



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: November 30, 2006
RE: BP Pipeline (North America), Inc. / 141-23614-00560
FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision – Approval

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 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires 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 of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days from 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-AM.dot 03/23/06



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

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Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204-2251
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November 30, 2006

J. Scott Ziegler
BP Pipeline (North America), Inc.
Cantera One, 28100 Torch Parkway
Warrenville, Illinois 60555

Re: Exempt Construction and Operation Status,
141-23614-00560

Dear Mr. Ziegler:

The application from BP Pipeline (North America), Inc., received on September 5, 2006, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following environmental remediation equipment for cleanup of a gasoline spill to be located at BP Pipeline mile post 74.46 Northwest of Fir Road and Ravinia Parkway, Granger, Indiana, 46530 is classified as exempt from air pollution permit requirements:

- (a) Soil vapor extraction (SVE) equipment including one (1) thermal oxidation air treatment unit using natural gas as an auxiliary fuel with a maximum heat input capacity of 1.00 MMBtu per hour.
- (b) One (1) air sparging (AS) system for groundwater.

The following conditions shall be applicable:

- (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:
 - (a) Opacity shall not exceed an average of thirty percent (30%) 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.

This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Pursuant to Contract No. A305-5-65, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Stacie Enoch, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7895 to speak directly to Ms. Enoch. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204-2251, or call (800) 451-6027 and ask for Duane Van Laningham or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original signed by

Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

Attachments

ERG/SE

cc: File – St. Joseph County
St. Joseph County Health Department
Air Compliance Section Inspector – Rick Reynolds
Northern Regional Office
Permit Tracking
Compliance Data Section
Program Planning and Policy – Scott Delaney

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name:	BP Pipeline (North America), Inc.
Source Location:	BP Pipeline mile post 74.46 Northwest of Fir Road and Ravinia Parkway, Granger, Indiana 46530
County:	St. Joseph
SIC Code:	5171
Operation Permit No.:	E141-23614-00560
Permit Reviewer:	ERG/SE

The Office of Air Quality (OAQ) has reviewed an application from BP Pipeline (North America), Inc. relating to the construction and operation of environmental remediation equipment for cleanup of a gasoline leak.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) Soil vapor extraction (SVE) equipment including one (1) thermal oxidation air treatment unit using natural gas as an auxiliary fuel with a maximum heat input capacity of 1.00 MMBtu per hour.
- (b) One (1) air sparging (AS) system for groundwater.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted emission units operating at this source during this review process.

Existing Approvals

This is the first air approval issued to this source.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

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

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 September 5, 2006, with additional information received on September 13, 2006.

Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1 through 3).

Potential to Emit of the Source Before Controls

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

Pollutant	Potential to Emit (tons/year)
PM	0.01
PM10	0.03
SO ₂	2.58E-3
VOC	3.32
CO	0.36
NO _x	0.43

HAPs	Potential to Emit (tons/year)
Total Petroleum Hydrocarbons	3.30
Total HAPs	3.31

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of all pollutants are less than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.
- (c) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in St. Joseph County.

Pollutant	Status
PM10	Attainment
PM 2.5	Attainment
SO ₂	Attainment
NO ₂	Attainment
8-hour Ozone	Nonattainment
CO	Attainment
Lead	Attainment

Note: On August 7, 2006, a temporary emergency rule took effect 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.

- (a) St. Joseph County has been classified as unclassifiable or attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability – Entire Source section.

- (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. St. Joseph 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 nonattainment new source review.
- (c) St. Joseph County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (d) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

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

Pollutant	Emissions (tons/year)
PM	0.01
PM10	0.03
SO ₂	2.58E-3
VOC	3.32
CO	0.36
NO _x	0.43
Single HAP	Less than 3.31
Combination HAPs	3.31

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, the PSD and Emission Offset requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons per year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) The requirements of 40 CFR 60, Subpart J (New Source Performance Standards for Petroleum Refineries) and 40 CFR 60, Subpart GGG (New Source Performance Standards for Equipment Leaks of VOC in Petroleum Refineries) are not included in this exemption for this source, because this source is not a petroleum refinery.

- (b) The requirements of 40 CFR 63, Subpart CC (National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries) and 40 CFR 63, Subpart UUUU (National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units) are not included in this exemption for this source, because this source is not a major source of HAPs and is not a petroleum refinery.
- (c) The requirements of 40 CFR 63, Subpart GGGGG (National Emission Standards for Hazardous Air Pollutants from Site Remediation) are not included in this exemption for this source, because this source is not a major source of HAPs.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This source will be constructed in 2006 in St. Joseph County and is not in one of 28 source categories. The potential to emit all pollutants is less than 250 tons per year; therefore the requirements of 326 IAC 2-2 are not applicable.

326 IAC 2-3 (Emission Offset)

This source will be constructed in 2006 in St. Joseph County. St. Joseph County is designated nonattainment for the 8-hour ozone standard. The potential to emit VOC and NOx from this source is less than 100 tons per year. Therefore, the requirements of 326 IAC 2-3 are not applicable.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)

The requirements of 326 IAC 2-4.1 are not applicable to this source because it is not a major source of HAPs.

326 IAC 2-6 (Emission Reporting)

This source is located in St. Joseph County, is not required to operate under a Part 70 Permit, and does not emit lead into the ambient air at levels equal to or greater five (5) tons per year; therefore, the requirements of 326 IAC 2-6 are not applicable.

326 IAC 5-1-2 (Opacity Limitations)

This source will be located in the area of St. Joseph County that is north of Kern Road and east of Pine Road. 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 the permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) 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.

Unless requested by IDEM, opacity monitoring is not required for this source.

State Rule Applicability – Remediation Equipment

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

This source does not have the potential to emit twenty-five (25) tons or more of VOC per year; therefore, the requirements of 326 IAC 8-1-6 are not applicable.

326 IAC 8-4 (Petroleum Sources)

Although this source is located in St. Joseph County, it is not one of the types of operations described in this rule; therefore, the requirements of 326 IAC 8-4 are not applicable.

Conclusion

The construction and operation of this environmental remediation equipment shall be subject to the conditions of the Exemption No. 141-23614-00560.

**Appendix A: Emission Calculations
Emissions From Natural Gas Combustion**

Company Name: BP Pipeline (North America), Inc.
Address: BP Pipeline mile post 74.46
 Northwest of Fir Road and Ravinia Parkway, Granger, IN 46530
Exemption: 141-23614-00560
Reviewer: ERG/SE
Date: October 16, 2006

Total Heat Input Capacity MMBtu/hr 1.00

Potential Throughput MMscf/yr 8.6

	Pollutant						
	PM*	PM10*	SO ₂	NO _x **	VOC	CO	HAPs
Emission Factor (lbs/MMscf)	1.9	7.6	0.6	100	5.5	84.0	1.89
Potential to Emit (tons/yr)	0.01	0.03	2.58E-03	0.43	0.02	0.36	0.01

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

**Emission factor for NO_x (Uncontrolled) = 100 lb/MMscf.

Emission factors are from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (7/98).

All Emission factors are based on normal firing.

Methodology

Potential Throughput (MMscf/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMscf/1,020 MMBtu

PTE (tons/yr) = Potential Throughput (MMscf/yr) x Emission Factor (lbs/MMscf) x 1 ton/2,000 lbs

**Appendix A: Emission Calculations
VOC and HAP Emissions from Gasoline Spill Cleanup**

Company Name: BP Pipeline (North America), Inc.
Address: BP Pipeline mile post 74.46
 Northwest of Fir Road and Ravinia Parkway, Granger, IN 46530
Exemption: 141-23614-00560
Reviewer: ERG/SE
Date: October 16, 2006

1. Vadose Zone Hydrocarbons

Plume Interval	*Radius (ft)	*Height (ft)	Volume (ft ³)	Volume (m ³)	*BTEX Concentration in Soil (mg/kg)	*Estimated TPH Concentration in Soil (mg/kg)	*Bulk Density of Soil (kg/L)	Estimated Mass of TPH (lbs)
1	7.00	9.00	462	13.1	523	3487	1.5	150
2	10.5	13.0	1039	29.4	458	3053	1.5	296
3	13.5	17.0	1744	49.4	1010	6733	1.5	1097
4	16.5	21.0	2743	77.7	621	4140	1.5	1061
5	18.0	23.0	1817	51.4	379	2527	1.5	429
Total Plume	18.0	23.0	7804	221				3034

The total volume (Vt) of the contaminant plume is equal to the sum of the volumes (V1 through V5) of each interval of the plume, or the following equation:

$$V_t (\text{cuft}) = 1/3 \times \text{radius}^2 (\text{sqft}) \times \pi \times \text{plume height (ft)}$$

The volume of each section of the plume (V1 through V5) is equal to the volume of the plume at that interval minus the volume of the preceding intervals, or the following equation:

$$V_n (\text{cuft}) = 1/3 \times \text{radius}^2 (\text{sqft}) \times \pi \times \text{plume height (ft)} - V_{n-1} - V_{n-2} \dots$$

The total petroleum hydrocarbons (TPH) for each interval is estimated by the following equation:

$$\text{Estimated TPH (mg/kg)} = \text{BTEX (mg/kg)} / 0.15 \quad \text{Assume that BTEX comprises 15\% of total mass of petroleum hydrocarbons.}$$

2. Saturated Zone Hydrocarbons

*Volume of TPH in Saturated Zone (gal)	*Density of TPH (lbs/gal)	Estimated Mass of TPH (lbs)
543	6.56	3564

3. Total Hydrocarbons = Vadose Zone Hydrocarbons + Saturated Zone Hydrocarbons

Total Estimated Mass of TPH (lbs)	Total Estimated Mass of TPH (tons)	Total PTE Hydrocarbons (tons)
6598	3.30	3.30

*These values were provided by the source and are based on sampling, testing, and/or modeling.

Worst Case Assumption: PTE of Total Petroleum Hydrocarbons = PTE of VOC = PTE of HAP

Methodology

Estimated TPH Concentration in Soil (mg/kg) = BTEX Concentration in Soil (mg/kg) x 1 mg Total Petroleum Hydrocarbons (TPH)/0.15 mg BTEX

Volume (cubic meters) = Volume (cubic feet) x 1 cubic meter/35.315 cubic feet

Estimated Mass of TPH (lbs) = Volume (m³) x Estimated TPH Concentration in Soil (mg/kg) x Bulk Density of Soil (kg/L) x 1,000 liters/cubic meter x 1 kg/1,000,000 mg x 2.2 lbs/1 kg

**Appendix A: Emission Calculations
Emissions Summary**

Company Name: BP Pipeline (North America), Inc.
Address: BP Pipeline mile post 74.46
Northwest of Fir Road and Ravinia Parkway, Granger, IN 46530
Exemption: 141-23614-00560
Reviewer: ERG/SE
Date: October 16, 2006

	PM	PM10	SO ₂	NOx	VOC	CO	HAPs
Natural Gas Combustion	0.01	0.03	2.58E-03	0.43	0.02	0.36	0.01
Contaminant Plume	-	-	-	-	3.30	-	3.30
Total	0.01	0.03	2.58E-03	0.43	3.32	0.36	3.31