condenser installed on the main outlet vent of the mineral oil absorber. Therefore, Condition D.1.1will be modified as follows:

D.1.1 New Facilities; General Reduction Requirements [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the mineral oil absorption system with 98% control efficiency in conjunction with the following emissions limits shall be considered the best available control technology (BACT) for the wheat germ oil extraction and processing plant.

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

Facility	Control	VOC (Hexane) Usage Limits
French Extractor	mineral oil absorption system	9.6 gallons/ton

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

~~(c)~~ **(b)** The Permittee shall install a meal desolventizer dryer in the oil distillation system to reduce residual solvent content in the oil produced.

~~(d)~~ **(c)** This wheat germ oil extraction and processing plant shall also minimize VOC (hexane) losses to the atmosphere by training operators and supervisors of the plant.

Comment 3:

Remove the General Reduction Requirement D.1.11(a). This requirements is considered redundant since General Reduction Requirements D.1.11(b), (c) and (d) will ensure that the mineral oil system is functioning properly.

Response 3:

IDEM, OAM believes it is necessary to include Condition D.1.11(a) as part of the monitoring requirements for the mineral oil system in order to ensure proper operation of the mineral oil system. This monitoring condition has been required in other similar plants recently permitted, in particular, CSE Processing, LLC (CP-003-8716-00281), issued on April 9, 1998 and ConAgra Soybean Processing Company (CP-129-8541-00039), issued on August 14, 1998. Therefore, there will be no change to this permit due to this comment.

Comment 4:

Reduce the manual monitoring requirements in Section D.1.11(b), (c) and (d) to once per every two hours instead of once per hour.

Response 4:

IDEM, OAM believes it is necessary to manual monitor the hexane emission rate, mineral oil temperature and the amount of mineral oil to the mineral oil stripping column once every hour as part of the monitoring requirements for the mineral oil system in order to ensure proper operation of the mineral oil system. This monitoring condition has been required in other similar plants recently permitted, in particular, CSE Processing, LLC (CP-003-8716-00281), issued on April 9, 1998 and ConAgra Soybean Processing Company (CP-129-8541-00039), issued on August 14, 1998. Therefore, there will be no change to this permit due to this comment.

Indiana Department of Environmental Management
Office of Air Management

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

Source Background and Description

Source Name:	**Vitamins, Inc.**
Source Location:	**1700 East US Highway 12, Michigan City, IN 46360**
County:	**LaPorte**
SIC Code:	**2041**
Source Modification No.:	**091-10824-00104**
Permit Reviewer:	**Yvette de los Angeles/EVP**

The Office of Air Management (OAM) has reviewed a modification application from Vitamins, Inc. relating to the operation of a wheat germ oil extraction and processing plant.

History

On March 31, 1999, Vitamins, Inc. submitted an application to the OAM requesting to add additional extraction plant to their existing facility. An application for a Part 70 permit (T-091-7767-00104) for the existing source was received on December 18, 1996 and is currently being reviewed by IDEM.

New Emission Units and Pollution Control Equipment

The application includes information relating to the construction and operation of the following equipment:

(a) One (1) extraction plant, identified as the French Extractor, with a maximum production rate of 42 tons of raw wheat germ per hour, utilizing a mineral oil absorption system for volatile organic compound control and a cyclone for particulate matter control, exhausting through stack ID # 006 (cyclone) and 007 (French Extractor); and

(b) One (1) tank, identified as Work Tank, with a maximum tank capacity of 4250 gallons, storing hexane.

Existing Approvals

The source applied for a Part 70 Operating Permit (T-091-7767-00104) on December 18, 1996.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
006	Cyclone	35	0.25	300	ambient
007	French extractor	20	0.25	30	90

Recommendation

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

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on March 31, 1999.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (two (2) pages).

Potential To Emit

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

Pollutant	Potential To Emit (tons/year)
PM	1,433.02
PM-10	1,433.02
SO_2	0.00
VOC	415.39
CO	0.00
NO_x	0.00

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Hexane	greater than 10
TOTAL	greater than 25

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM-10 and VOC are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

Actual Emissions

No previous emission data has been received from the source.

Limited Potential to Emit

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

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Mineral Oil Scrubber	0.00	0.00	0.00	8.27	0.00	0.00	8.27
French Extractor	26.13	7.17	0.00	0.00	0.00	0.00	0.00
Work Tank	0.00	0.00	0.00	0.04	0.00	0.00	0.04
Total Emissions	26.13	7.17	0.00	8.31	0.00	0.00	8.31

County Attainment Status

The source is located in LaPorte County.

Pollutant	Status
PM-10	attainment
SO_2	maintenance
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) 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. LaPorte County has been designated as attainment or unclassifiable for ozone.

Source Status

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

Pollutant	Emissions (ton/yr)
PM	7.17
PM10	7.17
SO_2	0.00
VOC	8.27
CO	0.00
NO_x	0.00
Single HAP	8.27
Combination HAPs	8.27

(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, no nonattainment pollutant is emitted at a rate of 100 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 2-3, and 40 CFR 52.21, the PSD and Emission Offset requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This source has submitted their Part 70 (T-091-7767-00104) application on December 18, 1996. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

Federal Rule Applicability

(a) The one (1) tank is not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110, Subpart Kb) because the storage capacity of the tank is less than 40 cubic meters.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of PM-10 and VOC. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

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

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

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

The French Extractor is not subject to the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control). This rule requires all facilities constructed after July 27, 1997, which have potential to emit of single and total HAPs of 10 and 25 or more tons per year, respectively, to reduce single and total HAP emissions using Maximum Achievable Control Technology (MACT). This source has potential to emit of hexane emissions of 1.89 pounds per hour, which is equivalent to 8.3 tons per year, utilizing a mineral absorption system with 98% control efficiency. Therefore, the French Extractor will not be subject to the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control).

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the French Extractor shall be limited by the following:

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

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

$E = 4.10(1.75^{0.67}) = 5.97$ lbs/hr

Based on this calculation, the controlled potential PM emissions of 1.64 lbs/hr are less than the allowable emissions of 5.97 lbs/hr. Therefore, French Extractor complies with the rule.

The cyclone shall be in operation at all times the French Extractor is in operation, in order to comply with this limit.

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

The French Extractor is subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements). This rule requires all facilities constructed after January 1, 1980, which have potential VOC emission rate of 25 or more tons per year, and which are not otherwise regulated by other provisions of 326 IAC 8, to reduce VOC emissions using Best Available Control Technology (BACT). A mineral oil absorption system with 98% control efficiency to be operated at all times the French Extractor is in operation, shall be required by this permit. This is accepted as BACT by OAM. The mineral oil absorber limits VOC (hexane) emissions to 1.89 pounds per hour from the mineral oil system, which is equivalent to 8.3 tons per year. As part of BACT, this wheat germ oil extraction and 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; and

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

Compliance Requirements

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

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

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

1. The French Extractor has applicable compliance monitoring conditions as specified below:

(a) Daily visible emissions notations of the cyclone exhaust shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

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

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) 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) Part 70 Application Form GSD-08.

(a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.

(b) See attached calculations for detailed air toxic calculations (Appendix A, Page 1 of 2).

Conclusion

The operation of this wheat germ oil extraction and processing plant shall be subject to the conditions of the attached proposed **Significant Source Modification Permit No. 091-10824-00104.**

Appendix A: VOC Emissions

Company Name: Vitamins, Inc.
Address City IN Zip: 1700 E US Hwy 12, Michigan City, IN 46360
CP: 091-10824
Plt ID: 091-00104
Reviewer: Yvette de los Angeles/EVP
Date: 08/19/99

Uncontrolled Potential Emissions (tons/year)						
Process	No. of Units	Flow Rate (cfm)	Vent Gas Density (1) (lb/ft^3)	Hexane Concentration (2) (lb Hex. / lb gas)	Control Efficiency	Total (tons/yr)
Mineral Oil Scrubber	1	11.00	0.11	1.30	98.00%	413.38
Total Emissions Based on Rated Capacity at 8,760 Hours/Year						**413.38**

Controlled Potential Emissions (tons/year)						
Process	No. of Units	Flow Rate (cfm)	Vent Gas Density (1) (lb/ft^3)	Hexane Concentration (2) (lb Hex. / lb gas)	Control Efficiency	Total (tons/yr)
Mineral Oil Scrubber	1	11.00	0.11	1.30	98.00%	8.27
Total Emissions Based on Rated Capacity at 8,760 Hours/Year and source controls						**8.27**

Methodology:

(1) and (2) (information provided by the source): Vent gas density and hexane concentration obtained from Oil Mill Gazetteer, June 1982, Operation & Maintenance of Mineral Oil Solvent Reovery Systems, Martin G. Horsman

Uncontrolled Potential Emissions = No. Units * Flow Rate (cfm) * Vent Gas Density (lb/ft^3) * Hexane Concentration (lb Hex./lb gas) * (60 min/hr) * (1 ton/2000 lb) * (8760 hr/ 1 yr)

Controlled Potential Emissions = No. Units * Flow Rate (cfm) * Vent Gas Density (lb/ft^3) * Hexane Conc. (lb Hex./lb gas) * (60 min/hr) * (1 ton/2000 lb) * (8760 hr/ 1 yr) * (1 - control efficiency)

Appendix A: Process Particulate Emissions

Company Name: Vitamins, Inc.
Address City IN Zip: 1700 E US Hwy 12, Michigan City, IN 46360
CP: 091-10824
Plt ID: 091-00104
Reviewer: Yvette de los Angeles/EVP
Date: 08/19/99

Uncontrolled Potential Emissions (tons/year)

A. Cyclone

Process	No. of Units	Grain Loading per Actual Standard Cubic Foot of Outlet Air	Air Flow Rate (acfm)	Surface Area (ft^2)	Control Efficiency	Total (tons/yr)
French Extractor	1	0.0025	300.00	254.5	99.50%	1,433.02
Total Emissions Based on Rated Capacity at 8,760 Hours/Year						**1,433.02**

Controlled Potential Emissions (tons/year)

A. Cyclone

Process	No. of Units	Grain Loading per Actual Standard Cubic Foot of Outlet Air	Air Flow Rate (acfm)	Surface Area (ft^2)	Control Efficiency	Total (tons/yr)
French Extractor	1	0.0025	300.00	254.5	99.50%	7.17
Total Emissions Based on Rated Capacity at 8,760 Hours/Year and source controls						**7.17**

Methodology:

Potential Emissions (uncontrolled):
Cyclone (tons/yr) = No. Units * Loading (grains/acf) * Air Flow Rate (acfm) * Surface Area (ft^2) * 1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs * 1/(1-Control Efficiency)

Potential Emissions (controlled):
Cyclone (tons/yr) = No. Units * Loading (grains/acf) * Air Flow Rate (acfm) * Surface Area (ft^2) * 1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs

Compliance with 326 IAC 6-3 (Process Operations)

The following calculations demonstrate compliance with 326 IAC 6-3 (Process Operations) for process weight rates less than or equal to 30 tons per hour:

P = 1.75 tons per hour
limit = 4.1 * (1.75 ^ 0.67) = 5.97 lb/hr or
26.13 ton/yr **WILL COMPLY**