



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: February 17, 2010

RE: Superior Environmental Remediation90 / 089 - 28843 - 00552

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval - Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

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, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice.** The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FN-REGIS.dot 1/2/08



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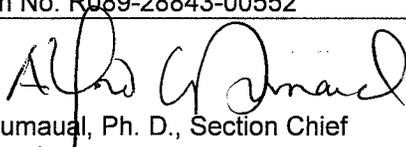
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REGISTRATION OFFICE OF AIR QUALITY

Superior Environmental Remediation⁹⁰, Inc.
2401 E 181 Ave
Lowell, Indiana 46341

Pursuant to 326 IAC 2-5.1 (Construction of New Sources: Registrations) and 326 IAC 2-5.5 (Registrations), (herein known as the Registrant) is hereby authorized to construct and operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this registration.

Registration No. R089-28843-00552	
Issued by:  Alfred C. Dumauq, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: February 17, 2010

SECTION A

SOURCE SUMMARY

This registration is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Registrant should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Registrant to obtain additional permits pursuant to 326 IAC 2.

A.1 General Information

The Registrant owns and operates a stationary groundwater remediation with soil vapor extraction company.

Source Address:	2401 E 181st Ave, Lowell, IN 46341
Mailing Address:	2101 Lincolnway E, Mishawaka, IN 46544
General Source Phone Number:	574-256-1490
SIC Code:	8748, 4959
County Location:	Lake County
Source Location Status:	Nonattainment for 8-hour ozone standard Nonattainment for PM 2.5 standard Attainment for all other criteria pollutants
Source Status:	Registration

A.2 Emission Units and Pollution Control Equipment Summary

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) soil vapor extraction process, identified as SVE, approved for construction in 2010, with a maximum capacity of 8760 hours, using gas phase and water phase granular activated carbon adsorption as control, identified as VPC-1, and exhausting to stack SVE-1, consisting of:
 - (1) One (1) moisture separator, identified as MS-1;
 - (2) One (1) condensate transfer pump, identified as CTP;
 - (3) One (1) blower motor, identified as BA-1a;
 - (4) One (1) rotary lobe blower, identified as BA-1b;
 - (5) One (1) heat exchanger, identified as HE-1; and
 - (6) One (1) vapor phase carbon tank, identified as VPC-1, and exhausting to stack SVE-1;
- (b) One (1) ground water, remediation process, identified as GRP, approved for construction in 2010, using air stripping as the remediation method, with a maximum capacity of 8760 hours, using gas phase and water phase granular activated carbon adsorption as control, and exhausting to stack OF-001, consisting of:
 - (1) One (1) above ground surge/holding tank, with a fixed dome roof, identified as ST, used for petroleum contaminated water, with a maximum storage capacity of 500 gallons, and a maximum annual throughput of 21,024,000 gallons;
 - (2) One (1) water transfer pump, identified as TP;
 - (3) Two (2) above ground liquid phase carbon tanks, with fixed dome roofs, identified

as LPC-1 and LPC-2, used for groundwater undergoing activated carbon treatment, each with a maximum storage capacity of 800.36 gallons, and a maximum annual throughput of 21,240,000 gallons, each;

- (4) One (1) holding tank, with a fixed cone roof, identified as HT, used for treated groundwater, with a maximum storage capacity of 300 gallons, and a maximum annual throughput of 18,396,000 gallons; and
 - (5) One (1) waste water discharge outfall, identified as OF-001, exhausting to stack OF-001.
- (c) Fugitive emissions from:
- (1) Unpaved roads, identified as F-1, with no control;
 - (2) Equipment leaks, associated with GRP, and identified as F-2; and
 - (3) Emission losses from tanks venting, identified as F-3.

SECTION B

GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

Terms in this registration shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) shall prevail.

B.2 Effective Date of Registration [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this registration is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

B.3 Registration Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation), this registration to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this registration.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this registration.
- (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 registration shall not require revocation of this registration.
- (d) For any cause which establishes in the judgment of IDEM the fact that continuance of this registration is not consistent with purposes of this article.

B.4 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to Registration No. 089-28843-00552 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this registration.

B.5 Annual Notification [326 IAC 2-5.1-2(f)(3)] [326 IAC 2-5.5-4(a)(3)]

Pursuant to 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3):

- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this registration.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003

Indianapolis, IN 46204-2251

- (c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

B.6 Source Modification Requirement [326 IAC 2-5.5-6(a)]

Pursuant to 326 IAC 2-5.5-6(a), 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.

B.7 Registrations [326 IAC 2-5.1-2(i)]

Pursuant to 326 IAC 2-5.1-2(i), this registration does not limit the source's potential to emit.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

C.1 Opacity [326 IAC 5-1]

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

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

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

The Registrant shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

**REGISTRATION
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3).

Company Name:	Superior Environmental Remediation ⁹⁰ , Inc.
Address:	2401 E 181st Ave
City:	Lowell, IN 46341
Phone Number:	574-256-1490
Registration No.:	R089-28843-00552

I hereby certify that Superior Environmental Remediation⁹⁰, Inc. is :

- still in operation.
- no longer in operation.

I hereby certify that Superior Environmental Remediation⁹⁰, Inc. is :

- in compliance with the requirements of Registration No. R089-28843-00552.
- not in compliance with the requirements of Registration No. R089-28843-00552.

Authorized Individual (typed):
Title:
Signature:
Phone Number:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Description and Location

Source Name: Superior Environmental Remediation⁹⁰, Inc.
Source Location: 2401 E 181st Ave, Lowell, IN 46341
County: Lake
SIC Code: 8748, 4959
Registration No.: R089-28843-00552
Permit Reviewer: Christine L. Filutze

On December 31, 2009, the Office of Air Quality (OAQ) received an application from Superior Environmental Remediation⁹⁰, Inc. related to the construction and operation of a new groundwater remediation with soil vapor extraction company.

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in the city of Lowell, which is in Eagle Creek Township of Lake County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Attainment effective February 18, 2000, for the part of the city of East Chicago bounded by Columbus Drive on the north; the Indiana Harbor Canal on the west; 148 th Street, if extended, on the south; and Euclid Avenue on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of East Chicago and Lake County.
O ₃	Nonattainment Subpart 2 Moderate effective June 15, 2004, for the 8-hour ozone standard. ¹
PM ₁₀	Attainment effective March 11, 2003, for the cities of East Chicago, Hammond, Whiting, and Gary. Unclassifiable effective November 15, 1990, for the remainder of Lake County.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.

¹Nonattainment Severe 17 effective November 15, 1990, for the Chicago-Gary-Lake County area for the 1-hour ozone standard which was revoked effective June 15, 2005.
Basic nonattainment designation effective federally April 5, 2005, for PM_{2.5}.

- (a) Ozone Standards
 - 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.
 - (i) 1-hour ozone standard

On December 22, 2006 the United States Court of Appeals, District of Columbia issued a decision which served to partially vacate and remand the U.S. EPA's final rule for implementation of the eight-hour National Ambient Air quality Standard for ozone. *South Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882 (D.C. Cir., December 22, 2006), *rehearing denied* 2007 U.S. App. LEXIS 13748 (D.C. Cir., June 8, 2007). The U.S. EPA

has instructed IDEM to issue permits in accordance with its interpretation of the *South Coast* decision as follows: Gary-Lake-Porter County was previously designated as a severe non-attainment area prior to revocation of the one-hour ozone standard, therefore, pursuant to the anti-backsliding provisions of the Clean Air Act, any new or existing source must be subject to the major source applicability cut-offs and offset ratios under the area's previous one-hour standard designation. This means that a source must achieve the Lowest Achievable Emission Rate (LAER) if it exceeds 25 tons per year of VOC emissions and must offset any increase in VOC emissions by a decrease of 1.3 times that amount.

On January 26, 1996 in 40 CFR 52.777(i), the U.S. EPA granted a waiver of the requirements of Section 182(f) of the CAA for Lake and Porter Counties, including the lower NOx threshold for nonattainment new source review. Therefore, VOC emissions alone are considered when evaluating the rule applicability relating to the 1-hour ozone standards. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability for the source section.

(ii) 8-hour ozone standard

VOC and NOx emissions are considered when evaluating the rule applicability relating to the 8-hour ozone standard. Lake 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. See the State Rule Applicability – Entire Source section.

(b) PM2.5

U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Lake County as nonattainment for PM2.5. On March 7, 2005 the Indiana Attorney General's Office, on behalf of IDEM, filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's New Source Review Rule for PM2.5 promulgated on May 8, 2008, and effective on July 15, 2008. Therefore, direct PM2.5 and SO2 emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants

Lake 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.

Fugitive Emissions

The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-5.1-2 (Registrations) applicability.

Background and Description of Emission Units and Pollution Control Equipment

The Office of Air Quality (OAQ) has reviewed an application, submitted by Superior Environmental Remediation⁹⁰, Inc. on December 31, 2009, relating to the construction and operation of a new groundwater remediation, with soil vapor extraction, company.

The following is a list of the new emission units and pollution control devices:

- (a) One (1) soil vapor extraction process, identified as SVE, approved for construction in 2010, with a maximum capacity of 8760 hours, using gas phase and water phase granular activated carbon

adsorption as control, identified as VPC-1, and exhausting to stack SVE-1, consisting of:

- (1) One (1) moisture separator, identified as MS-1;
 - (2) One (1) condensate transfer pump, identified as CTP;
 - (3) One (1) blower motor, identified as BA-1a;
 - (4) One (1) rotary lobe blower, identified as BA-1b;
 - (5) One (1) heat exchanger, identified as HE-1; and
 - (6) One (1) vapor phase carbon tank, identified as VPC-1, and exhausting to stack SVE-1;
- (b) One (1) ground water, remediation process, identified as GRP, approved for construction in 2010, using air stripping as the remediation method, with a maximum capacity of 8760 hours, using gas phase and water phase granular activated carbon adsorption as control, and exhausting to stack OF-001, consisting of:
- (1) One (1) above ground surge/holding tank, with a fixed dome roof, identified as ST, used for petroleum contaminated water, with a maximum storage capacity of 500 gallons, and a maximum annual throughput of 21,024,000 gallons;
 - (2) One (1) water transfer pump, identified as TP;
 - (3) Two (2) above ground liquid phase carbon tanks, with fixed dome roofs, identified as LPC-1 and LPC-2, used for groundwater undergoing activated carbon treatment, each with a maximum storage capacity of 800.36 gallons, and a maximum annual throughput of 21,240,000 gallons, each;
 - (4) One (1) holding tank, with a fixed cone roof, identified as HT, used for treated groundwater, with a maximum storage capacity of 300 gallons, and a maximum annual throughput of 18,396,000 gallons; and
 - (5) One (1) waste water discharge outfall, identified as OF-001, exhausting to stack OF-001.
- (c) Fugitive emissions from:
- (1) Unpaved roads, identified as F-1, with no control;
 - (2) Equipment leaks, associated with GRP, and identified as F-2; and
 - (3) Emission losses from tanks venting, identified as F-3.

Enforcement Issues

There are no pending enforcement actions related to this source.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – Registration
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The following table reflects the unlimited potential to emit (PTE) of the entire source before controls.

Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/ Emission Unit	Potential To Emit of the Entire Source (tons/year)								
	PM	PM10 *	PM2.5	SO ₂	NO _x	VOC	CO	Total HAPs	Worst Single HAP
Soil and Groundwater Remediation (SVE, GRP)	0.00	0.00	0.00	0.00	0.00	18.80	0.00	4.63	1.60 (Xylene)
Tanks (ST, LPC-1, LPC-2, HT)	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	
Fugitive Emissions - Unpaved Roads (F-1)	negl.	negl.	negl.	0.00	0.00	0.00	0.00	0.00	
Fugitive Emissions - Equipment and Tank Leaks (F-2, F-3)	0.00	0.00	0.00	0.00	0.00	negl.	0.00	0.00	
Total PTE of Entire Source	negl.	negl.	negl.	0.00	0.00	19.12	0.00	4.63	
Exemptions Levels	5	5	5	10	10	5 or 10	25	25	10
Registration Levels	25	25	25	25	25	25	100	25	10
negl. = negligible * Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".									

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of VOC and HAP's are within the ranges listed in 326 IAC 2-5.1-2(a)(1). The PTE of all other regulated criteria pollutants are less than the ranges listed in 326 IAC 2-5.1-2(a)(1). Therefore, the source is subject to the provisions of 326 IAC 2-5.1-2 (Registrations). A Registration will be issued.
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Hazardous Air Pollutants: Site Remediation, 40 CFR 63, Subpart GGGGG (326 IAC 20-87), are not included in the permit, since the soil vapor extraction process, identified as SVE, and the ground water remediation process, identified as GRP, are not major sources of HAPs.

- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

- (d) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination

The following state rules are applicable to the source:

- (a) 326 IAC 2-5.1-2 (Registrations)
Registration applicability is discussed under the Permit Level Determination – Registration section above.
- (b) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.
- (c) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is located in Lake County, it has actual emissions of NO_x and VOC of less than twenty-five (25) tons per year, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (d) 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 Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
- (1) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (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.
- (e) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.
- (f) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
The source is not subject to the requirements of 326 IAC 6-5, because the source is located in Lake County and does not have potential fugitive particulate emissions greater than 5 tons or more per year. Therefore, 326 IAC 6-5 does not apply.

- (g) 326 IAC 6.8-10 (Lake County: Fugitive Particulate Matter)
The source is located in Lake County, but is not subject to the requirements of 326 IAC 6.8-10, because the source does not have potential fugitive particulate emissions greater than 5 tons per year.
- (h) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
Each of the emission units at this source is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from each emission unit is less than twenty-five (25) tons per year.
- (i) 326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)
The source is located in Lake County, but is not subject to the requirements of 326 IAC 8-7, because the source does not emit or have the potential to emit volatile organic compounds (VOCs) at levels equal to or greater than twenty-five (25) tons per year (tpy).
- (j) 326 IAC 8-20 (Industrial Wastewater)
The source is located in Lake County, but is not subject to the requirements of 326 IAC 8-20, because the source does not have the combined total potential to emit VOC emissions equal to or greater than one hundred (100) tons per year of industrial process wastewater.
- (k) 326 IAC 12 (New Source Performance Standards)
See Federal Rule Applicability Section of this TSD.
- (l) 326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

Conclusion and Recommendation

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 December 31, 2009. Additional information was received on January 11, 2010, and February 4, 2010.

The construction and operation of this source shall be subject to the conditions of the attached proposed Registration No. R089-28843-00552. The staff recommends to the Commissioner that this Registration be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Christine L. Filutze at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-8397 or toll free at 1-800-451-6027 extension (3-8397).
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

**Potential To Emit
Summary**

Company Name: Superior Environmental Remediation⁹⁰, Inc.
Address : 2101 Lincolnway East, Mishawaka, IN 46544
Site Address: 2401 East 181st Avenue, Lowell, In
Registration No.: 089-28843-00552
Reviewer: Christine L. Filutze
Date: February 10, 2010

	PM/PM10/PM2.5	VOC's	HAPs	Worst Case Single HAP
Soil and Groundwater Remediation (SVE, GRP)	0.00	18.80	4.63	1.60
Tanks (ST, LPC-1, LPC-2, HT)	0.00	0.32	0.00	(Xylene)
Fugitive Emissions - Unpaved Roads (F-1)	9.30E-04	0.00	0.00	
Fugitive Emissions - Equipment and Tank Leaks (F-2, F-3)	0.00	negl.	0.00	
Totals:	9.30E-04	19.12	4.63	

negl. = negligible

Table 9: Volatile Organic Compounds (VOCs) Emissions Calculations

2 Point Dual Groundwater Treatment and 7 Point Soil Vapor Extraction system

Company Name: Superior Environmental Remediation⁹⁰, Inc.
 Address: 2101 Lincolnway East, Mishawaka, IN 46544
 Site Address: 2401 East 181st Avenue, Lowell, IN
 Registration No.: 089-28843-00552
 Reviewer: Christine L. Filutze
 Date: February 10, 2010

Weight Of Total Petroleum Hydrocarbons (TPH) To Be Remediated By System (lbs)

Groundwater TPH-gro	Figure 4	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 9	Zone 10	Zone 11	Zone 12	TOTAL
Concentration Range in Concentric Gradient (ug/L)		0.22-10	0.10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100-110	110-120	
Maximum Concentration in Gradient		10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	
Contaminated Area within delineated concentration (ft ²)		100206.01	41634.23	20904.08	12861.21	8083.13	4920.81	2840.89	1704.37	989.89	514.06	216.10	48.63	
Preceding concentric area (ft ²)		-41634.23	-20904.08	-12861.21	-8083.13	-4920.81	-2840.89	-1704.37	-989.89	-514.06	-216.10	-48.63		
Area from Secondary Plume Component														
Preceding concentric area (ft ²)														
Area from Tertiary Plume Component														
Preceding concentric area (ft ²)														
Total area (ft ²)		58571.78	20730.15	8042.87	4778.08	3162.32	2079.92	1136.52	714.48	475.83	297.96	167.47	48.63	100206.01
Depth of Contamination (ft) ^a		14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	
Porosity ^b		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
Volume of TPH-gro Contaminated Groundwater (ft ³) ^c		254787.24	90176.15	34986.48	20784.65	13756.09	9047.65	4943.86	3107.99	2069.86	1296.13	728.49	211.54	
Volume of TPH-gro Contaminated Groundwater (gal)		1906063.36	674607.80	261733.89	155489.95	102909.32	67685.48	36985.03	23250.86	15484.63	9696.32	5449.87	1582.53	
Weight of TPH-gro in Groundwater (lb) ^d		0.16	0.11	0.07	0.05	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.00	0.53

Groundwater TPH-ero	Figure 5	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 9	Zone 10	Zone 11	Zone 12	Zone 13	Zone 14	Zone 15	Zone 16	Zone 17	Zone 18	Zone 19	Zone 20	Zone 21	Zone 22	Zone 23	Zone 24	Zone 25	Zone 26	TOTAL	
Concentration Range in Concentric Gradient (ug/L)		0.1-0.5	0.5-1.0	1.0-1.5	1.5-2.0	2.0-2.5	2.5-3.0	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0-5.5	5.5-6.0	6.0-6.5	6.5-7.0	7.0-7.5	7.5-8.0	8.0-8.5	8.5-9.0	9.0-9.5	9.5-10.0	10.0-10.5	10.5-11.0	11.0-11.5	11.5-12.0	12.0-12.5	12.5-13.0		
Maximum Concentration in Gradient		0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13		
Contaminated Area within delineated concentration (ft ²)		186122.62	54046.12	38923.39	30221.82	28299.58	18476.70	13765.59	10889.20	8525.63	6950.94	5442.00	4357.85	3400.54	2813.97	2203.86	1825.59	1660.53	1142.52	882.57	668.37	490.68	349.38	233.92	143.97	73.31	23.33		
Preceding concentric area (ft ²)		-54046.12	-38923.39	-30221.82	-28299.58	-18476.70	-13765.59	-10889.20	-8525.63	-6950.94	-5442.00	-4357.85	-3400.54	-2813.97	-2203.86	-1825.59	-1660.53	-1142.52	-882.57	-668.37	-490.68	-349.38	-233.92	-143.97	-73.31	-23.33	0		
Area from Secondary Plume Component																													
Preceding concentric area (ft ²)																													
Area from Tertiary Plume Component																													
Preceding concentric area (ft ²)																													
Total area (ft ²)		80732.54	44741.67	16207.01	7241.40	14002.41	7801.23	4002.73	2868.00	1574.69	1508.94	1084.15	957.31	586.57	610.11	378.27	165.06	518.01	259.95	214.20	177.69	141.30	115.46	89.95	70.66	49.98	23.33	186122.62	
Depth of Contamination (ft) ^a		14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	
Porosity ^b		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
Volume of TPH-gro Contaminated Groundwater (ft ³) ^c		351186.55	194626.26	70500.49	31500.09	60910.48	33935.35	17411.88	12475.80	6849.90	6563.89	4716.05	4164.30	2551.58	2653.98	1645.47	718.01	2253.34	1130.78	931.77	772.95	614.66	502.25	391.28	307.37	217.41	101.49		
Volume of TPH-gro Contaminated Groundwater (gal)		2627226.57	1455999.08	527144.19	235652.17	455671.33	253870.36	130258.24	93331.46	51244.11	49104.45	35280.79	31153.12	19088.37	19854.41	12309.79	5371.44	16857.26	8459.38	6970.57	5782.45	4598.23	3757.34	2927.18	2299.44	1626.47	759.21		
Weight of TPH-gro in Groundwater (lb) ^d		0.011	0.012	0.007	0.004	0.010	0.006	0.004	0.003	0.002	0.002	0.002	0.002	0.001	0.001	0.001	0.0004	0.001	0.001	0.001	0.0005	0.0004	0.0003	0.0003	0.0002	0.0002	0.0001	0.07	

Soil TPH gro	Figure 6	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 9	TOTAL
Concentration Range in Concentric Gradient (mg/Kg)		25-1000	1000-2000	2000-3000	3000-4000	4000-5000	5000-6000	6000-7000	7000-8000	8000-9000	
Maximum Concentration in Gradient		1000	2000	3000	4000	5000	6000	7000	8000	9000	
Contaminated Area within delineated concentration (ft ²)		116343.64	67024.60	42556.28	13171.80	6776.74	3424.40	1588.58	559.49	77.30	
Preceding concentric area (ft ²)		-67024.60	-42556.28	-13171.80	-6776.74	-3424.40	-1588.58	-559.49	-77.30		
Area from Secondary Plume Component											
Preceding concentric area (ft ²)				-6548.76	-1601.59						
Area from Tertiary Plume Component											
Preceding concentric area (ft ²)											
Total area (ft ²)		49319.04	24468.32	22835.72	11342.23	4953.93	1835.82	1029.09	482.19	77.3	116343.64
Thickness of Soil (ft) ^a		7	7	7	7	7	7	7	7	7	
Volume of Contaminated Soil (ft ³) ^a		345233.28	171278.24	159850.04	79395.61	34677.51	12850.74	7203.63	3375.33	541.1	
Soil density (lbs/ft ³) ^b		93.56	93.56	93.56	93.56	93.56	93.56	93.56	93.56	93.56	
Concentration of TPH-gro (lb/MMlbs of soil) ^c		32300.03	32049.58	44866.71	29713.01	16222.14	7213.89	4717.80	2526.37	455.63	170065.16

Soil TPH ero	Figure 7	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Zone 9	Zone 10	Zone 11	Zone 12	Zone 13	Zone 14	Zone 15	Zone 16	TOTAL
Concentration Range in Concentric Gradient (mg/Kg)		80-100	100-150	150-200	200-250	250-300	300-350	350-400	400-450	450-500	500-550	550-600	600-650	650-700	700-750	750-800	800-850	
Maximum Concentration in Gradient		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	
Contaminated Area within delineated concentration (ft ²)		72208.33	60261.72	24779.20	17552.63	12811.47	9375.42	6811.89	5095.45	3604.92	2695.62	1886.17	1261.05	786.42	428.42	198.63	55.42	
Preceding concentric area (ft ²)		-60261.72	-24779.20	-17552.63	-12811.47	-9375.42	-6811.89	-5095.45	-3604.92	-2695.62	-1886.17	-1261.05	-786.42	-428.42	-198.63	-55.42		
Area from Secondary Plume Component																		
Preceding concentric area (ft ²)																		
Area from Tertiary Plume Component																		
Preceding concentric area (ft ²)																		
Total area (ft ²)		11946.61	21891.62	13262.97	8609.24	5751.91	3706.14	1944.39	1490.53	909.3	809.45	625.12	474.63	358	229.79	143.21	55.42	72208.33
Thickness of Soil (ft) ^a		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
Volume of contaminated soil (ft ³) ^a		83626.27	153241.34	92840.79	60264.68	40263.37	25942.98	13610.73	10433.71	6365.1	5666.15	4375.84	3322.41	2506	1608.53	1002.47	387.94	
Soil density (lbs/ft ³) ^b		93.56	93.56	93.56	93.56	93.56	93.56	93.56	93.56	93.56	93.56	93.56	93.56	93.56	93.56	93.56	93.56	
Concentration of TPH-gro (lb/MMlbs of soil) ^c		782.41	2150.59	1737.24	1409.59	1130.11	849.53	509.37	439.28	297.76	291.57	245.64	202.05	164.12	112.87	75.03	30.85	10428.01

Total Weight of TPH in Groundwater (lbs) 0.60 Total Weight of Total TPH in Soil (lbs) 180493.17 Total Area of Contaminated Soil (sq.ft) 474880.60

ASSUMPTIONS

Impacted groundwater and soil plume area determined by delineation techniques and graphic depicted by Kriging methods.
 Figures 4, 5, 6, and 7 present the TPH delineated plumes and corresponding concentrations gradients, designated zones, are zone area.
 Total TPH in the groundwater or soil at specified zoned gradient assumes worst-case concentration in the zoned gradient.
 Each zone is defined by the delimited concentration area of the zone plus/minus any intersecting or parallel zoned areas at the specified concentration range.
^a Average thickness of contamination in water phase = 14.5 ft bgs @ depth 2.5 - 17 ft bgs.
^b Soil density (water bearing sand seams) at sandy soil porosity (0.3) = 1.5 g/cm³ or 93.56 lb/cf
^c Average thickness of contamination in soil = 7 ft bgs @ depth 7.0 - 14.0 ft bgs.
 The potential emissions rate for VOCs emitted from the remediation system was assumed to be constant during the remediation time period.
 The remediation time is estimated to take 4.8 years.
 Each of the total petroleum hydrocarbon (TPH) components is considered a VOC.

METHODOLOGY:

^a Volume of contaminated water = [Plume Area (ft²) * [Depth of Contamination (ft)] * [Porosity]
^b Weight of TPH in Groundwater (Dissolved Phase) (lbs) = [(Concentration of TPH (ug/L of water)) * [(g/1,000,000 ug)] * [3.785L/gal]] * [Volume of

2 Point Dual Groundwater Treatment and 7 Point Soil Vapor Extraction system					
Company Name: Superior Environmental Remediation ⁹⁰ , Inc.					
Address : 2101 Lincolnway East, Mishawaka, IN 46544					
Site Address: 2401 East 181st Avenue, Lowell, IN					
Registration No.: 089-28843-00552					
Reviewer: Christine L. Filutze					
Date: February 10, 2010					
TPH PTE (TPY)	18.80	TPH-gro (TPY)	17.71	TPH PTE (TPY)	18.80
				TPH-ero	1.09

Potential To Emit (PTE) of Gasoline TPH Constituents (TPH-gro)						Potential To Emit (PTE) of Diesel related TPH Constituents (TPH-ero)							
Compound Class	Compound	CAS#	Molecular Weight (g/mol)	Average Composition (% by weight)*	Potential to Emit (tons/yr)	Hazardous Air Pollutant	Compound Class	Compound	CAS#	Molecular Weight (g/mol)	Average Composition (% by weight)*	Potential to Emit (tons/yr)	Hazardous Air Pollutant
	1,3-Butadiene	106-99-0	54.1	0.0037%	6.6E-04	HAP	Alkenes	Total Alkenes			1.3000%	1.41E-02	N
	cis-2-Butene	590-18-1	56.1	0.3100%	5.5E-02		Alkene monoaromatics	Alkene monoaromatics			6.2000%	6.74E-02	N
	trans-2-Butene	624-64-6	56.1	0.3600%	6.4E-02		Alkyl-Monoaromatics	Benzene	71-43-2	78.1	0.0295%	3.21E-04	Y
	2-Methyl-1-butene	563-46-2	70.1	0.5400%	9.6E-02			Toluene	108-88-3	92.1	0.1850%	2.01E-03	Y
	2-Methyl-2-butene	513-35-9	70.1	1.1000%	1.9E-01			Ethylbenzene	100-41-4	106.2	0.0680%	7.39E-04	Y
	cis-2-Pentene	627-20-3	70.1	0.3900%	6.9E-02			tot-Xylene	108-38-3	106.2	0.5000%	5.43E-03	Y
	trans-2-Pentene	646-04-8	70.1	0.7200%	1.3E-01			1,3,5 trimethylbenzene	108-67-8	120.19	0.1800%	1.96E-03	N
Alkyl-Monoaromatics	Benzene	71-43-2	78.1	1.9000%	3.4E-01	HAP		n propylbenzene	103-65-1		0.0390%	4.24E-04	N
	Toluene	108-88-3	92.1	8.1000%	1.4E+00	HAP		1 methyl 4 isopropylbenzene			0.0150%	1.63E-04	N
	Ethylbenzene	100-41-4	106.2	1.7000%	3.0E-01	HAP		n butylbenzene			0.0380%	4.13E-04	N
	m-Xylene	108-38-3	106.2	4.6000%	8.1E-01	HAP	Branched Alkanes	3 methylundecane			0.1700%	1.85E-03	N
	o-Xylene	95-47-6	106.2	2.5000%	4.4E-01	HAP		2 methyl dodecane			0.2800%	3.04E-03	N
	p-Xylene	106-42-3	106.2	1.9000%	3.4E-01	HAP		3 methyl tridecane			0.1900%	2.06E-03	N
	1,2,4-Trimethylbenzene	95-63-6	120.2	3.0000%	5.3E-01			2 methyl tetradecane			0.4800%	5.22E-03	N
	1,3,5-Trimethylbenzene	108-67-8	120.2	0.9800%	1.7E-01			Pristane			0.6000%	6.52E-03	N
	1-Methyl-2-ethylbenzene	611-14-3	120.2	0.7100%	1.3E-01			Phytane			0.5000%	5.43E-03	N
	1-Methyl-3-ethylbenzene	620-14-4	120.2	1.8000%	3.2E-01		Cycloalkanes	Tot Dicycloalkanes			14.0000%	1.52E-01	N
	1-Methyl-4-ethylbenzene	622-96-8	120.2	0.8000%	1.4E-01			Tot Monocycloalkanes			19.0000%	2.06E-01	N
Branched Alkanes	Isobutane	75-28-5	58.1	1.7000%	3.0E-01			tetracycloalkanes			0.1000%	1.09E-03	N
	Isopentane	78-78-4	72.1	7.9000%	1.4E+00			tricycloalkanes			6.2000%	6.74E-02	N
	2,2-Dimethylbutane	75-83-2	86.2	0.4900%	8.7E-02		Diaromatics	Flourene			0.0860%	9.35E-04	N
	2,3-Dimethylbutane	79-29-8	86.2	1.0000%	1.8E-01			Biphenyl			0.0630%	6.85E-04	Y
	2-Methylpentane	107-83-5	86.2	3.9000%	6.9E-01			methylbiphenyls			0.0530%	5.76E-04	N
	3-Methylpentane	96-14-0	86.2	2.5000%	4.4E-01			methylfluorenes			0.2000%	2.17E-03	N
	2,4-Dimethylpentane	108-08-7	100.2	0.8300%	1.5E-01			dimethylfluorenes			0.4200%	4.56E-03	N
	2-Methylhexane	591-76-4	100.2	3.0000%	5.3E-01		Metals	As			0.00001%	7.72E-08	Y
	3-Methylhexane	589-34-4	100.2	1.7000%	3.0E-01			Cd			0.00005%	5.32E-07	Y
	2,2,4-Trimethylpentane	540-84-1	114.2	2.4000%	4.3E-01	HAP		Cr			0.00017%	1.85E-06	Y
	2,3,3-Trimethylpentane	560-21-4	114.2	0.6600%	1.2E-01			Fe			0.00370%	4.02E-05	N
	2,3,4-Trimethylpentane	565-75-3	114.2	0.9700%	1.7E-01			Mn			0.00032%	3.48E-06	Y
	2,3-Dimethylhexane	584-94-1	114.2	0.3900%	6.9E-02			Mo			0.00001%	1.52E-07	N
	2,4-Dimethylhexane	589-43-5	114.2	0.4400%	7.8E-02			Zn			0.00031%	3.37E-06	N
	3-Methylheptane	589-81-1	114.2	0.7500%	1.3E-01		Monoaromatics	benzocycloparaffins			6.3000%	6.85E-02	N
Cycloalkanes	Cyclopentane	287-92-3	70.1	0.4700%	8.3E-02			benzodicycloparaffins			3.0000%	3.26E-02	N
	Cyclohexane	110-82-7	84.2	0.3900%	6.9E-02			dinaphthenobenzenes			1.8000%	1.96E-02	N
	Methylcyclopentane	96-37-7	84.2	1.8000%	3.2E-01			indenes			3.1000%	3.37E-02	N
	Methylcyclohexane	108-87-2	98.2	0.5800%	1.0E-01			indans and tetralins			5.9000%	6.41E-02	N
n-Alkanes	n-Butane	106-97-8	58.1	4.7000%	8.3E-01		n Alkanes	n octane			0.1100%	1.20E-03	N
	n-Pentane	109-66-0	72.1	3.9000%	6.9E-01			n nonane			0.3800%	4.13E-03	N
	n-Hexane	110-54-3	86.2	2.4000%	4.3E-01	HAP		n decane			0.7800%	8.48E-03	N
	n-Heptane	142-82-5	100.2	1.1000%	1.9E-01			n Undecane			1.4000%	1.52E-02	N
	Naphthalene	91-20-3	128.2	0.2500%	4.4E-02	HAP		n dodecane			1.7000%	1.85E-02	N
	1-Methylnaphthalene	90-12-0	142.2	0.0700%	1.2E-02			n tridecane			2.1000%	2.28E-02	N
	2-Methylnaphthalene	91-57-6	142.2	0.1800%	3.2E-02			n tetradecane			1.9000%	2.06E-02	N
Oxygenates	Methyl-tert-butyl ether	1634-04-4	88.1	0.3300%	5.8E-02	HAP		n pentadecane			2.6000%	2.83E-02	N
	Total			76.21%				n hexadecane			2.3000%	2.50E-02	N
								n heptadecane			2.2000%	2.39E-02	N
								n octadecane			1.6000%	1.74E-02	N
								n nonadecane			1.0000%	1.09E-02	N
								n eicosane			0.6200%	6.74E-03	N
								n heneicosane			0.4400%	4.78E-03	N
								n docosane			0.3100%	3.37E-03	N
								n tetracosane			0.3500%	3.80E-03	N
							Naphthalenes	Naphthalene	91-20-3	128.2	0.2600%	2.83E-03	Y
								1-Methylnaphthalene	90-12-0	142.2	0.4800%	5.22E-03	N
								2-Methylnaphthalene	91-57-6	142.2	0.8900%	9.67E-03	N
								1,3 dimethylnaphthalene			0.9700%	1.05E-02	N
								1,4 dimethylnaphthalene			0.1800%	1.96E-03	N
								1,5 dimethylnaphthalene			0.2900%	3.15E-03	N
								tot trimethylnaphthalenes			0.2400%	2.61E-03	N
							Other	2 azapyrene			0.00014%	1.52E-06	N
								tot thioaromatics			0.3000%	3.26E-03	N
								ethylhexyl nitrate			0.2000%	2.17E-03	N
								dibenzothiophene			0.0150%	1.63E-04	N
								1 methylcarbazole			0.00160%	1.74E-05	N
								2 methylcarbazole			0.00048%	5.22E-06	N
								3 methylcarbazole			0.00038%	4.13E-06	N
								4 methylcarbazole			0.00076%	8.26E-06	N
								1,2 dimethylcarbazole			0.00058%	6.30E-06	N
								1,3 dimethylcarbazole			0.00034%	3.69E-06	N
								1,4 dimethylcarbazole			0.00100%	1.09E-05	N
								1,6 dimethyldibenzothiophene			0.00670%	7.28E-05	N
								2,6 dimethyldibenzothiophene			0.0200%	2.17E-04	N
								2 phenylindole			0.00038%	4.13E-06	N
								6 phenylquinoline			0.00070%	7.61E-06	N
								2 ethyldibenzothiophene			0.01700%	1.85E-04	N
								benzo(def)carbazole			0.00030%	3.26E-06	N
								9 phenylcarbazole			0.00036%	3.91E-06	N
							Polynuclear Aromatics	2 aminoacenaphthene			0.00040%	4.35E-06	N
								2 aminophenanthrene			0.00024%	2.61E-06	N
								3 aminophenanthrene			0.00020%	2.17E-06	N
								4 aminophenanthrene			0.00034%	3.69E-06	N
								anthracene			0.00580%	6.30E-05	N
								phenanthrene			0.0880%	9.56E-04	N
								1 methylphenanthrene			0.00510%	5.54E-05	N
								2 methylanthracene			0.00530%	5.76E-05	N
								2 methylphenanthrene			0.1600%	1.74E-03	N
								3 methylphenanthrene			0.00380%	4.13E-05	N
								4-9 methylphenanthrene			0.00670%	7.28E-05	N
								9 cyanoanthracene			0.00064%	6.96E-06	N
								9 cyanophenanthrene			0.00068%	7.39E-06	N
								Fluoranthene			0.00590%	6.41E-05	N
								Pyrene			0.00460%	5.00E-05	N
								1-methylpyrene			0.00029%	3.15E-06	N
								2 methylpyrene			0.00028%	3.04E-06	N
								Benzo(a)anthracene			0.00010%	1.04E-06	N
								Benzo(g,h,i)fluoranthene			0.00009%	1.01E-06	N
								Chrysene					

**PTE - Tanks
VOC's**

Company Name: Superior Environmental Remediation⁹⁰, Inc.
Address : 2101 Lincolnway East, Mishawaka, IN 46544
Site Address: 2401 East 181st Avenue, Lowell, In
Registration No.: 089-28843-00552
Reviewer: Christine L. Filutze
Date: February 10, 2010

EMISSION SOURCE	NUMBER OF EMISSION UNITS	PROJECTED UNCONTROLLED VOC EMISSIONS				
		(lb/yr)	(TPY)	(lb/day)	tons/day	(lb/hr)
Surge Tank (ST)	1	621.09	0.31	1.70	8.50E-04	0.07
Liquid Phase Carbon Tank (LPC-1)	1	6.18	3.09E-03	0.02	1.00E-05	8.33E-04
Liquid Phase Carbon Tank (LPC-2)	1	6.18	3.09E-03	0.02	1.00E-05	8.33E-04
Holding Tank (HT-1)	1	5.38	2.69E-03	0.01	5.00E-06	4.17E-04
Totals:		638.83	0.32	1.75	8.75E-04	0.07

Company Name: Superior Environmental Remediation⁹⁰, Inc.
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 Reviewer: Christine L. Filutze
 Date: February 10, 2010

Emission Type	Empirical Coefficients					Emission Factor (lb/VMT)	Mileage (VMT)	Potential Emissions				
	k	a	b	s	W			lb/hr	lb/day	lb/yr	TPY	TPY
PM ₁₀	1.5	0.9	0.45	4.8	2	0.55	3.39	< 0.01	< 0.01	1.86	9.30E-04	< 0.01
PM ₃₀	4.9	0.7	0.45	4.8	2	2.15	3.39	< 0.01	0.02	7.29	3.65E-03	< 0.01

$$E = k(s/12)^a(W/3)^b = \text{lb VMT (vehicle miles traveled)}$$

E = size specific emission factor (lb/VMT)

s = surface silt content (%) = 4.8 sand/gravel plant road.

W = mean vehicle weight (T) = 2

k = (lb/VMT) PM₁₀ = 1.5

PM₃₀ = 4.9

VMT = maximum distance traveled over unpaved surface from US 30 to the remediation system equipment shed.

VMT = (746 ft round trip) (mile/5280 ft) (2 vehicles) (12/year) = 3.39 mile/yr

PM₃₀ is presumed equivalent to TSP.

Source: AP-42, 13.2.2 Unpaved Roads
 Quality Rating = B



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: R Scott Liggett
Superior Environmental Remediation90
2101 Lincolnway E
Mishawaka, IN 46544

DATE: February 17, 2010

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Registration
089 - 28843 - 00552

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Sammy Sirhan, Environmental Svcs Dir
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07

Mail Code 61-53

IDEM Staff	LPOGOST 2/17/2010 Superior Environmental Remediation90, Inc. 089 - 28843 - 00552 (final)		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING	
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: CERTIFICATE OF MAILING ONLY	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		R Scott Liggett Superior Environmental Remediation90, Inc. 2101 Lincolnway E Mishawaka IN 46544 (Source CAATS) Via confirmed delivery										
2		Sammy Sirhan Environmental Svcs Dir Superior Environmental Remediation90, Inc. 2101 Lincolnway E Mishawaka IN 46544 (RO CAATS)										
3		Gary - Hobart Water Corp 650 Madison St, P.O. Box M486 Gary IN 46401-0486 (Affected Party)										
4		Lake County Health Department-Gary 1145 W. 5th Ave Gary IN 46402-1795 (Health Department)										
5		WJOB / WZVN Radio 6405 Olcott Ave Hammond IN 46320 (Affected Party)										
6		Laurence A. McHugh Barnes & Thornburg 100 North Michigan South Bend IN 46601-1632 (Affected Party)										
7		Lowell Town Council and Town Manager PO Box 157, 501 East Main Street Lowell IN 46356 (Local Official)										
8		Shawn Sobocinski 3229 E. Atlanta Court Portage IN 46368 (Affected Party)										
9		Ms. Carolyn Marsh Lake Michigan Calumet Advisory Council 1804 Oliver St Whiting IN 46394-1725 (Affected Party)										
10		Mark Coleman 9 Locust Place Ogden Dunes IN 46368 (Affected Party)										
11		Mr. Chris Hernandez Pipefitters Association, Local Union 597 8762 Louisiana St., Suite G Merrillville IN 46410 (Affected Party)										
12		Craig Hogarth 7901 West Morris Street Indianapolis IN 46231 (Affected Party)										
13		Lake County Commissioners 2293 N. Main St, Building A 3rd Floor Crown Point IN 46307 (Local Official)										
14		Anthony Copeland 2006 E. 140th Street East Chicago IN 46312 (Affected Party)										
15		Barbara G. Perez 506 Lilac Street East Chicago IN 46312 (Affected Party)										

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See Domestic Mail Manual R900, S913, and S921 for limitations of coverage on inured and COD mail. See International Mail Manual for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
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1		Robert 3733 Parrish Avenue East Chicago IN 46312 (Affected Party)										
2		Ms. Karen Kroczek 8212 Madison Ave Munster IN 46321-1627 (Affected Party)										
3		Calumet Township Trustee 35 E 5th Avenue Gary IN 46402 (Affected Party)										
4		Joseph Hero 11723 S Oakridge Drive St. John IN 46373 (Affected Party)										
5		Gary City Council 401 Broadway # 209 Gary IN 46402 (Local Official)										
6		Standard Bank & Trust Company PO Box 342 Lowell IN 46356 (Affected Party)										
7		Hallmark Construction 17151 Morse Street Lowell IN 46356 (Affected Party)										
8		Morrow Land Company, LLC 306 Woodland Circle Lowell IN 46356 (Affected Party)										
9		Paul Hoffman 8509 N. 100 E Lake Village IN 46349 (Affected Party)										
10		Heatherwood Holdings, LLC 110 E. Wilson Bridge Road Columbus OH 43085 (Affected Party)										
11		Novogroder/Lowell, LLC 875 N. Michigan Ave Chicago IL 60611 (Affected Party)										
12												
13												
14												
15												

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See Domestic Mail Manual R900, S913, and S921 for limitations of coverage on inured and COD mail. See International Mail Manual for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
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