



*Mitchell E. Daniels, Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
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TO: Interested Parties / Applicant  
DATE: August 14, 2006  
RE: Superior Environmental Remediation / 039-23041-00552  
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.*

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Mitchell E. Daniels, Jr.  
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Chris Schoo  
Superior Environmental Remediation, Inc.  
1516 North Main Street  
Mishawaka, Indiana 46545

August 14, 2006

Dear Mr. Schoo:

Re: Exempt Construction and Operation Status,  
039-23041-00552

The application from Superior Environmental Remediation, Inc. received on August 22, 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 groundwater treatment source, to be located at 914 E. Waterford St., Wakarusa, Indiana 46573, is classified as exempt from air pollution permit requirements:

The source consists of the following unit:

- (a) Two (2) Vapor Extraction systems, identified as SVE-1 and SVE-2 each controlled with a carbon adsorber, and venting through vents #1 and #2, respectively. Each system consists of:
  - (1) Two (2) vapor extraction wells.
  - (2) One (1) 55 gallon moisture separator.
  - (3) One (1) vacuum pump.
  - (4) One (1) 750 pound carbon absorber.
- (b) The following exempt emission units (326 IAC 2-1.1-3):
  - (1) One groundwater treatment system, identified as GW-1 consisting of:
    - (A) Two (2) recovery wells.
    - (B) One (1) 500 gallon water holding tank.
    - (C) One (1) 750 pound activated carbon treatment tank.
    - (D) One (1) 4000 gallon water storage tank.

The following conditions shall be applicable:

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



- (1) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (2) 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.

(b) HAP Limit [326 IAC 2-4.1]

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The potential to emit of any single HAP from SVE-1, SVE-2 and GW-1 is less than ten (10) tons per twelve consecutive month period. The potential to emit of all HAPs from SVE-1, SVE-2, and GW-1 is less than twenty-five (25) tons per twelve (12) consecutive month period. Any change or modification which may increase the PTE above these levels shall require approval from IDEM, OAQ prior to making the change.

This existing source has submitted their FESOP renewal application for (039-21655-00552) on August 22, 2005. During the review process, On May 3, 2006, the Permittee requested a withdrawal of their FESOP renewal application that was received by IDEM OAQ on August 22, 2005. Tests were conducted at the source indicating the remediation of the subsurface soils at the facility had been completed, leaving only groundwater remediation and treatment to continue and emissions would be at a lower level. A FESOP is no longer required and an exemption is the proper level of approval for 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  
Kathy Moore, Section Chief  
Permits Branch  
Office of Air Quality

KM/tlf

cc: File - Porter County  
Elkhart County Health Department  
Air Compliance – Tony Pelath  
Northern Regional Office  
Permit Tracking  
Compliance Data Section

# Indiana Department of Environmental Management Office of Air Quality

## Technical Support Document (TSD) for Exempt Emission Units

### Source Background and Description

Source Name: Superior Environmental Remediation, Inc.  
Source Location: 914 E. Waterford St., Wakarusa, Indiana 46573  
County: Elkhart  
Source Description: Groundwater Remediation  
Operation Permit No.: 039-23041-00552  
Permit Reviewer: Teresa Freeman

The Office of Air Quality (OAQ) has reviewed an application from Superior Environmental Remediation, Inc. relating to the operation of a groundwater remediation system.

### Source History

The Superior Environmental Remediation, Inc. was issued FESOP Permit No. F039-13710-00552 on June 13, 2001.

On May 3, 2006, the Permittee requested a withdrawal of their FESOP renewal application that was received by IDEM, OAQ on August 22, 2005. Tests were conducted at the source indicating the remediation of the subsurface soils at the facility had been completed, leaving only groundwater remediation and treatment to continue and emissions would be at a lower level.

Upon review of the application, it has been determined that without the soil remediation, the source no longer requires a FESOP because the remaining units have a PTE of less than 5 tons per year VOC and a single HAP. The PTE of PM, PM2.5 and PM10 are less than 1 ton per year. The former Soil Vapor Extraction systems will be used to remove vapors during the groundwater treatment.

Therefore, this source is now being permitted under the provisions in 326 IAC 2-1.1-3 (Exemption).

### Permitted Emission Units and Pollution Control Equipment

The source consists of the following unit:

- (a) Two (2) Vapor Extraction systems, identified as SVE-1 and SVE-2 each controlled with a carbon adsorber, and venting through vents #1 and #2, respectively. Each system consists of:
  - (1) Two (2) vapor extraction wells.
  - (2) One (1) 55 gallon moisture separator.
  - (3) One (1) vacuum pump.
  - (4) One (1) 750 pound carbon absorber.
- (b) The following exempt emission units (326 IAC 2-1.1-3):

- (1) One groundwater treatment system, identified as GW-1 consisting of:
  - (A) Two (2) recovery wells.
  - (B) One (1) 500 gallon water holding tank.
  - (C) One (1) 750 pound activated carbon treatment tank.
  - (D) One (1) 4000 gallon water storage tank.

### Source Definition

Superior Environmental will be installing a groundwater and soil remediation operation on Henschen Oil Company property. However, since Superior Environmental and Henschen Oil are owned and operated by separate and unrelated entities with no common ownership or control between them, and they operate under different SIC codes, they are considered separate sources.

### Enforcement Issue

There are no enforcement actions pending.

### Existing Approvals

The source was issued FESOP Permit No. 039-13710-00552 on June 13, 2001 and expired on June 13, 2006.

The source has since received the following approvals:

Administrative Amendment No. 039-19260-00552 issued on June 15, 2004.

### Emission Calculations

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

### Potential to Emit

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

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 (tons/year)
PM	<1
PM-10	<1
SO <sub>2</sub>	<1
VOC	0.02
CO	<1
NO <sub>x</sub>	<1

HAP's	Potential To Emit (tons/year)
Benzene	0.12
Toluene	0.82

Ethylbenzene	0.05
Xylenes	0.09
Total Petroleum HC	2.28
TOTAL	3.36

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of all criteria 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 2-7-1(29)) of a combination HAPs is less than twenty-five (25) tons per year. 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 emissions are not counted toward determination of PSD and Emission Offset applicability.

**County Attainment Status**

The source is located in Elkhart County.

Pollutant	Status
PM-10	attainment
PM2.5	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
1-hour Ozone	attainment
8-hour Ozone	Basic 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. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) Elkhart County has been classified as 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 for the source section.
- (c) Elkhart County has been classified as attainment or unclassifiable in Indiana for all other 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 for the 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.

### **Part 70 Permit Determination**

#### **326 IAC 2-7 (Part 70 Permit Program)**

This 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.

### **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this exemption.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR 63) included in this exemption.

### **State Rule Applicability - Entire Source**

#### **326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset)**

The total source potential emissions of all attainment pollutants (PM, PM<sub>10</sub>, SO<sub>2</sub>, VOC, NO<sub>x</sub> and CO) and nonattainment 8-hour ozone are less than one hundred (100) tons per year. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset) do not apply.

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

This source is not subject to 326 IAC 2-6 (Emission Reporting) because it is not required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, and it does not emit Lead in the ambient air at levels equal to or greater than five (5) tons per year, and it is not located in Lake or Porter County.

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

The potential to emit of any single HAP from SVE-1, SVE-2 and GW-1 is less than ten (10) tons per twelve consecutive month period. The potential to emit of all HAPs from SVE-1, SVE-2, and GW-1 is less than twenty-five (25) tons per twelve (12) consecutive month period. Any change or modification which may increase the PTE above these levels shall require approval from IDEM, OAQ prior to making the change.

#### **326 IAC 5-1 (Opacity Limitations)**

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

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

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

The total potential to emit of VOCs from each facility is less than 25 tons per year, therefore the provisions of 326 IAC 8-1-6 do not apply.

**Testing Requirements**

The source is not required to test any of the facilities because standard emissions factors were used for all the emission units.

**Conclusion**

The operation of this groundwater remediation source shall be subject to the conditions of the attached Exemption No. 039-23041-00552

**Appendix A: Emission Calculations**

**Vapor Extractors**

**Company Name:** Superior Environmental Remediation, Inc.

**Address:** 914 East Waterford Street, Wakarusa, Indiana 46573

**FESOP:** 039-23041-00552

**Date:** 07/18/06

**PTE for 2 Vapor Extractors:**

SVE-1					
Pollutant	Concentration in Air (ppm)	Molecular Weight	Concentration in Air (lb/cf)	Flow Rate through SVE System (acfm)	PTE (tons/yr)
Benzene	2	78	4.05E-07	230	0.02
Toluene	11	92	2.63E-06	230	0.16
Ethylbenzene	1	106	2.75E-07	230	0.02
Xylenes	1	106	2.75E-07	230	0.02
Total Petroleum HC**	26	102	6.89E-06	230	0.42

SVE-2					
Pollutant	Concentration in Air (ppm)	Molecular Weight	Concentration in Air (lb/cf)	Flow Rate through SVE System (acfm)	PTE (tons/yr)
Benzene	8	78	1.62E-06	230	0.10
Toluene	46	92	1.10E-05	230	0.66
Ethylbenzene	2	106	5.51E-07	230	0.03
Xylenes	4	106	1.10E-06	230	0.07
Total Petroleum HC**	116	102	3.07E-05	230	1.86
<b>Total SVE-1 &amp; SVE-2</b>					<b>3.35</b>

\* The potential to emit is the total for both soil vapor extraction systems.

\*\* Includes benzene, toluene, ethylbenzene and xylenes in addition to other non-HAP hydrocarbons.

**Methodology:**

PTE = pollutant concentration (lb/cf) \* flow rate per system (acfm) \* 60 min/hr \* 8760 hrs/yr / 2000 lbs/ton

**Appendix A: Emission Calculations**  
**Groundwater Treatment**

**Company Name:** Superior Environmental Remediation, Inc.  
**Address:** 914 East Waterford Street, Wakarusa, Indiana 46573  
**FESOP:** 039-23041-00552  
**Date:** 07/18/06

**PTE from Untreated groundwater:**

Maximum VOC concentration = 1 ppm  
1 ppm = 1 mg/L

Maximum throughput = 5256000 gal/yr

$0.001 \text{ g/L} * 8.345\text{E-}3 \text{ ((lbs/gal)/(g/L))} = 8.35 \text{ E-}6 \text{ lbs VOC/gal}$

$8.35 \text{ E-}6 \text{ lbs VOC/gal} * 5,256,000 \text{ gal/yr} / 2000 \text{ lbs/ton} = 0.02 \text{ tpy VOC}$

**Maximum PTE of VOC = 0.02 tpy**