



Joseph E. Kernan  
Governor

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Commissioner

September 15, 2004

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(800) 451-6027  
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TO: Interested Parties / Applicant

RE: Environmental Incorporated / 091-19680-00130

FROM: Paul Dubenetzky  
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 9/16/03

September 15, 2004

Mr. Thomas Stevenson  
Environmental Incorporated  
2502 Inverness Drive  
Valparaiso, IN 46383

Dear Mr. Stevenson:

Re: Exempt Construction and Operation Status,  
**091-19680-00130**

The application from Environmental Incorporated, received on July 12, 2004, 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, to be located at 1111 West Garfield Street in Michigan City, Indiana 46360, is classified as exempt from air pollution permit requirements:

one (1) soil vapor extraction system

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.

Sincerely,

Original Signed by  
Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

SDF

cc: File - LaPorte County  
LaPorte County Health Department  
Air Compliance - Rick Massoels  
Northwest Regional Office  
Permit Tracking  
Technical Support and Modeling - Michele Boner  
Compliance Data Section - Karen Nowak

# Indiana Department of Environmental Management Office of Air Quality

## Technical Support Document (TSD) for an Exemption

### Source Background and Description

Source Name: Environmental Incorporated  
Source Location: 1111 West Garfield Street, Michigan City, Indiana 46360  
County: LaPorte  
Exemption No.: 091-19680-00130  
Permit Reviewer: SDF

### Request

On July 12, 2004, Environmental Incorporated submitted an application to construct and operate one (1) soil vapor extraction system.

The emissions generated by the proposed extraction system are the extraction system volatile organic compounds (VOC) and hazardous air pollutant (HAP) emissions.

The source VOC, single HAP, and combined HAP UPTE are estimated to be 0.16, 0.06, and 0.14 ton/yr respectively. Therefore, the source shall be issued an exemption pursuant to 326 IAC 2-1.1-3(d)(1) which states that all new sources with VOC, single HAP, and combined HAP UPTE less than 10, 1, and 2.5 tons per year, respectively, qualify for exempt status.

Therefore, the source shall be issued an exemption letter.

### Existing Approvals

The proposed exemption will be the first source approval.

### Recommendation

The staff recommends to the Commissioner that the exemption be approved. This recommendation is based on information derived from the application.

### Emission Calculations

#### 1. Source Unrestricted Potential to Emit (UPTE):

As previously stated, the unrestricted potential to emit (UPTE) due to the proposed extraction system are the extraction system VOC and HAP emissions.

The following calculations determine the extraction system VOC, single HAP, and combined HAP UPTE based on the maximum estimated concentrations (ug/m<sup>3</sup>), the maximum flow rate at each well, a total of 47 wells, emissions before controls, and 8760 hours of operation.

VOC:

The maximum VOC concentration at each well, based on the test data supplied by the applicant, is determined to be 29,422.08 ug/m3.

$$29422.08 \text{ ug/m}^3 \text{ well} * 1\text{E-}6 \text{ gm/ug} * 1 \text{ lb/454 gm} * 0.19822 \text{ m}^3/\text{min} * 60 \text{ min/hr} * 8760 \text{ hr/yr} * 47 \text{ wells} = 317.34 \text{ lb VOC/yr}$$

$$317.34 \text{ lb VOC/yr} * 1/2000 \text{ ton VOC/lb VOC} = 0.16 \text{ tons VOC/yr}$$

HAP:

$$\text{ug/m}^3 \text{ well} * 1\text{E-}6 \text{ gm/ug} * 1 \text{ lb/454 gm} * 0.19822 \text{ m}^3/\text{min} * 60 \text{ min/hr} * 8760 \text{ hr/yr} * 47 \text{ wells} * 1/2000 \text{ ton/lb} = \text{ton HAP/yr}$$

| Pollutant           | Concentration (ug/m3) | Emissions (lb/yr) | Emissions (tons/yr) |
|---------------------|-----------------------|-------------------|---------------------|
| Carbon Disulfide    | 13.9                  | 0.15              | neg.                |
| m,p-xylene          | 4770                  | 51.45             | 0.03                |
| o-xylene            | 4640                  | 50.05             | 0.03                |
| Hexane              | 2330                  | 25.13             | 0.01                |
| Methylene Chloride  | 42.4                  | 0.46              | neg.                |
| Toluene             | 10500                 | 113.25            | <b>0.06</b>         |
| Ethylbenzene        | 2670                  | 28.80             | 0.01                |
| All Others Combined | 66.83                 | 0.72              | neg.                |
| <b>Total</b>        |                       |                   | <b>0.14</b>         |

The VOC UPTE is determined to 0.16 ton/yr. The worst case single and combined HAP UPTE are determined to be 0.06 and 0.14 ton/yr, respectively.

**Emissions After Controls:**

The emissions are uncontrolled. Therefore, the emissions after controls equal the estimated emissions before controls.

**Potential To Emit**

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

This table reflects the PTE before controls based on the above estimated emissions calculations. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

| Pollutant       | Potential To Emit (tons/year) |
|-----------------|-------------------------------|
| PM              | -                             |
| PM-10           | -                             |
| SO <sub>2</sub> | -                             |
| VOC             | 0.16                          |
| CO              | -                             |
| NO <sub>x</sub> | -                             |

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

| Pollutant             | Potential To Emit (tons/year) |
|-----------------------|-------------------------------|
| Worst Case Single HAP | 0.06                          |
| Combined HAP          | 0.14                          |

The source VOC, single HAP, and combined HAP UPTE are estimated to be 0.16, 0.06, and 0.14 ton/yr respectively. Therefore, the source shall be issued an exemption pursuant to 326 IAC 2-1.1-3(d)(1) which states that all new sources with VOC, single HAP, and combined HAP UPTE less than 10, 1, and 2.5 tons per year, respectively, qualify for exempt status.

### County Attainment Status

The source is located in LaPorte county.

| Pollutant        | Status        |
|------------------|---------------|
| PM <sub>10</sub> | attainment    |
| SO <sub>2</sub>  | attainment    |
| NO <sub>2</sub>  | attainment    |
| 1-hour Ozone     | attainment    |
| 8-hour Ozone     | nonattainment |
| CO               | attainment    |
| Lead             | attainment    |

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. LaPorte County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for nonattainment new source review.
- (b) LaPorte County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

### New Source Status

New Source Definition (emissions based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

| Unit                 | PM<br>(tons/yr) | PM10<br>(tons/yr) | SO2<br>(tons/yr) | NOx<br>(tons/yr) | VOC<br>(tons/yr) | CO<br>(tons/yr) | Single<br>HAP<br>(tons/yr) | Comb. HAPs<br>(tons/yr) |
|----------------------|-----------------|-------------------|------------------|------------------|------------------|-----------------|----------------------------|-------------------------|
| Extraction System    | -               | -                 | -                | -                | 0.16             | -               | 0.04                       | 0.14                    |
| PSD Major Levels     | 250             | 250               | 250              | 250              | 100              | 250             | -                          | -                       |
| Part 70 Major Levels | -               | 100               | 100              | 100              | 100              | 100             | 10                         | 25                      |

- (a) This new source is not a major PSD stationary source because no regulated pollutant emissions are greater than their respective major source levels and the source is not one of the 28 listed source categories.
- (b) This new source is not a Title V major stationary source because no criteria pollutant potential to emit (PTE) exceeds the applicable level of 100 tons/yr, no single hazardous air pollutant PTE exceeds the applicable levels of 10 tons/yr, and the combined hazardous air pollutant PTE does not exceed the applicable level of 25 tons/yr.

**Federal Rule Applicability**

**(a) New Source Performance Standards (NSPS):**

There are no New Source Performance Standards (40 CFR 60 and 326 IAC 12) that apply to the units of the proposed extraction system.

**(b) National Emissions Standards for Hazardous Air Pollutants:**

40 CFR 63, Subpart GGGGG, National Emission Standards for Hazardous Air Pollutants: Site Remediation:

The requirements of 40 CFR 63, Subpart GGGGG do not apply to the proposed extraction system pursuant to 63.7881(a)(3) because the proposed extraction system generates single and combined HAPs less than the single and combined HAP major source levels of 10 and 25 tons per year, respectively.

**State Rule Applicability - Entire Source**

**(a) 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)):**

The source is not one of the 28 listed source categories and there are no criteria pollutant emissions that exceed the PSD major source applicable levels.

Therefore, the PSD requirements under 326 IAC 2-2 do not apply.

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

The single and combined HAP emissions are less than the respective applicable levels of 10 and 25 tons per year.

Therefore, the requirements of 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) do not apply.

### **State Rule Applicability - Extraction System**

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

The proposed extraction system is not subject to the requirements of 326 IAC 8-1-6 because the VOC UPTE (0.16 ton/yr) is less than the applicable level of 25 tons/yr.

#### **Conclusion**

The proposed extraction system shall be constructed and operated according to the requirements specified in Exemption 091-19680-00130.