



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: August 25, 2006
RE: BP Products North America- Whiting / 089-23341-00453
FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER-MOD.dot 03/23/06



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Ms. Amy Gannon August 25, 2006
BP Products North America, Inc. Whiting Business Unit
2815 Indianapolis Blvd.
Whiting, Indiana 46394

Re: Minor Source Modification No.
089-23341-00453

Dear Ms. Gannon:

BP Products North America, Inc. Whiting Business Unit applied for a Part 70 permit on September 30, 1996 for a refinery and marketing terminal. An application to modify the source was received on July 11, 2006. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

One (1) sour water storage tank, identified as TK 410, approved for construction in 2006, located at the Sulfur Recovery Unit (SRU), with a nominal storage capacity of 4,351,200 gallons. The tank is equipped with a domed external floating roof. Under the Petroleum Refinery NESHAP (40 CFR 63, Subpart CC), tank TK 410 is a Group 2 storage vessel subject to the requirements for an existing source.

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

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Vickie Cordell, OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027, and ask for Vickie Cordell or extension 3-1782, or dial (317) 233-1782.

Sincerely,

Original signed by

Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

Attachments
vkc

cc: File – Lake County
U.S. EPA, Region V
Lake County Health Department
Hammond Department of Environmental Management
Northwest Regional Office
Air Compliance Section Inspector – Ramesh Tejuja
Compliance Data Section
Administrative and Development
Technical Support and Modeling
Daniel Sajkowski, Whiting Business Unit Leader





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PART 70 MINOR SOURCE MODIFICATION OFFICE OF AIR QUALITY

**BP Products North America, Inc., Whiting Business Unit
2815 Indianapolis Boulevard
Whiting, Indiana 46394**

(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: 089-23341-00453	
Original signed by: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: August 25, 2006

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SECTION A SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the emission units contained in conditions A.1 through A.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)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary refinery and marketing terminal.

Responsible Official:	Whiting Business Unit Leader
Source Address:	2815 Indianapolis Blvd, Whiting, Indiana 46394
Mailing Address:	2815 Indianapolis Blvd, Whiting, Indiana 46394
General Source Phone Number:	219-473-3179
SIC Code:	2911
County Location:	Lake
Source Location Status:	Nonattainment for PM2.5 Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD, and Emission Offset Rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

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

One (1) sour water storage tank, identified as TK 410, approved for construction in 2006, located at the Sulfur Recovery Unit (SRU), with a nominal storage capacity of 4,351,200 gallons. The tank is equipped with a domed external floating roof. Under the Petroleum Refinery NESHAP (40 CFR 63, Subpart CC), tank TK 410 is a Group 2 storage vessel subject to the requirements for an existing source.

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 CONDITIONS

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

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

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

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

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.4 Credible Evidence [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C

GENERAL OPERATION CONDITIONS

Entire Source

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

C.1 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

The 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).

C.3 Lake County Fugitive Particulate Matter Control Requirements [326 IAC 6.8-10-3]

Pursuant to 326 IAC 6.8-10-3 (formerly 326 IAC 6-1-11.1) (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:

- (a) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%), as determined in accordance with the procedures specified in 326 IAC 6.8-10-3(1).
- (b) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%), as determined in accordance with the procedures specified in 326 IAC 6.8-10-3(2).
- (c) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%), as determined in accordance with the procedures specified in 326 IAC 6.8-10-3(3)(A).
- (d) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average, as determined in accordance with the procedures specified in 326 IAC 6.8-10-3(5).
- (e) There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time, as determined in accordance with the procedures specified in 326 IAC 6.8-10-3(6)(A).
- (f) The opacity of fugitive particulate emissions from the in plant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%), as determined in accordance with the procedures specified in 326 IAC 6.8-10-3(6)(B).

- (g) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building, as determined in accordance with the procedures specified in 326 IAC 6.8-10-3(7)(D).
- (h) The PM₁₀ emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity, as determined in accordance with the procedures specified in 326 IAC 6.8-10-3(7)(E).
- (i) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%), as determined in accordance with the procedures specified in 326 IAC 6.8-10-3(8).
- (j) Any facility or operation not specified in 326 IAC 6.8-10-3 shall meet a twenty percent (20%), three (3) minute average opacity standard, as determined in accordance with the procedures specified in 326 IAC 6.8-10-3(9).

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan, submitted on December 11, 1993, as revised on May 28, 2004. In the event that the Permittee revises the Plan, the Permittee shall comply with the revised Plan rather than the May 28, 2004, version.

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

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) The "responsible official" is defined at 326 IAC 2-7-1(34).

C.5 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 (PMPs) when operation begins, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

C.6 Emergency Provisions [326 IAC 2-7-16]

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

IDEM, OAQ:

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

Telephone Number: 317-233-0178 (ask for Compliance Section)

Facsimile Number: 317-233-6865

Northwest Regional Office

Telephone Number: 1-888-209-8892 or (219) 757-0265

Facsimile Number: (219) 757-0267

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality

100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

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

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

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

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

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

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request.

[326 IAC 2-7-11(c)(3)]

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

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

- (a) Compliance testing on new emission units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this approval, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

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

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

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

C.11 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

C.12 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records;
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.
- (f) For the purposes of this Condition:
 - (1) "Exceedance" shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions are, or opacity is, greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement), consistent with any averaging period specified for averaging the results of the monitoring.
 - (2) "Excursion" shall mean a departure from an indicator range established for monitoring under Section D of this permit, consistent with any averaging period specified for averaging the results of the monitoring.

C.13 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 response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.14 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]

- (a) Records of all required monitoring data, reports and support information required by this approval 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 physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- (c) If there is a reasonable possibility that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
 - (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, document and maintain the following records:
 - (A) A description of the project.
 - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
 - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;

- (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1(mm)(2)(A)(iii); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
 - (2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
 - (3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.15 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C- General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
 - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC

2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and

- (2) The emissions differ from the preconstruction projection as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
- (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C- General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
 - (4) Any other information that the Permittee deems fit to include in this report,

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

- (h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

SECTION D.1

FACILITY OPERATION CONDITIONS

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

One (1) sour water storage tank, identified as TK 410, approved for construction in 2006, located at the Sulfur Recovery Unit (SRU), with a nominal storage capacity of 4,351,200 gallons. The tank is equipped with a domed external floating roof. Under the Petroleum Refinery NESHAP (40 CFR 63, Subpart CC), tank TK 410 is a Group 2 storage vessel subject to the requirements for an existing source.

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

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

D.1.1 Storage Tank Record Keeping and Reporting Requirements [326 IAC 8-9]

Pursuant to 326 IAC 8-9-6 (Volatile Organic Liquid Storage Vessels: Record Keeping and Reporting Requirements), the Permittee shall record and submit to IDEM, OAQ a report containing the following information for sour water storage tank TK 410:

- (1) The vessel identification number.
- (2) The vessel dimensions.
- (3) The vessel capacity.

The Permittee shall keep all records as described in (a) through (c) for the life of the vessel.

SECTION E 40 CFR Part 63, Subpart CC – National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries

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

One (1) sour water storage tank, identified as TK 410, approved for construction in 2006, located at the Sulfur Recovery Unit (SRU), with a nominal storage capacity of 4,351,200 gallons. The tank is equipped with a domed external floating roof. Under the Petroleum Refinery NESHAP (40 CFR 63, Subpart CC), tank TK 410 is a Group 2 storage vessel subject to the requirements for an existing source.

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

E.1 General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.640, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1, as specified in Table 6 of 40 CFR Part 63, Subpart CC in accordance with the schedule in 40 CFR Part 63, Subpart CC.

E.2 NESHAP Subpart CC Requirements [40 CFR 63, Subpart CC] [326 IAC 20-16-1]

Pursuant to 40 CFR Part 63, Subpart CC, the Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart CC, which are incorporated by reference as 326 IAC 20-16-1:

Subpart CC—National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries

§ 63.640 Applicability and designation of affected source.

(a) This subpart applies to petroleum refining process units and to related emission points that are specified in paragraphs (c)(5) through (c)(7) of this section that are located at a plant site that meet the criteria in paragraphs (a)(1) and (a)(2) of this section;

(1) Are located at a plant site that is a major source as defined in section 112(a) of the Clean Air Act; and

(2) Emit or have equipment containing or contacting one or more of the hazardous air pollutants listed in table 1 of this subpart.

(c) For the purpose of this subpart, the affected source shall comprise all emission points, in combination, listed in paragraphs (c)(1) through (c)(7) of this section that are located at a single refinery plant site.

(2) All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section;

(l) If an additional petroleum refining process unit is added to a plant site or if a miscellaneous process vent, storage vessel, gasoline loading rack, or marine tank vessel loading operation that meets the criteria in paragraphs (c)(1) through (c)(7) of this section is added to an existing petroleum refinery or if another deliberate operational process change creating an additional Group 1 emission point(s) (as defined in §63.641) is made to an existing petroleum refining process unit, and if the addition or process change is not subject to the new source requirements as determined according to paragraphs (i) or (j) of this section, the requirements in paragraphs (l)(1) through (l)(3) of this section shall apply. Examples of process changes include, but are not limited to, changes in production capacity, or feed or raw material where the change requires construction or physical alteration of the existing equipment or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. For purposes of this paragraph and paragraph (m) of this section, process changes do not include: Process upsets, unintentional temporary process changes, and changes that are within the equipment configuration and operating conditions documented in the Notification of Compliance Status report required by §63.654(f).

(1) The added emission point(s) and any emission point(s) within the added or changed petroleum refining process unit are subject to the requirements for an existing source.

(2) The added emission point(s) and any emission point(s) within the added or changed petroleum refining process unit shall be in compliance with this subpart by the dates specified in paragraphs (l)(2)(i) or (l)(2)(ii) of this section, as applicable.

(i) If a petroleum refining process unit is added to a plant site or an emission point(s) is added to any existing petroleum refining process unit, the added emission point(s) shall be in compliance upon initial startup of any added petroleum refining process unit or emission point(s) or by 3 years after the date of promulgation of this subpart, whichever is later.

(3) The owner or operator of a petroleum refining process unit or of a storage vessel, miscellaneous process vent, wastewater stream, gasoline loading rack, or marine tank vessel loading operation meeting the criteria in paragraphs (c)(1) through (c)(7) of this section that is added to a plant site and is subject to the requirements for existing sources shall comply with the reporting and recordkeeping requirements that are applicable to existing sources including, but not limited to, the reports listed in paragraphs (l)(3)(i) through (l)(3)(vii) of this section. A process change to an existing petroleum refining process unit shall be subject to the reporting requirements for existing sources including, but not limited to, the reports listed in paragraphs (l)(3)(i) through (l)(3)(vii) of this section. The applicable reports include, but are not limited to:

(iii) Reports and notifications required by sections of subpart A of this part that are applicable to this subpart, as identified in table 6 of this subpart.

63.641 Definitions.

All terms used in this subpart shall have the meaning given them in the Clean Air Act, subpart A of this part, and in this section. If the same term is defined in subpart A and in this section, it shall have the meaning given in this section for purposes of this subpart.

Affected source means the collection of emission points to which this subpart applies as determined by the criteria in §63.640.

Emission point means an individual miscellaneous process vent, storage vessel, wastewater stream, or equipment leak associated with a petroleum refining process unit; an individual storage vessel or equipment leak associated with a bulk gasoline terminal or pipeline breakout station classified under Standard Industrial Classification code 2911; a gasoline loading rack classified under Standard Industrial Classification code 2911; or a marine tank vessel loading operation located at a petroleum refinery.

Group 1 storage vessel means a storage vessel at an existing source that has a design capacity greater than or equal to 177 cubic meters and stored-liquid maximum true vapor pressure greater than or equal to 10.4 kilopascals and stored-liquid annual average true vapor pressure greater than or equal to 8.3 kilopascals and annual average HAP liquid concentration greater than 4 percent by weight total organic HAP; a storage vessel at a new source that has a design storage capacity greater than or equal to 151 cubic meters and stored-liquid maximum true vapor pressure greater than or equal to 3.4 kilopascals and annual average HAP liquid concentration greater than 2 percent by weight total organic HAP; or a storage vessel at a new source that has a design storage capacity greater than or equal to 76 cubic meters and less than 151 cubic meters and stored-liquid maximum true vapor pressure greater than or equal to 77 kilopascals and annual average HAP liquid concentration greater than 2 percent by weight total organic HAP.

Group 2 storage vessel means a storage vessel that does not meet the definition of a Group 1 storage vessel.

Hazardous air pollutant or *HAP* means one of the chemicals listed in section 112(b) of the Clean Air Act.

Maximum true vapor pressure means the equilibrium partial pressure exerted by the stored liquid at the temperature equal to the highest calendar-month average of the liquid storage temperature for liquids stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for liquids stored at the ambient temperature, as determined:

(1) In accordance with methods specified in §63.111 of subpart G of this part;

(2) From standard reference texts; or

(3) By any other method approved by the Administrator.

Petroleum refining process unit means a process unit used in an establishment primarily engaged in petroleum refining as defined in the Standard Industrial Classification code for petroleum refining (2911), and used primarily for the following:

- (1) Producing transportation fuels (such as gasoline, diesel fuels, and jet fuels), heating fuels (such as kerosene, fuel gas distillate, and fuel oils), or lubricants;
- (2) Separating petroleum; or
- (3) Separating, cracking, reacting, or reforming intermediate petroleum streams.
- (4) Examples of such units include, but are not limited to, petroleum-based solvent units, alkylation units, catalytic hydrotreating, catalytic hydrorefining, catalytic hydrocracking, catalytic reforming, catalytic cracking, crude distillation, lube oil processing, hydrogen production, isomerization, polymerization, thermal processes, and blending, sweetening, and treating processes. Petroleum refining process units also include sulfur plants.

Process unit means the equipment assembled and connected by pipes or ducts to process raw and/or intermediate materials and to manufacture an intended product. A process unit includes any associated storage vessels. For the purpose of this subpart, process unit includes, but is not limited to, chemical manufacturing process units and petroleum refining process units.

Storage vessel means a tank or other vessel that is used to store organic liquids. Storage vessel does not include:

- (1) Vessels permanently attached to motor vehicles such as trucks, railcars, barges, or ships;
- (2) Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere;
- (3) Vessels with capacities smaller than 40 cubic meters;
- (4) Bottoms receiver tanks; or
- (5) Wastewater storage tanks. Wastewater storage tanks are covered under the wastewater provisions.

Table 6_General Provisions Applicability to Subpart CC \a\

Reference	Applies to subpart CC	Comment
63.1(a)(1)	Yes	
63.1(a)(2)	Yes	
63.1(a)(3)	Yes	
63.1(a)(4)	No	Subpart CC (this table) specifies applicability of each paragraph in subpart A to subpart CC.
63.1(a)(5)–63.1(a)(9)	No	
63.1(a)(10)	No	Subpart CC and other cross-referenced subparts specify calendar or operating day.
63.1(a)(11)	Yes	
63.1(a)(12)	Yes	
63.1(a)(13)	Yes	
63.1(a)(14)	Yes	
63.1(b)(1)	No	Subpart CC specifies its own applicability.
63.1(b)(2)	Yes	
63.1(b)(3)	No	

63.1(c)(1).....	No	Subpart CC explicitly specifies requirements that apply.
63.1(c)(2).....	No	Area sources are not subject to subpart CC.
63.1(c)(3).....	No	
63.1(c)(4).....	Yes	
63.1(c)(5).....	Yes	Except that sources are not required to submit notifications overridden by this table.
63.1(d).....	No	
63.1(e).....	No	
63.2.....	Yes	§ 63.641 of subpart CC specifies that if the same term is defined in subparts A and CC, it shall have the meaning given in subpart CC.
63.3.....	No	Units of measure are spelled out in subpart CC.
63.4(a)(1)-63.4(a)(3).....	Yes	
63.4(a)(4).....	No	Reserved.
63.4(a)(5).....	Yes	
63.4(b).....	Yes	
63.4(c).....	Yes	
63.5(a)(1).....	Yes	Except replace term ``source'' and ``stationary source'' in § 63.5(a)(1) of subpart A with ``affected source.''
63.5(a)(2).....	Yes	
63.5(b)(1).....	Yes	
63.5(b)(2).....	No	Reserved.
63.5(b)(3).....	Yes	
63.5(b)(4).....	Yes	Except the cross-reference to § 63.9(b) is changed to § 63.9(b)(4) and (5). Subpart CC overrides § 63.9 (b)(2) and (b)(3).
63.5(b)(5).....	Yes	
63.5(b)(6).....	Yes	
63.5(c).....	No	Reserved.
63.5(d)(1)(i).....	Yes	Except that the application shall be submitted as soon as practicable before startup but no later than 90 days (rather than 60 days) after the promulgation date of subpart CC

63.5(d)(1)(ii).....	Yes	if the construction or reconstruction had commenced and initial startup had not occurred before the promulgation of subpart CC. Except that for affected sources subject to subpart CC, emission estimates specified in § 63.5(d)(1)(ii)(H) are not required.
63.5(d)(1)(iii).....	No	Subpart CC requires submittal of the notification of compliance status report in § 63.654(e).
63.5(d)(2).....	No	
63.5(d)(3).....	Yes	Except § 63.5(d)(3)(ii) does not apply.
63.5(d)(4).....	Yes	
63.5(e).....	Yes	
63.5(f)(1).....	Yes	
63.5(f)(2).....	Yes	Except that the ``60 days'' in the cross-referenced § 63.5(d)(1) is changed to ``90 days,'' and the cross-reference to (b)(2) does not apply.
63.6(a).....	Yes	
63.6(b)(1).....	No	Subpart CC specifies compliance dates for sources subject to subpart CC.
63.6(b)(2).....	No	
63.6(b)(3).....	Yes	
63.6(b)(4).....	No	May apply when standards are proposed under section 112(f) of the Clean Air Act.
63.6(b)(5).....	No	§ 63.654(d) of subpart CC includes notification requirements.
63.6(b)(6).....	No	
63.6(b)(7).....	No	
63.6(c)(1).....	No	§ 63.640 of subpart CC specifies the compliance date.
63.6(c)(2)-63.6(c)(4).....	No	
63.6(c)(5).....	Yes	
63.6(d).....	No	
63.6(e).....	Yes	Does not apply to Group 2 emission

		points. \b\ The startup, shutdown, and malfunction plan specified in § 63.6(e)(3) is not required for wastewater operations that are not subject to subpart G of this part.
		Except that actions taken during a startup, shutdown, or malfunction that are not consistent with the startup, shutdown, and malfunction plan do not need to be reported within 2 and 7 days of commencing and completing the action, respectively, but must be included in the next periodic report.
63.6(f)(1).....	Yes	
63.6(f)(2)(i).....	Yes	
63.6(f)(2)(ii).....	Yes	Subpart CC specifies the use of monitoring data in determining compliance with subpart CC.
63.6(f)(2)(iii) (A), (B), and (C).	Yes	
63.6(f)(2)(iii)(D).....	No	
63.6(f)(2)(iv).....	Yes	
63.6(f)(2)(v).....	Yes	
63.6(f)(3).....	Yes	
63.6(g).....	Yes	
63.6(h) (1) and (2).....	Yes	
63.6(h) (4) and (5).....	No	Visible emission requirements and timing in subpart CC.
63.6(h)(6).....	Yes	
63.6(h) (7) through (9).....	No	Subpart CC does not require opacity standards.
63.6(i).....	Yes	Except for § 63.6(i)(15), which is reserved.
63.6(j).....	Yes	
63.7(a)(1).....	No	Subpart CC specifies required testing and compliance demonstration procedures.
63.7(a)(2).....	No	Test results must be

		submitted in the notification of compliance status report due 150 days after compliance date, as specified in § 63.654(d) of subpart CC.
63.7(a)(3).....	Yes	
63.7(b).....	No	
63.7(c).....	No	
63.7(d).....	Yes	
63.7(e)(1).....	Yes	
63.7(e)(2).....	Yes	
63.7(e)(3).....	No	Subpart CC specifies test methods and procedures.
63.7(e)(4).....	Yes	
63.7(f).....	No	Subpart CC specifies applicable methods and provides alternatives.
63.7(g).....	No	Performance test reporting specified in § 63.654(d).
63.7(h)(1).....	Yes	
63.7(h)(2).....	Yes	
63.7(h)(3).....	Yes	Yes, except site-specific test plans shall not be required, and where § 63.7(g)(3) specifies submittal by the date the site-specific test plan is due, the date shall be 90 days prior to the notification of compliance status report in § 63.654(d).
63.7(h)(4).....	No	
63.7(h)(5).....	Yes	
63.8(a).....	No	
63.8(b)(1).....	Yes	
63.8(b)(2).....	No	Subpart CC specifies locations to conduct monitoring.
63.8(b)(3).....	Yes	
63.8(c)(1)(i).....	Yes	
63.8(c)(1)(ii).....	No	Addressed by periodic reports in § 63.654(e) of subpart CC.
63.8(c)(1)(iii).....	Yes	
63.8(c)(2).....	Yes	
63.8(c)(3).....	Yes	Except that verification of operational status shall, at a minimum, include completion of the

		manufacturer's written specifications or recommendations for installation, operation, and calibration of the system or other written procedures that provide adequate assurance that the equipment would monitor accurately.
63.8(c)(4)	No	Subpart CC specifies monitoring frequency in § 63.641 and § 63.654(g)(3) of subpart CC.
63.8(c)(5)-63.8(c)(8)	No	
63.8(d)	No	
63.8(e)	No	
63.8(f)(1)	Yes	
63.8(f)(2)	Yes	
63.8(f)(3)	Yes	
63.8(f)(4)(i)	No	Timeframe for submitting request is specified in § 63.654(f)(4) of subpart CC.
63.8(f)(4)(ii)	Yes	
63.8(f)(4)(iii)	No	
63.8(f)(5)(i)	Yes	
63.8(f)(5)(ii)	No	
63.8(f)(5)(iii)	Yes	
63.8(f)(6)	No	Subpart CC does not require continuous emission monitors. Subpart CC specifies data reduction procedures in § 63.654(h)(3).
63.8(g)	No	
63.9(a)	Yes	Except that the owner or operator does not need to send a copy of each notification submitted to the Regional Office of the EPA as stated in § 63.9(a)(4)(ii).
63.9(b)(1)(i)	No	Specified in § 63.654(d)(2) of subpart CC.
63.9(b)(1)(ii)	No	
63.9(b)(2)	No	An initial notification report is not required under subpart CC.
63.9(b)(3)	No	
63.9(b)(4)	Yes	Except that the notification in § 63.9(b)(4)(i)

		shall be submitted at the time specified in § 63.654(d)(2) of subpart CC.
63.9(b)(5).....	Yes	Except that the notification in § 63.9(b)(5) shall be submitted at the time specified in § 63.654(d)(2) of subpart CC.
63.9(c).....	Yes	
63.9(d).....	Yes	
63.9(e).....	No	
63.9(f).....	No	
63.9(g).....	No	
63.9(h).....	No	Subpart CC § 63.652(d) specifies notification of compliance status report requirements.
63.9(i).....	Yes	
63.9(j).....	No	
63.10(a).....	Yes	
63.10(b)(1).....	No	§ 63.644(d) of subpart CC specifies record retention requirements.
63.10(b)(2)(i).....	Yes	
63.10(b)(2)(ii).....	Yes	
63.10(b)(2)(iii).....	No	
63.10(b)(2)(iv).....	Yes	
63.10(b)(2)(v).....	Yes	
63.10(b)(2)(vi)-(ix).....	No	
63.10(b)(2)(x).....	Yes	
63.10(b)(2)(xii)-(xiv).....	No	
63.10(b)(3).....	No	
63.10(c).....	No	
63.10(d)(1).....	No	
63.10(d)(2).....	No	§ 63.654(d) of subpart CC specifies performance test reporting.
63.10(d)(3).....	No	
63.10(d)(4).....	Yes	
63.10(d)(5)(i).....	Yes \b\	Except that reports required by § 63.10(d)(5)(i) may be submitted at the same time as periodic reports specified in § 63.654(e) of subpart CC.
63.10(d)(5)(ii).....	Yes	Except that actions taken during a startup, shutdown, or malfunction that are not consistent with the startup, shutdown, and

malfunction plan do
not need to be
reported within 2
and 7 days of
commencing and
completing the
action,
respectively, but
must be included in
the next periodic
report.

63.10(e)..... No
63.10(f)..... Yes
63.11-63.15..... Yes

-
- \a\ Wherever subpart A specifies ``postmark'' dates, submittals may be sent by methods other than the U.S. Mail (e.g., by fax or courier). Submittals shall be sent by the specified dates, but a postmark is not required.
 - \b\ The plan, and any records or reports of startup, shutdown, and malfunction do not apply to Group 2 emission points.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

PART 70 SOURCE MODIFICATION CERTIFICATION

Source Name: BP Products North America, Inc. – Whiting Business Unit
Source Address: 2815 Indianapolis Boulevard, Whiting, Indiana 46394
Mailing Address: 2815 Indianapolis Boulevard, Whiting, Indiana 46394
Minor Source Modification: 089-23341-00453

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

**PART 70 SOURCE MODIFICATION
EMERGENCY OCCURRENCE REPORT**

Source Name: BP Products North America, Inc. – Whiting Business Unit
Source Address: 2815 Indianapolis Boulevard, Whiting, Indiana 46394
Mailing Address: P.O. Box 710, Whiting, Indiana 46394
Minor Source Modification: 089-23341-00453

This form consists of 2 pages

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- | |
|--|
| <input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) |
| X The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and |
| X The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16. |

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

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

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

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

Indiana Department of Environmental Management Office of Air Quality

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

Source Description and Location

Source Name:	BP Products North America Inc.- Whiting Refinery
Source Location:	2815 Indianapolis Boulevard, Whiting, Indiana 46394
County:	Whiting
SIC Code:	3334, 3352
Operation Permit No.:	T 089-6741-00453
Operation Permit Issuance Date:	Pending
Minor Source Modification No.:	089-23341-00453
Permit Reviewer:	Vickie Cordell

Source Definition

This petroleum refining and marketing company consists of two (2) plants:

- (1) The Whiting Refinery (previously designated 089-00003), located at 2815 Indianapolis Boulevard, Whiting, Indiana 46394; and
- (2) The Marketing Terminal (previously designated 089-00004), located at 2530 Indianapolis Boulevard, Whiting, Indiana 46394.

Since the two (2) plants are located on contiguous or adjacent properties, are under the common control of the same entity, and the Whiting Refinery supports the Marketing Terminal, they will be considered one (1) source.

Existing Approvals

The source submitted an application for a Part 70 Operating Permit on September 30, 1996. At this time, this application is still under review. The source is operating under the following approvals:

- (1) Operation Permit (OP 45-06-92-0467), issued September 7, 1989.
- (2) Operation Permit (OP 45-08-93-0521), issued January 12, 1990.
- (3) Operation Permit (OP 45-08-93-0522), issued January 12, 1990.
- (4) Operation Permit (OP 45-08-93-0523), issued January 12, 1990.
- (5) Operation Permit (OP 45-08-93-0524), issued January 12, 1990.
- (6) Operation Permit (OP 45-08-93-0525), issued January 12, 1990.
- (7) Operation Permit (OP 45-08-93-0526), issued January 12, 1990.
- (8) Operation Permit (OP 45-08-93-0527), issued January 12, 1990.
- (9) Operation Permit (OP 45-08-93-0528), issued January 12, 1990.
- (10) Operation Permit (OP 45-08-93-0529), issued January 12, 1990.
- (11) Operation Permit (OP 45-08-93-0530), issued January 12, 1990.
- (12) Operation Permit (OP 45-08-93-0531), issued January 12, 1990.
- (13) Operation Permit (OP 45-08-93-0532), issued January 12, 1990.
- (15) Operation Permit (OP 45-08-93-0533), issued January 12, 1990.
- (16) Operation Permit (OP 45-08-93-0534), issued January 12, 1990.
- (17) Operation Permit (OP 45-08-93-0535), issued January 12, 1990, amended on February 15, 1993.
- (18) Operation Permit (OP 45-08-93-0536), issued January 12, 1990.
- (19) Operation Permit (OP 45-08-93-0537), issued January 12, 1990.

- (20) Operation Permit (OP 45-08-93-0538), issued January 12, 1990.
- (21) Operation Permit (OP 45-08-93-0539), issued January 12, 1990.
- (22) Operation Permit (OP 45-08-93-0540), issued January 12, 1990.
- (23) Operation Permit (OP 45-08-93-0541), issued January 12, 1990.
- (24) Operation Permit (OP 45-08-93-0542), issued January 12, 1990.
- (25) Operation Permit (OP 45-08-93-0543), issued January 12, 1990.
- (26) Operation Permit (OP 45-08-93-0544), issued January 12, 1990.
- (27) Operation Permit (OP 45-08-93-0545), issued January 12, 1990.
- (28) Operation Permit (OP 45-08-93-0546), issued January 12, 1990, amended on April 14, 1993.
- (29) Operation Permit (OP 45-08-93-0547), issued January 12, 1990.
- (30) Operation Permit (OP 45-08-93-0548), issued January 12, 1990.
- (31) Operation Permit (OP 45-08-93-0549), issued January 12, 1990.
- (32) Operation Permit (OP 45-08-93-0550), issued January 12, 1990.
- (33) Operation Permit (OP 45-08-93-0551), issued January 12, 1990.
- (34) Operation Permit (OP 45-08-93-0552), issued January 12, 1990.
- (35) Operation Permit (OP 45-08-93-0553), issued January 12, 1990.
- (36) Operation Permit (OP 45-08-93-0554), issued January 12, 1990.
- (37) Operation Permit (OP 45-08-93-0555), issued January 12, 1990.
- (38) Operation Permit (OP 45-08-93-0556), issued January 12, 1990.
- (39) Operation Permit (OP 45-08-93-0557), issued January 12, 1990.
- (40) Operation Permit (OP 45-08-93-0558), issued January 12, 1990.
- (41) Operation Permit (OP 45-08-93-0559), issued January 12, 1990.
- (42) Operation Permit (OP 45-08-93-0560), issued January 12, 1990.
- (43) Operation Permit (OP 45-08-93-0561), issued January 12, 1990, amended on October 28, 1992, April 14, 1993, and October 29, 1993.
- (44) Operation Permit (OP 45-08-93-0562), issued January 12, 1990, amended on April 14, 1993.
- (45) Operation Permit (OP 45-08-93-0563), issued January 12, 1990.
- (46) Operation Permit (OP 45-08-93-0564), issued January 12, 1990.
- (47) Operation Permit (OP 45-08-93-0565), issued January 12, 1990.
- (48) Operation Permit (OP 45-08-93-0566), issued January 12, 1990.
- (49) Operation Permit (OP 45-08-93-0567), issued January 12, 1990.
- (50) Operation Permit (OP 45-08-93-0568), issued January 12, 1990.
- (51) Operation Permit (OP 45-08-93-0569), issued January 12, 1990.
- (52) Operation Permit (OP 45-08-93-0570), issued January 12, 1990.
- (52) Operation Permit (OP 45-08-93-0571), issued January 12, 1990.
- (53) Operation Permit (OP 45-08-93-0572), issued January 12, 1990.
- (54) Operation Permit (OP 45-08-93-0573), issued January 12, 1990.
- (55) Operation Permit (OP 45-08-93-0574), issued January 12, 1990.
- (56) Operation Permit (OP 45-08-93-0575), issued January 12, 1990.
- (57) Operation Permit (OP 45-08-93-0576), issued January 12, 1990.
- (58) Operation Permit (OP 45-08-93-0577), issued January 12, 1990.
- (59) Operation Permit (OP 45-08-93-0578), issued January 12, 1990.
- (60) Operation Permit (OP 45-08-93-0579), issued January 12, 1990.
- (61) Registration (no identification number), issued November 13, 1990.
- (62) Registration (CP 089-2134), issued July 31, 1991.
- (63) Registration (CP 089-2123), issued September 12, 1991.
- (64) Registration (CP 089-2417), issued March 5, 1992.
- (65) Construction Permit (CP 089-2055), issued March 12, 1992, amended on August 2, 1993 and February 19, 1999 (089-9931).
- (66) Permit (089-3077), issued May 14, 1993.
- (67) Registration (CP 089-2934), issued June 7, 1993.
- (68) Permit (089-2849), issued July 8, 1993.
- (69) Permit (089-3118), issued November 2, 1993.
- (70) Construction Permit (CP 089-3053), issued March 31, 1994.
- (71) Registration (CP 089-3324), issued April 29, 1994.

- (72) Permit (089-3716) issued May 23, 1994.
- (73) Construction Permit (CP 089-3323), issued December 14, 1994.
- (74) Registration (CP 089-4339), issued April 21, 1995.
- (75) Registration (CP 089-5243), issued February 20, 1996.
- (76) Operation Permit (HDEM 00204), issued March 8, 1996.
- (77) Operation Permit (HDEM 00205), issued March 8, 1996.
- (78) Operation Permit (HDEM 00206), issued March 8, 1996.
- (79) Operation Permit (HDEM 00207), issued March 8, 1996.
- (80) Operation Permit (HDEM 00208), issued March 8, 1996.
- (81) Operation Permit (HDEM 00209), issued March 8, 1996.
- (82) Operation Permit (HDEM 00210), issued March 8, 1996.
- (83) Operation Permit (HDEM 00211), issued March 8, 1996.
- (84) Operation Permit (HDEM 00212), issued March 8, 1996.
- (85) Operation Permit (HDEM 00213), issued March 8, 1996.
- (86) Operation Permit (HDEM 00214), issued March 8, 1996.
- (87) Operation Permit (HDEM 00215), issued March 8, 1996.
- (88) Operation Permit (HDEM 00216), issued March 8, 1996.
- (89) Operation Permit (HDEM 00217), issued March 8, 1996.
- (90) Operation Permit (HDEM 00218), issued March 8, 1996.
- (91) Operation Permit (HDEM 00219), issued March 8, 1996.
- (92) Operation Permit (HDEM 00220), issued March 8, 1996.
- (93) Operation Permit (HDEM 00221), issued March 8, 1996.
- (94) Operation Permit (HDEM 00222), issued March 8, 1996.
- (95) Operation Permit (HDEM 00223), issued March 8, 1996.
- (96) Operation Permit (HDEM 00224), issued March 8, 1996.
- (97) Operation Permit (HDEM 00225), issued March 8, 1996.
- (98) Operation Permit (HDEM 00226), issued March 8, 1996.
- (99) Operation Permit (HDEM 00227), issued March 8, 1996.
- (100) Operation Permit (HDEM 00228), issued March 8, 1996.
- (101) Operation Permit (HDEM 00229), issued March 8, 1996.
- (102) Operation Permit (HDEM 00230), issued March 8, 1996.
- (103) Operation Permit (HDEM 00231), issued March 8, 1996.
- (104) Operation Permit (HDEM 00232), issued March 8, 1996.
- (105) Operation Permit (HDEM 00233), issued March 8, 1996.
- (106) Operation Permit (HDEM 00234), issued March 8, 1996.
- (107) Operation Permit (HDEM 00235), issued March 8, 1996.
- (108) Operation Permit (HDEM 00236), issued March 8, 1996.
- (109) Operation Permit (HDEM 00237), issued March 8, 1996.
- (110) Operation Permit (HDEM 00238), issued March 8, 1996.
- (111) Operation Permit (HDEM 00239), issued March 8, 1996.
- (112) Operation Permit (HDEM 00240), issued March 8, 1996.
- (113) Operation Permit (HDEM 00241), issued March 8, 1996.
- (114) Operation Permit (HDEM 00242), issued March 8, 1996.
- (115) Operation Permit (HDEM 00243), issued March 8, 1996.
- (116) Construction Permit (CP 089-4822), issued April 19, 1996.
- (117) Construction Permit (CP 089-5157), issued July 15, 1996, amended July 19, 1999 (089-10795).
- (118) Permit (089-8275), issued April 30, 1997.
- (119) Permit (089-9003), issued November 19, 1997.
- (120) Permit (089-9484), issued March 4, 1998.
- (121) Permit (089-10499), issued February 15, 1999.
- (122) Permit (089-10419), issued February 23, 1999.
- (123) Minor Source Modification Permit (089-11960), issued June 28, 2000.
- (124) Minor Source Modification Permit (089-11984), issued July 20, 2000.
- (125) Minor Source Modification Permit (089-14239), issued May 14, 2001.

- (126) Significant Source Modification Permit (089-13846), issued June 27, 2001, amended April 15, 2002 (089-15525).
- (127) Exempt Construction and Operation Status Permit (089-14450), issued July 18, 2001.
- (128) Significant Source Modification Permit (089-14210), issued September 12, 2001.
- (129) Significant Source Modification Permit (089-14630), issued November 31, 2001, amended April 24, 2002 (089-15202) and October 18, 2002 (089-15500).
- (130) Minor Source Modification Permit (089-16586), issued January 3, 2003.
- (131) Minor Permit Modification (089-16840), issued May 14, 2003.
- (132) Exemption (089-16960), issued May 27, 2003.
- (133) Minor Permit Modification (089-17230), issued September 10, 2003.
- (134) Significant Source Modification (089-15052), issued November 17, 2003.
- (135) Exemption (089-19041), issued June 22, 2004.
- (136) Significant Permit Modification (089-18588), issued July 15, 2004.
- (137) Significant Source Modification (089-19754), issued October 20, 2004.
- (138) Minor Source Modification (089-21591), issued October 12, 2005.
- (139) Administrative Amendment (089-21879), issued November 18, 2005.
- (140) Minor Source Modification (089-21682), issued December 20, 2005.
- (141) Minor Source Modification (089-22548), issued February 28, 2006.
- (142) Significant Permit Modification (089-22706), issued June 5, 2006.

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM10	maintenance attainment
PM2.5	nonattainment
SO ₂	attainment
NO ₂	attainment
8-hour Ozone	moderate nonattainment
CO	maintenance attainment
Lead	attainment

- (a) On August 7, 2006, a temporary emergency rule took effect redesignating Lake County to attainment for the sulfur dioxide standard, and revoking the one-hour ozone standard in Indiana. The Indiana Air Pollution Control Board has approved a permanent rule revision to incorporate these changes into 326 IAC 1-4-1. The permanent revision to 326 IAC 1-4-1 will take effect prior to the expiration of the emergency rule.
- (b) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Lake County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (c) U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Lake County as nonattainment for PM2.5. On March 7, 2005, the Indiana Attorney General's Office, on behalf of IDEM, filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate

PM10 emissions as a surrogate for PM2.5 emissions pursuant to the requirements of Emission Offset, 326 IAC 2-3.

- (d) Lake County has been classified as attainment or unclassifiable for PM10, SO₂, NO₂, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (e) Since this source is classified as a petroleum refinery, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1), the fugitive PM and VOC emissions are counted toward determination of PSD and Emission Offset applicability.

Source Status

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

Pollutant	Emissions (tons/year)
PM	> 100
PM10	> 100
PM2.5	> 100
SO ₂	> 100
VOC	> 100
CO	> 100
NO _x	> 100

- (a) This existing source is a major stationary source under PSD because an attainment regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the 28 listed source categories.
- (b) This existing source is a major source under Emission Offset because PM2.5, VOC, and NO_x are emitted at a rate of 100 tons per year or more.
- (c) These emissions are based upon the 2004 emissions data submitted to IDEM by BP.

The table below summarizes the potential to emit HAPs for the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

HAPs	Potential To Emit (tons/year)
Single HAPs	>10
TOTAL HAPs	>25

This existing source is a major source of HAPs, as defined in 40 CFR 63.41, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2004 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	560
PM10	540
PM2.5	407
SO ₂	1,515
VOC	1,202
CO	2,148
NO _x	4,584
HAP (Lead)*	7E-3
HAP (Mercury)*	3E-7

* No data provided for other HAPs. Source stated in their application that they are a major source of HAPs.

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a Minor Source Modification application, submitted by BP Products North America Inc. - Whiting Refinery, on July 11, 2006, relating to the construction of the following:

One (1) sour water storage tank, identified as TK 410, approved for construction in 2006, located at the Sulfur Recovery Unit (SRU), with a nominal storage capacity of 4,351,200 gallons. The tank is equipped with a domed external floating roof. Under the Petroleum Refinery NESHAP (40 CFR 63, Subpart CC), tank TK 410 is a Group 2 storage vessel subject to the requirements for an existing source.

Enforcement Issues

There are no pending enforcement actions regarding this proposed modification.

Emission Calculations

The calculations submitted by the applicant have been verified and found to be accurate and correct. These calculations are provided in Appendix A of this document. In addition, the following calculation was used by the applicant to determine the total vapor pressure for the storage tank:

$$P_t = (P_{hc})(X_{hc})$$

where P_t = the total vapor pressure
 P_{hc} = the vapor pressure of the hydrocarbon component
 X_{hc} = the mole fraction of the hydrocarbon component

Therefore,

$$P_t = (11.1 \text{ psia})(0.00687) = 0.076 \text{ psia}$$

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emission unit 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, IDEM, or the appropriate local air pollution control agency.”

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (pounds/day)	Potential To Emit (tons/year)
VOC	15.12	2.76

This source modification is subject to 326 IAC 2-7-10.5(d)(9)(A) because the source is located in Lake County and has the potential to emit twenty-five (25) tons per year of either VOC or NO_x, and the potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants from the project are greater than fifteen (15) pounds per day of VOC but less than twenty-five (25) tons per year. Therefore, the addition of the sour water storage tank is subject to the provisions of 326 IAC 2-7-10.5(d) and (e), and a minor source modification will be issued. Pursuant to 326 IAC 2-7-10.5(e)(3)(A)(ii), the source modification will be issued, including approval to construct and operate sour water storage tank TK 410.

Permit Level Determination - PSD or Emission Offset

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 source modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/Emission Unit	Potential to Emit (tons/year)					
	PM	PM10	SO ₂	VOC	CO	NO _x
Sour Water Storage Tank TK 410				2.76		
Total for Modification				2.76		
Major Source Significant Level				40		

This modification to an existing major stationary source is not major because the emissions increase is less than the Emission Offset major source thresholds. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Federal Rule Applicability Determination

40 CFR 60 (NSPS)

The storage tank is not subject to the requirements of 40 CFR 60, Subpart Kb (New Source Performance Standards for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984) (326 IAC 12) because the stored liquid will be mostly water. In addition, the maximum true vapor pressure for the tank is calculated to be less than 3.5 kilopascals (kPa), as follows:

$$(0.076 \text{ psi})(6.895 \text{ kPa}/1 \text{ psi}) = 0.52 \text{ kPa}$$

40 CFR 61 (NESHAP)

This modification is not subject to the requirements of 40 CFR 61, Subpart J (National Emission Standards for Equipment Leaks (Fugitive Emission Sources) of Benzene) (326 IAC 14) because this rule applies only to pressure relief devices, valves, flanges, and

control systems that are in 'benzene service' (see 40 CFR 61.110 (Applicability and Designation of Sources). Equipment is 'in benzene service' when it '... either contains or contacts a fluid (Liquid or gas) that is at least 10 percent benzene by weight as determined according to the provisions of 40 CFR 61.245(d).' (see 40 CFR 61.111 (Definitions)).

40 CFR 63 (NESHAP)

This source is subject to the requirements of 40 CFR Part 63, Subpart CC (National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries) (326 IAC 20) because this refinery is a major source of hazardous air pollutants (HAPs).

Pursuant to 40 CFR 63.640(l)(1), the sour water storage tank is subject to the requirements for an existing source. Pursuant to 40 CFR 63.641 (Definitions), the stored-liquid maximum true vapor pressure of the sour water storage tank is less than 10.4 kilopascals, and the stored-liquid annual average true vapor pressure is less than 8.3 kilopascals; therefore, the tank is a Group 2 storage vessel. As a Group 2 storage vessel, the tank is not subject to any MACT control requirements pursuant to 40 CFR 63.646.

This modification is subject to the following portions of 40 CFR 63, Subpart CC:

40 CFR 63.640(l)(3)(iii), reports and notifications required by sections of 40 CFR Subpart A that are applicable to Subpart CC, as identified in table 6 of subpart CC.

Portions of 40 CFR 63, Subpart CC not applicable to this modification are not included in the Minor Source Modification Permit.

The equipment leak provisions in 40 CFR 63.648 (Equipment Leak Standards) are not applicable to the new storage tank because the it is not "in organic hazardous air pollutant service"; the sour water does not contain equal to or greater than 5% by weight total organic HAP.

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1, apply to this modification except when otherwise specified in 40 CFR Part 63, Subpart CC.

State Rule Applicability Determination

326 IAC 8-4 (Volatile Organic Compound Rules - Petroleum Sources)

As a petroleum refinery located in Lake County, the entire source is subject to 326 IAC 8-4, and there are no changes due to this modification.

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

The requirements of 326 IAC 8-1-6 are not applicable to the new sour water storage tank because the unit does not have potential VOC emissions greater than 25 tons per year.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

Pursuant to 326 IAC 8-9-1 (Applicability), the storage tank is subject to the record keeping and reporting requirements of 326 IAC 8-9-6(a) and (b) because the tank capacity is greater than thirty-nine (39,000) gallons and the maximum true vapor pressure of the tank is less than 0.5 pound per square inch absolute (psia).

Conclusion and Recommendation

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification **089-23341-00453**. The staff recommend to the Commissioner that this Part 70 Minor Source Modification be approved.

**BP Products North America, Inc.
Whiting Business Unit**

Part 70 Minor Source Modification: 089-23341-00453

**Technical Support Document
Appendix A**

TANKS 4.0

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification
 User Identification: Tank 410-DEFR
 City: Chicago
 State: Indiana
 Company: BP
 Type of Tank: Domed External Floating Roof Tank
 Description: Sour Water Surge Tank

Tank Dimensions
 Diameter (ft): 115.00
 Volume (gallons): 4,351,200.00
 Turnovers: 265.76

Paint Characteristics
 Internal Shell Condition: Light Rust
 Shell Color/Shade: White/White
 Shell Condition: Good

Roof Characteristics
 Type: Pontoon
 Fitting Category: Detail

Tank Construction and Rim-Seal System
 Construction: Welded
 Primary Seal: Mechanical Shoe
 Secondary Seal: Rim-mounted

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	2
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2
Unslotted Guide-Pole Well/Gasketed Sliding Cover	1
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	2
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Gasketed	19
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	24
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1
Roof Drain (3-in. Diameter)/Open	1

Meteorological Data used in Emissions Calculations: Chicago, Illinois (Avg Atmospheric Pressure = 14.38 psia)

TANKS 4.0 Emissions Report - Detail Format Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf Temperatures (deg F)		Liquid Bulk Temp. (deg F)	Vapor Pressures (psia)		Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.		Avg.	Max.					
Sour Water_2	All	50.66	45.76	49.02	11.1000	N/A	N/A	67.0000	92.00	Option 1: VP50 = 11.1 VP60 = 11.1	

TANKS 4.0 Emissions Report - Detail Format Detail Calculations (AP-42)

Annual Emission Calculations	
Rim Seal Losses (lb):	1,633.5250
Seal Factor A (lb-mole/ft-yr):	0.6000
Seal Factor B (lb-mole/ft-yr (mph) ^{0.75}):	0.4000
Average Wind Speed (mph):	0.0000
Seal-related Wind Speed Exponent:	1.0000
Value of Vapor Pressure Function:	0.3533
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	11.1000
Tank Diameter (ft):	115.0000
Vapor Molecular Weight (lb/lb-mole):	67.0000
Product Factor:	1.0000
Withdrawal Losses (lb):	1,896.4510
Annual Net Throughput (gal/yr.):	1,156,372.560
Shell Clingage Factor (psi/1000 sqft):	0.0015
Average Organic Liquid Density (lb/gal):	5.6000
Tank Diameter (ft):	115.0000
Roof Fitting Losses (lb):	1,987.9289
Value of Vapor Pressure Function:	0.3533
Vapor Molecular Weight (lb/lb-mole):	67.0000
Product Factor:	1.0000
Tot. Roof Fitting Loss Fact. (lb-mole/yr):	83.9700
Average Wind Speed (mph):	0.0000

Roof Fitting/Status	Quantity	KFs (lb-mole/yr)	Roof Fitting Loss Factors K _{Fb} (lb-mole/yr (mph) ^{0.75})	m	Losses (lb.)
Access Hatch (24-in. Diam./Boiled Cover, Gasketed	2	1.60	0.00	0.00	75,7577
Automatic Gauge Float Well/Boiled Cover, Gasketed	1	2.80	0.00	0.00	66,2880
Vacuum Breaker (10-in. Diam./Weighted Mech. Actuation, Gask	2	6.20	1.20	0.94	293,5610
Unslotted Guide-Pole Well/Gasketed Sliding Cover	1	25.00	13.00	2.20	591,8563
Gauge-Hatch/Sample Well (6-in. Diam./Weighted Mech. Actuation, Gask.	2	0.47	0.02	0.97	22,2538
Roof Leg (3-in. Diameter)/Adjustable, Portion Area, Gasketed	19	1.30	0.08	0.65	564,7546
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	24	0.53	0.11	0.13	301,1368
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	0.71	0.10	1.00	16,8087
Roof Drain (3-in. Diameter)/Open	1	1.50	0.21	1.70	35,5114

Total Losses (lb): 5,517,9049

TANKS 4.0
Emissions Report - Detail Format
Individual Tank Emission Totals

Annual Emissions Report

Components	Losses(lbs)				Total Emissions
	Rim Seal Loss	Withdrawal Loss	Deck Fitting Loss	Deck Seam Loss	
Sour Water_2	1,633.53	1,896.45	1,987.93	0.00	5,517.90

BP Whiting Refinery
Sour Water Storage Tank - Vapor Pressure Calculations

TANK CONTENTS:	<u>Volume, gal</u>	<u>%</u>
Total Tank Volume	4351200	100
Water	4133640	95
HC	217560	5

Water Properties	
Density, lb/gal	8.3451
MW, lb/lbmol	18.02

MOLE CONTENT:	<u>lbmol</u>	<u>fraction</u>
Xwater	1914297	0.99313
Xhc	13243	0.00687

HC Properties	
Density, lb/gal	5.6
MW, lb/lbmol	92
VP, psia	11.1

MATERIAL VAPOR PRESSURE:
Pt, psia **0.0763**

CALCULATIONS:

$\text{lbmol (hc)} = \text{Volume (gal)} * \text{Density (lb/gal)} / \text{MW (lb/lbmol)}$

$\text{Xhc} = \text{lbmol (hc)} / \text{lbmol (total)}$

$\text{Pt, psia} = \text{Xhc} * \text{VP}_{\text{hc}}$