

**CONSTRUCTION PERMIT  
OFFICE OF AIR MANAGEMENT**

**Amoco Marketing Environmental Services  
7701 West State Road 28  
Frankfort, Indiana**

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

Construction Permit No.: CP-023-9927-05179	
Issued by:  Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM), and presented in the permit application.

### A.1 General Information

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The Permittee owns and operates a portable Enhanced Fluid Recovery System, for groundwater remediation system.

Responsible Official: Thomas Thompson  
Source Address: 7707 West State Road 28, Frankfort, Indiana  
Mailing Address: 38705 Seven Mile Road, Suite 360, Livonia, Michigan, 48152-1056  
SIC Code: 5541  
County Location: Clinton  
County Status: Attainment for all criteria pollutants  
Source Status: Minor for Part 70 Permit Program  
Minor Source, under PSD and Emission Offset Rules

### A.2 Emission Units and Pollution Control Equipment Summary

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This application is for a construction and operation of a portable Enhanced Fluid Recovery System, to extract liquid petroleum hydrocarbons and petroleum hydrocarbon vapors from the groundwater. This system has a maximum capacity of 10 gallons per minute (gpm) of water and 78 cubic feet per minute (cfm) of air flow. A Flame Ionization detector and a meter will be installed to monitor the VOC emissions.

This permit is issued for the following Amoco Service Stations where this groundwater remediation facility will be relocated:

(a) Marion County:

- |     |                              |   |   |
|-----|------------------------------|---|---|
| (1) | Former Amoco Station No. 85  | - | 5304 Rockville Road, Indianapolis               |
| (2) | Former Amoco Station No. 422 | - | 2102 North Post Road, Indianapolis              |
| (3) | Active Amoco Station No. 491 | - | 8045 South Meridian, Indianapolis               |
| (4) | Closed Amoco Station No. 532 | - | 5061 East Washington, Indianapolis              |
| (5) | Active Amoco Station No. 533 | - | 5002 East 56 <sup>th</sup> Street, Indianapolis |
| (6) | Active Amoco Station No. 536 | - | 7602 Pendleton Pike, Indianapolis               |
| (7) | Closed Amoco Station No. 572 | - | 4025 East Southport Road, Indianapolis          |

(b) Clinton County:

- |     |                              |   |                              |
|-----|------------------------------|---|------------------------------|
| (1) | Active Amoco Station No. 150 | - | 201 South Jackson, Frankfort |
|-----|------------------------------|---|------------------------------|

(c) Hendricks County:

- |     |                                 |   |                                     |
|-----|---------------------------------|---|-------------------------------------|
| (1) | Active Amoco Station No. 460    | - | 1051 North Green Street, Brownsburg |
| (2) | Active Amoco Station No. 525    | - | 2068 East Hadley Road, Plainfield   |
| (3) | Former Amoco Station No. 10067- | - | 1805 East Main Street, Plainfield   |

- (d) Porter County:
  - (1) Active Amoco Station No. 513 - 6090 Central Avenue, Portage
  - (2) Active Amoco Station No. 561 - 1501 Calumet Avenue, Valparaiso
- (e) Grant County:
  - (1) Active Amoco Station No. 406 - 1401 West Second Street, Marion
- (f) Scott County:
  - (1) Active Amoco Station No. 511 - I-65 and State Road 56, Scottsburg
- (g) Wayne County:
  - (1) Active Amoco Station No. 504 - 1534 North State Road 1, Cambridge City
- (h) Monroe County:
  - (1) Active Amoco Station No. 107 - 527 East Third Street, Bloomington
- (i) Tippecanoe County:
  - (1) Active Amoco Station No. 514 - 4250 State Road 26, East, Lafayette
- (j) Vanderburgh County:
  - (1) Former Amoco Station No. 450 - Allison Lane and Middle School, Jeffersonville
- (k) Johnson County:
  - (1) Active Amoco Station No. 555 - East Main Street, Greenwood
  - (2) Active Amoco Station No. 10045 - 795 North U.S. 31, Greenwood

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

This stationary source will not be required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- a. It is not a major source, as defined in 326 IAC 2-7-1(22).

## **SECTION B GENERAL CONSTRUCTION AND OPERATION CONDITIONS**

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

### **Construction Conditions [326 IAC 2-1-3.4]**

#### **B.1 General Construction Conditions**

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- (a) The data and information supplied with the application shall be considered part of this permit. Prior to any proposed change in construction which may affect allowable emissions, the change must be approved by the Office of Air Management (OAM).
- (b) This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

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

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

#### **B.3 Revocation of Permits [326 IAC 2-1-9(b)]**

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Pursuant to 326 IAC 2-1-9(b)(Revocation of Permits), the Commissioner may revoke this permit 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 Permit Review Rules [326 IAC 2]**

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Notwithstanding Construction Condition No. B.5, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

#### **B.5 First Time Operation Permit [326 IAC 2-1-4]**

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

- (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application. The facilities covered in the Construction Permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1-7.1(Fees).

## Operation Conditions

### B.6 General Operation Conditions

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- (a) The data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Management (OAM).
- (b) The Permittee shall comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC13-17) and the rules promulgated thereunder.

### B.7 Preventive Maintenance Plan [326 IAC 1-6-3]

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

- (a) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices.
- (b) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.
- (c) Identification of the replacement parts which will be maintained in inventory for quick replacement.

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

### B.8 Permit Revocation [326 IAC 2-1-9]

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

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of 326 IAC 2-1 (Permit Review Rules).

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

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

**B.10 Deviations from Permit Requirements and Conditions**

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- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

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

within ten (10) calendar days from the date of the discovery of the deviation.

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
  - (2) An emergency as defined in 326 IAC 2-7-1(12); or
  - (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.
  - (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

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

- (c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.

**SECTION C**

**SOURCE OPERATION CONDITIONS**

Entire Source
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**Emission Limitation and Standards**

**C.1 Emission Offset and PSD Major Source Status [326 IAC 2-3] and [326 IAC 2-2] [40 CFR 52.21]**

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The source is not a major source under 326 IAC 2-3, Emission Offset and 326 IAC 2-2, Prevention of Significant Deterioration and 40 CFR 52.21.

**C.2 Opacity Limitations [326 IAC 5-1-2]**

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Pursuant to 326 IAC 5-1-2 (Visible Emission Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), the visible emissions shall meet the following, when located in an attainment areas:

- (a) visible emissions shall not exceed an average of 40% opacity in 24 consecutive readings.
- (b) visible emissions shall not exceed 60% opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

When the source is relocated in nonattainment counties (Clark, Dearborn, Dubois (Bainbridge Township), Marion, St. Joseph, Vanderburgh and Vigo) the visible emissions shall meet the following:

- (a) Visible emissions shall not exceed an average of 30% opacity in 24 consecutive readings.
- (b) Visible emissions shall not exceed 60% opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

When the source is relocated in Lake County the visible emissions shall meet the following:

- (a) Visible emissions shall not exceed an average of 20% opacity in 24 consecutive readings.
- (b) Visible emissions shall not exceed 60% opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

## **Compliance Monitoring Requirements**

### **C.3 Compliance Monitoring**

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

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

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

### **C.4 Maintenance of Monitoring Equipment**

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- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

#### C.5 Monitoring Methods [326 IAC 3]

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

### Testing Requirements

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

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

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

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

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

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

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

### Record Keeping and Reporting Requirements

#### C.7 Monitoring Data Availability

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- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing. All observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

#### C.8 General Record Keeping Requirements

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location and available within one (1) hour upon verbal request of an IDEM, OAM, representative, for a minimum of three (3) years. They may be stored elsewhere for the remaining two (2) years providing they are made available within thirty (30) days after written request.
- (b) Records of required monitoring information shall include, where applicable:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;
  - (5) The results of such analyses; and
  - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
  - (1) Copies of all reports required by this permit;
  - (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

#### C.9 General Reporting Requirements

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

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

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

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period.
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports.
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

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

## SECTION D.1

## FACILITY CONDITIONS

A portable Enhanced Fluid Recovery System, to extract liquid petroleum hydrocarbons and petroleum hydrocarbon vapors from the groundwater. This system has a maximum capacity of 10 gallons per minute (gpm) of water and 78 cubic feet per minute (cfm) of air flow. A Flame Ionization detector and a meter will be installed to monitor the VOC emissions.

### Emissions Limitation and Standards

#### D.1.1 Volatile Organic Compounds [ 326 IAC 8-1-6] [326 IAC 2-2] and [326 IAC 2-3]

- (a) The total VOC emissions from this initial location including the other twenty one (21) Amoco Service Stations' groundwater remediation shall be limited to 24 tons per 365 consecutive day period, based on a rolling daily. Compliance with this Operation Condition will make 326 IAC 8-1-6, General Reduction Requirements and 326 IAC 2-2, Prevention of Significant Deterioration not applicable.
- (b) Compliance with the above condition will also make 326 IAC 2-3, Emission Offset requirements not applicable, when the portable Enhanced Fluid Recovery System is relocated to severe nonattainment areas.

#### D.1.2 Portable Source

- (a) This portable source has been approved for the operation in all areas of the State, based on the requirements of 326 IAC 2-2, Prevention of Significant Deterioration and 326 IAC 2-3, the Emission Offset.

- (b) A notice of relocation must be submitted to the Office of Air Management within a week of relocating and shall be deemed approved upon submittal.

#### D.1.3 Preventive Maintenance Plan

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and the Flame Ionization detector.

### **Compliance Determination Requirements**

#### D.1.4 Flame Ionization Detector Continuous Monitoring

- (a) The Flame Ionization detector shall always be in operation when the Enhanced Fluid Recovery System, to extract liquid petroleum hydrocarbons and petroleum hydrocarbon vapors from the groundwater is in operation.
- (b) The Permittee shall calibrate, maintain and operate the Flame Ionization detector emission monitoring system for the measurement of volatile organic compounds. This system must comply with 326 IAC 3-5 (Continuous Monitoring Emissions).
- (c) Calibration of the Flame Ionization detector shall be in accordance with 40 CFR, Part 60 Appendix B, Specifications 8. Calibration shall be performed daily and at any time the detector is shut down and brought back on line.

### **Compliance Monitoring Requirements**

#### D.1.5 Volatile Organic Compounds

The limit of VOC emissions in Condition D.1.1 shall be determined using the readings from the Flame Ionization detector from the twenty two (22) Amoco Service Stations, which measured the air flow rate in dry standard cubic feet per minute (dscf/m), and the VOC concentration in parts per million (ppm) and shall be converted to pounds per unit of time by the following equation:

$$\text{VOC, lb/hr} = \frac{[(\text{ppm}) * (\text{mol. wt, lb/lb-mole}) * (\text{air flow, dry std cubic ft per minute}) * 60 \text{ min/hr}]}{c = 385,260,000 \text{ cu ft/lb-mole}}$$

where c = constant at standard condition at 68<sup>o</sup>F, 29.92 inches HG.

#### D.1.6 Visible Emissions Notations

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

## **Record Keeping and Reporting Requirements**

### **D.1.7 Record Keeping and Reporting Requirements**

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- (a) To document compliance with Conditions D.1.1, readings from the Flame Ionization detector as required in Condition D.1.5 shall be recorded and converted to pounds per unit of time and shall be reported using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.
  
- (b) Daily calibration of the Flame Ionization detector shall be recorded and maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR MANAGEMENT  
 COMPLIANCE DATA SECTION  
 Quarterly Report**

Source Name: Amoco Marketing Environmental Services  
 Source Address: 7701 West State Road 28, Frankfort, Indiana  
 Mailing Address: 38705 Seven Mile Road, Suite 360, Livonia, Michigan 48152-1056  
 Construction Permit No.: CP023-9927-05179  
 Facility: Portable Enhanced Fluid Recovery System for groundwater remediation  
 Parameter: VOC  
 Limits: 24 ton of VOC per 365-day period, rolled on a daily basis for this location and the other 21 Amoco Service Stations

Month \_\_\_\_\_ Year \_\_\_\_\_

Day	Amoco Service Station Location	Air Flow Rate (dscf/m)	VOC Concentration (ppm)	VOC Emission (lb/hr)	VOC Emission (ton/day)	Day	Amoco Service Station Location	Air Flow Rate (dscf/m)	VOC Concentration (ppm)	VOC Emission (lb/hr)	VOC Emission (ton/day)
1						17					
2						18					
3						19					
4						20					
5						21					
6						22					
7						23					
8						24					
9						25					
10						26					
11						27					
12						28					
13						29					
14						30					
15						31					
16											

VOC, lb/hr =  $\frac{[(\text{ppm}) * (\text{mol. wt. lb/lb-mole}) * (\text{air flow, dry std cubic ft per minute}) * 60 \text{ min/hr}]}{c = 385,260,000 \text{ cu ft/lb-mole}}$

Submitted by: \_\_\_\_\_

Signature: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

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

**New Source Review  
 QUARTERLY COMPLIANCE MONITORING REPORT**

Source Name: Amoco Marketing Environmental Services  
 Source Address: 7701 West State Road 28, Frankfort, Indiana  
 Mailing Address: 38705 Seven Mile Road, Suite 360, Livonia, Michigan 48152-1056  
 Construction Permit No.: CP023-9927-05179

**Months:** \_\_\_\_\_ **to** \_\_\_\_\_ **Year:** \_\_\_\_\_

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted quarterly. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".		
9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD		
9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.		
Compliance Monitoring Requirement (eg. Permit Condition D.1.4, D.1.5)	Number of Deviations	Date of each Deviation

Form Completed By: \_\_\_\_\_  
 Title/Position: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## Indiana Department of Environmental Management Office of Air Management

### Technical Support Document (TSP) for New Construction and Operation

#### Source Background and Description

Source Name: Amoco Marketing Environmental Services  
 Source Location: 7701 West State Road 28, Frankfort, Indiana  
 County: Clinton  
 Construction Permit No.: CP-023-9927-05179  
 SIC Code: 5541  
 Permit Reviewer: Aida P. De Guzman

The Office of Air Management (OAM) has reviewed an application from Amoco Marketing Environmental Services relating to the construction and operation of a portable Enhanced Fluid Recovery System, to extract liquid petroleum hydrocarbons and petroleum hydrocarbon vapors from the groundwater. This system has a maximum capacity of 10 gallons per minute (gpm) of water and 78 cubic feet per minute (cfm) of air flow. A Flame Ionization detector and a meter will be installed to monitor the VOC emissions. This permit is issued for the following Amoco Service Stations where this groundwater remediation facility will be relocated:

- (a) Marion County:
- (1) Former Amoco Station No. 85 - 5304 Rockville Road, Indianapolis
  - (2) Former Amoco Station No. 422 - 2102 North Post Road, Indianapolis
  - (3) Active Amoco Station No. 491 - 8045 South Meridian, Indianapolis
  - (4) Closed Amoco Station No. 532 - 5061 East Washington, Indianapolis
  - (5) Active Amoco Station No. 533 - 5002 East 56<sup>th</sup> Street, Indianapolis
  - (6) Active Amoco Station No. 536 - 7602 Pendleton Pike, Indianapolis
  - (7) Closed Amoco Station No. 572 - 4025 East Southport Road, Indianapolis
- (b) Clinton County:
- (1) Active Amoco Station No. 150 - 201 South Jackson, Frankfort
- (c) Hendricks County:
- (1) Active Amoco Station No. 460 -
  - (2) Active Amoco Station No. 525 - 2068 East Hadley Road, Plainfield
  - (3) Former Amoco Station No. 10067- 1805 East Main Street, Plainfield
- (d) Porter County:
- (1) Active Amoco Station No. 513 - 6090 Central Avenue, Portage
  - (2) Active Amoco Station No. 561 - 1501 Calumet Avenue, Valparaiso

(e) Grant County:

(1) Active Amoco Station No. 405 - 1401 West Second Street, Marion

(f) Scott County:

(1) Active Amoco Station No. 511 - I-65 and State Road 56, Scottsburg

(g) Wayne County:

(1) Active Amoco Station No. 504 - 1534 North State Road 1, Cambridge City

(h) Monroe County:

(1) Active Amoco Station No. 107 - 527 East Third Street, Bloomington

(i) Tippecanoe County:

(1) Active Amoco Station No. 514 - 4250 State Road 26, East, Lafayette

(j) Vanderburgh County:

(1) Former Amoco Station No. 450 - Allison Lane and Middle School, Jeffersonville

(k) Johnson County:

(1) Active Amoco Station No. 555 - East Main Street, Greenwood  
(2) Active Amoco Station No. 555 - 795 North U.S. 31, Greenwood

**Stack Summary**

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
001	Water remediation	9.5	0.218	78	180

**Recommendation**

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

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

An application for the purposes of this review was received on July 9, 1998, with additional information received on July 29, 1998.

### Emissions Calculations

(a) VOC Emissions:

The portable Enhanced Fluid recovery system will be relocated to different Amoco Service Stations.

Handex was commissioned by Amoco to do a study and VOC analysis on the different Amoco Service Stations.

The potential VOC emission depends upon the gasoline contamination present in the groundwater. It will take a maximum of 600 hours total to clean-up the gasoline contaminated groundwater from this initial location including the other 21 Amoco Stations. Therefore, the potential emissions is based on the following number of hours:

$$8 \text{ hr/day/station} * 22 \text{ stations} * 3 \text{ days/yr} = 528 \text{ hours/yr or rounded-off to } 600 \text{ hours}$$

The worst case VOC emissions at 279.6 pound per hour was determined from the Amoco Station 10067 in Plainfield. Therefore, this will be utilized in the calculations.

$$\begin{aligned} \text{VOC Emissions} &= 279.6 \text{ lb/hr} * 600 \text{ hrs/yr} * \text{ton}/2000 \text{ lb} \\ &= 83.7 \text{ ton/yr} \end{aligned}$$

(b) HAPs Emissions:

HAP	Rate of Emissions (lb/hr)	Rate of Emissions (ton/yr)
Benzene	4.56	1.4
Methyl tert-butyl ether	22.8	6.8
Ethylbenzene	3.04	0.91
Toluene	7.60	2.3
o-Xylene	3.55	1.1
m-Xylene	3.55	1.1
p-Xylene	3.55	1.1
TOTAL	48.65	14.6

### Total Potential and Allowable Emissions

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

Pollutant	Allowable Emissions (tons/year)	Potential Emissions (tons/year)
Particulate Matter (PM)	0.0	0.0
Particulate Matter (PM10)	0.0	0.0
Sulfur Dioxide (SO <sub>2</sub> )	0.0	0.0
Volatile Organic Compounds (VOC)	83.7	83.7
Carbon Monoxide (CO)	0.0	0.0
Nitrogen Oxides (NO <sub>x</sub> )	0.0	0.0
Single Hazardous Air Pollutant (HAP)	6.8	6.8
Combination of HAPs	14.6	14.6

- (a) The potential emissions before control are equivalent to the allowable emissions, therefore, either the potential or the allowable emissions before control are used for the permitting determination.
- (b) Allowable emissions (as defined in the Indiana Rule) of volatile organic compounds (VOC) emissions are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.

### County Attainment Status

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Clinton County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Clinton County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

### Portable Source

- (a) Initial Location  
This is a portable source, and its initial location will be in 7701 West State Road 28, Frankfort, Indiana.
- (b) PSD and Emission Offset Requirements  
The emissions from this portable source were reviewed both under the requirements of the Prevention of Significant Deterioration (PSD), 326 IAC 2-2, 40 CFR 52.21, and Emission Offset, 326 IAC 2-3.

**Source Status**

New Source PSD Definition (based on the VOC limit to avoid the requirements under the 326 IAC 8-1-6 (General Reduction):

Pollutant	Emissions (ton/yr)
PM	0.0
PM10	0.0
SO <sub>2</sub>	0.0
VOC	24.0
CO	0.0
NO <sub>x</sub>	0.0
Single HAP	2.0
Combination HAPs	4.2

The new source VOC emissions is limited to 24 tons per year to avoid the requirements of 326 IAC 8-1-6 General Reduction Requirements. Using the worst case emissions from the test results, the operating hours is limited as follows:

$$\begin{aligned} \text{Limit in the Hours of Operation} &= \frac{24 \text{ tons/yr} * 8760 \text{ hours/yr}}{83.7 \text{ tons/yr}} \\ &= 172 \text{ hrs/yr} \end{aligned}$$

Since the VOC is limited from 83.7 tons/yr to 24 tons/yr, the HAPs emissions are also scaled down as follows:

$$\begin{aligned} \text{Single HAP Scaled Down Emissions} &= \frac{24 \text{ tons}^{\text{VOC}}/\text{yr} * 6.8 \text{ ton}^{\text{HAP}}/\text{yr}}{83.7 \text{ ton}^{\text{VOC}}/\text{yr}} \\ &= 2.0 \text{ tons}^{\text{HAP}}/\text{yr} \end{aligned}$$

$$\begin{aligned} \text{Combined HAPs Scaled Down Emissions} &= \frac{24 \text{ tons}^{\text{VOC}}/\text{yr} * 14.6 \text{ ton}^{\text{HAP}}/\text{yr}}{83.7 \text{ ton}^{\text{VOC}}/\text{yr}} \\ &= 4.2 \text{ tons}^{\text{HAP}}/\text{yr} \end{aligned}$$

- (a) This new source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

**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/year.

This is the first air approval issued to this source.

### **Federal Rule Applicability**

- (a) **New Source Performance Standards:**  
There are no New Source Performance Standards (326 IAC 12) and 40 CFR Part 60 applicable to this facility.
- (b) **National Emission Standards for Hazardous Air Pollutants:**  
There are no NESHAPs, 40 CFR Part 63 applicable to this facility.

### **State Rule Applicability**

#### 326 IAC 2-6 (Emission Reporting)

This facility is not subject to 326 IAC 2-6 (Emission Reporting), because the source will not emit more than 10 tons of VOC per year when relocated to a nonattainment county.

#### 326 IAC 8 (Volatile Organic Sources)

No rule in 326 IAC 8 applies to the proposed ground water remediation system, because it does not fit any of the source categories mentioned in the rules.

#### 326 IAC 8-1-6 (General Reduction Requirements)

Since no 326 IAC 8 rule apply to this facility, 326 IAC 8-1-6 will apply, because its potential VOC emissions is more than 25 tons per year. The source however, requested a limit of 24 tons per year, Therefore, this rule will not apply to the facility in this case.

### **Air Toxic Emissions**

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

- (a) This new source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Amendments to Clean Air Act.
- (b) See detailed air toxic calculations on page 5 through 6 of this TSP.

### **Conclusion**

The construction of this Enhanced Fluid Recovery System for ground water remediation will be subject to the conditions of the attached proposed **Construction Permit No. CP-023-9927-05179**.

## Indiana Department of Environmental Management Office of Air Management

### Addendum to the Technical Support Document for New Construction and Operation

Source Name: Amoco Marketing Environmental Services  
Source Location: 7701 West State Road 28, Frankfort, Indiana  
County: Clinton  
Construction Permit No.: CP-023-9927-05179  
SIC Code: 5541  
Permit Reviewer: Aida P. De Guzman

On August 21, 1998, the Office of Air Management (OAM) had a notice published in The Times, Inc., Frankfort, Indiana, stating that Amoco Marketing Environmental Services had applied for a construction permit to construct and operate a portable Enhanced Fluid Recovery System, to extract liquid petroleum hydrocarbons and petroleum hydrocarbon vapors from the groundwater. This system has a capacity of 10 gallons per minute (gpm) of water and 78 cubic feet per minute of air flow with a Flame Ionization detector and a meter to monitor the VOC emissions. The notice also stated that OAM proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Handex in behalf of Amoco had requested a delay in the submission of the proposed permit comments, until September 23, 1998. The summary of the comments and corresponding responses is as follows (changes are bolded for emphasis):

- Comment 1: Amoco Marketing Environmental Services  
Section B.3, page 6 of the proposed permit indicates that the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of the approval or if construction is suspended for a continuous period of one (1) year or more. How would this condition apply to the Enhanced Fluid Recovery System which is already constructed.
- Response 1: As defined in rule 326 IAC 1-2-21 "construction" means fabrication, erection or installation of air pollution control equipment or a facility at the location intended for its use". For this operation, we would focus on the erection or installation portion of the definition.
- Comment 2: Section C.2 Opacity Limitation on page 9 of the proposed permit. Who is qualified to obtain opacity measurement?
- Response 2: This condition requires EPA Method 9 for opacity reading. During compliance inspection, the OAM inspector will perform Method 9 to determine if the source is in compliance with the limit in 326 IAC 5-1-2. However, the daily compliance of condition C.2 Opacity Limitation is satisfied by Condition D.1.6 Daily Visible Emissions Notation.
- Comment 3: The data in the application were based on actual testing done during the source experimental trials. Does Section C. 6 Performance Testing on page 10 of the proposed permit still require the source to perform additional testing prior to permit approvals?

- Response 3: No further testing will be required for the source at this time, since actual tests were already done during the experimental trials. Section C.6 will remain, although the condition may not apply at this time. It is possible that the language may be applicable in the future. To eliminate a lengthy addition to the permit in the future, the wording will be kept for now.
- Comment 4: Is the Flame Ionization detector adequate for the analyses mentioned in Section C.8 (b)(1) and (4), General Record Keeping Requirements on page 11 of the proposed permit?
- Response 4: Correct, since a Flame Ionization is used to demonstrate compliance with the VOC emissions limit, monitoring information for this unit must be recorded.
- Comment 5: Section C.8 (c)(2) indicates record keeping of all original strip chart recordings, is it necessary for the Flame Ionization to have a strip chart capability?
- Response 5: Not necessarily in this case, since the groundwater remediation is not a permanent operation. The source can do a manual reading every ten (10) minutes of the Flame Ionization.
- Comment 6: The address for the Active Amoco Station No. 460 in Section A.2 (c)(1) Emission Units and Pollution Control Equipment Summary on page 4 of the proposed permit was omitted. The address is 1051 North Green Street, Brownsburg, Indiana.
- Response 6: The proposed permit is revised to reflect the correct address for the Active Amoco Station No. 460.
- Comment 7: The Amoco facility identified as "Active Amoco Station No. 405" in Section A.2 (e)(1), Emission Units and Pollution Control Equipment Summary in the proposed permit should be "406".
- Response 7: The proposed permit is revised to reflect the correct station number.
- Comment 8: Section A.2 (k)(2), Emission Units and Pollution Control Equipment Summary on page 5 of the proposed permit should read Active Amoco Station No. "10045" instead of "555".
- Response 8: The proposed permit is revised to reflect the correct station number.

Upon further review, OAM has made the following changes (changes are bolded for emphasis:

1. *Since the Portable Enhanced Fluid Recovery System is mounted on a truck and is operational when the truck's engine is on, the Visible Emission Notation condition is added in the permit as follows and numbered as D.1.6. Subsequent condition will be renumbered accordingly.*

#### D.1.6 Visible Emissions Notations

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- (a) Daily visible emission notations of the truck stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
  - (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
  - (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.
2. Condition D.1.4 is revised, since the referenced rule 326 IAC 3-1 in the proposed permit is incorrect. The correct citation is 326 IAC 3-5.
3. Condition D.1.5 on page 14 of the proposed permit is revised to include the following parameters: the flow rate of the air exhaust, and the VOC concentration in ppm. The revision is as follows:

#### D.1.5 Volatile Organic Compounds

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The limit of VOC emissions in Condition D.1.1 shall be determined using the **readings** from the Flame Ionization detector ~~measurements~~ from the twenty two (22) Amoco Service Stations, **which measured the air flow rate in dry standard cubic feet per minute (dscf/m), and the VOC concentration** in parts per million (ppm) and shall be converted to pounds per unit of time by the following equation:

$$\text{VOC, lb/hr} = \frac{[(\text{ppm}) * (\text{mol. wt. lb/lb-mole}) * (\text{air flow, dry std cubic ft per minute}) * 60 \text{ min/hr}]}{c = 385,260,000 \text{ cu ft/lb-mole}}$$

where c = constant at standard condition at 68°F, 29.92 inches HG.

Mail to: Permit Administration & Development Section  
Office Of Air Management  
100 North Senate Avenue  
P. O. Box 6015  
Indianapolis, Indiana 46206-6015

Thomas Thompson  
38705 Seven Mile Road, Suite 360  
Livonia, Michigan 48152-1056

**Affidavit of Construction**

I, \_\_\_\_\_, being duly sworn upon my oath, depose and say:  
(Name of the Authorized Representative)

1. I live in \_\_\_\_\_ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of \_\_\_\_\_ for \_\_\_\_\_.  
(Title) (Company Name)
3. By virtue of my position with \_\_\_\_\_, I have personal  
(Company Name)  
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of \_\_\_\_\_.  
(Company Name)
4. I hereby certify that Amoco Marketing Environmental Services, 7707 West State Road 28, Frankfort, Indiana has constructed the portable Enhanced Fluid Recovery System, to extract liquid petroleum hydrocarbons and petroleum hydrocarbon vapors from the groundwater. This system has a maximum capacity of 10 gallons per minute (gpm) of water and 78 cubic feet per minute (cfm) of air flow. A Flame Ionization detector and a meter will be installed to monitor the VOC emissions. in conformity with the requirements and intent of the construction permit application received by the Office of Air Management on July 29, 1998 and as permitted pursuant to **Construction Permit No. CP-023-9927, Plant ID No. 023-05179** issued on \_\_\_\_\_
5. Additional (?operations/facilities) were constructed/substituted as described in the attachment to this document and were not made in accordance with the construction permit. (Delete this statement if it does not apply.)

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

STATE OF INDIANA)  
)SS

COUNTY OF \_\_\_\_\_ )

Subscribed and sworn to me, a notary public in and for \_\_\_\_\_ County and State of  
Indiana on this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_.

My Commission expires: \_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name (typed or printed)