



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204  
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

**Michael R. Pence**  
Governor

**Thomas W. Easterly**  
Commissioner

TO: Interested Parties / Applicant

DATE: July 16, 2013

RE: Rackham Service Corporation / 091 - 33320 - 00146

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 6/13/2013



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## REGISTRATION OFFICE OF AIR QUALITY

**Rackham Service Corporation  
112 Audley Street  
LaPorte, Indiana 46350**

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. R091-33320-00146   |  |
| Issued by:<br><br>Chrystal Wagner, Section Chief<br>Permits Branch<br>Office of Air Quality | For CAW<br>Issuance Date:<br>July 16, 2013 |

## 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

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The Registrant owns and operates a stationary soil vapor extraction and air sparging system.

|                              |   |
|------------------------------|---|
| Source Address:              | 112 Audley Street, LaPorte, Indiana 46350 |
| General Source Phone Number: | 219-362-2111                              |
| SIC Code:                    | 5541                                      |
| County Location:             | LaPorte County                            |
| Source Location Status:      | Attainment for all criteria pollutants    |
| Source Status:               | Registration                              |

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

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

- (a) One (1) soil vapor extraction and air sparging system, approved for construction in 2013. SVE1 will recover soil vapors from eleven (11) extraction wells, identified as SVE-1 through SVE-11 at a maximum rate of 400 cubic feet per minute.

## SECTION B

## GENERAL CONDITIONS

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

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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]

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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]

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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]

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- (a) All terms and conditions of permits established prior to Registration No. 091-33320-00146 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)]

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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)]**

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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)]**

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

**B.8 Preventive Maintenance Plan [326 IAC 1-6-3]**

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- (a) If required by specific condition(s) in Section D of this registration, the Registrant shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this registration or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Registrant's control, the PMPs cannot be prepared and maintained within the above time frame, the Registrant may extend the date an additional ninety (90) days provided the Registrant notifies:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

The Registrant shall implement the PMPs.

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Registrant to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.
- (c) To the extent the Registrant is required by 40 CFR Part 60 or 40 CFR Part 63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such OMM Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

**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 forty percent (40%) 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).

|                          |                             |
|--------------------------|-----------------------------|
| <b>Company Name:</b>     | Rackham Service Corporation |
| <b>Address:</b>          | 112 Audley Street           |
| <b>City:</b>             | LaPorte, IN 46350           |
| <b>Phone Number:</b>     | 219-362-2111                |
| <b>Registration No.:</b> | R091-33320-00146            |

- I hereby certify that Rackham Service Corporation is :
- I hereby certify that Rackham Service Corporation is :
- still in operation.
  - no longer in operation.
  - in compliance with the requirements of Registration No. R091-33320-00146
  - not in compliance with the requirements of Registration No. R091-33320-00146

|                                       |
|---------------------------------------|
| <b>Authorized Individual (typed):</b> |
| <b>Title:</b>                         |
| <b>Signature:</b>                     |
| <b>Phone Number:</b>                  |
| <b>Date:</b>                          |

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.

|                       |
|-----------------------|
| <b>Noncompliance:</b> |
|                       |
|                       |
|                       |
|                       |

**Indiana Department of Environmental Management  
Office of Air Quality**

Technical Support Document (TSD) for a Registration

|  |
|--|
| <b>Source Description and Location</b> |
|--|

|                          |  |
|--------------------------|--|
| <b>Source Name:</b>      | <b>Rackham Service Corporation</b>               |
| <b>Source Location:</b>  | <b>112 Audley Street, LaPorte, Indiana 46350</b> |
| <b>County:</b>           | <b>LaPorte</b>                                   |
| <b>SIC Code:</b>         | <b>5541</b>                                      |
| <b>Registration No.:</b> | <b>R091-33320-00146</b>                          |
| <b>Permit Reviewer:</b>  | <b>Madhurima Moulik</b>                          |

On June 18, 2013, the Office of Air Quality (OAQ) received an application from Rackham Service Corporation related to the construction and operation of a new soil vapor extraction (SVE) and air sparging (AS) system.

|                           |
|---------------------------|
| <b>Existing Approvals</b> |
|---------------------------|

There have been no previous approvals issued to this source.

|                                 |
|---------------------------------|
| <b>County Attainment Status</b> |
|---------------------------------|

The source is located in LaPorte County.

| Pollutant  | Designation   |
|--|---|
| SO <sub>2</sub>  | Better than national standards.   |
| CO   | Unclassifiable or attainment effective November 15, 1990.                       |
| O <sub>3</sub>   | Attainment effective July 19, 2007, for the 8-hour ozone standard. <sup>1</sup> |
| PM <sub>10</sub>   | Unclassifiable effective November 15, 1990.                                     |
| NO <sub>2</sub>  | Cannot be classified or better than national standards.                         |
| Pb   | Not designated.   |
| <sup>1</sup> Unclassifiable or attainment effective November 15, 1990, for the 1-hour standard which was revoked effective June 15, 2005.<br>Unclassifiable or attainment effective April 5, 2005, for PM <sub>2.5</sub> . |   |

- (a) **Ozone Standards**  
 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 ozone. LaPorte County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
  
- (b) **PM<sub>2.5</sub>**  
 LaPorte County has been classified as attainment for PM<sub>2.5</sub>. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM<sub>2.5</sub> emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct PM<sub>2.5</sub> significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct PM<sub>2.5</sub> and SO<sub>2</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

- (c) Other Criteria Pollutants  
 LaPorte 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, hazardous air pollutants, and greenhouse gases 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 Rackham Service Corporation on June 18, 2013, relating to the construction and operation of a soil vapor evaporation system.

The following is a list of the emission unit(s):

- (a) One (1) soil vapor extraction and air sparging system, approved for construction in 2013. SVE1 will recover soil vapors from eleven (11) extraction wells, identified as SVE-1 through SVE-11 at a maximum rate of 400 cubic feet per minute.

**Emission Calculations**

See Appendix A of this TSD for detailed emission calculations.

**Permit Level Determination – Registration**

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/<br>Emission Unit    | Potential To Emit of the Entire Source (tons/year) |             |             |                 |                 |              |      |                             |            |                  |
|------------------------------|--|-------------|-------------|-----------------|-----------------|--------------|------|-----------------------------|------------|------------------|
|                              | PM   | PM10*       | PM2.5*      | SO <sub>2</sub> | NO <sub>x</sub> | VOC          | CO   | GHGs as CO <sub>2</sub> e** | Total HAPs | Worst Single HAP |
| Dual Phase Extraction System | -  | -           | -           | -               | -               | 12.05        | -    | -                           | 12.05      | 9.34 (n-hexane)  |
| Paved Roads                  | 1.70   | 0.34        | 0.08        | -               | -               | -            | -    | -                           | -          | -                |
| <b>Total PTE</b>             | <b>1.70</b>  | <b>0.34</b> | <b>0.08</b> | -               | -               | <b>12.05</b> | -    | -                           | -          | -                |
| Exemptions Levels            | <5   | <5          | <5          | <10             | <10             | <10          | <25  | <100,000                    | <25        | <10              |
| Registration Levels**        | < 25   | < 25        | <25         | <25             | <25             | ≥10<br><25   | <100 | <100,000                    | <25        | <10              |

negl. = negligible  
 \*Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a regulated air pollutant".  
 \*\*The 100,000 CO<sub>2</sub>e threshold represents the Title V and PSD subject-to-regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of VOCs 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) 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)

- (a) 40 CFR Part 63, Subpart GGGGG (326 IAC 20-87) - National Emission Standards for Hazardous Air Pollutant for Site Remediation

This rule applies to site remediation that cleans up a remediation material, as defined in § 63.7957 at major sources of HAPs. This rule does not apply to the proposed site remediation because the source is an area source and the remediation is conducted at a gasoline service station in order to clean up remediation material from a leaking underground storage tank.

- (b) 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 registration.

##### Compliance Assurance Monitoring (CAM)

- (a) 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 LaPorte County, it has actual emissions of NO<sub>x</sub> 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 forty percent (40%) 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 non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (e) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)  
The source is subject to the requirements of 326 IAC 6-4, because vehicular traffic has the potential to emit fugitive particulate emissions. 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 does not have potential fugitive particulate emissions greater than 25 tons per year. Therefore, 326 IAC 6-5 does not apply.
- (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 12 (New Source Performance Standards)  
See Federal Rule Applicability Section of this TSD.
- (j) 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 June 18, 2013.

The construction and operation of this source shall be subject to the conditions of the attached proposed Registration No. R091-30320-00146. The staff recommends to the Commissioner that this Registration be approved.

### **IDEM Contact**

- (a) Questions regarding this proposed permit can be directed to Madhurima Moulik 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) 233-0868 or toll free at 1-800-451-6027 extension 3-0868.
- (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.in.gov/idem](http://www.in.gov/idem)

TSD Appendix A - Emission Calculations

Source Name: Rackham Service Corporation  
 Source Address: 112 Audley Street, LaPorte, Indiana 46350  
 Registration No.: R 091-33320-00146  
 Permit Reviewer: Madhurima Moulik  
 Date: 9-Jul-13

Soil vapor extraction system - VOCs

|  |            |         |
|--|------------|---------|
| Conditions   | Air Flow = | 400 cfm |
| c=constant at standard condition at 68 F, 29.2 inches of HG = 385260000 cuft / lb-mole |            |         |

| Contaminant                    | Conc. in ppmv | Molecular Weight (lb/lb-mole) | Emission Rate (lbs/hour) <sup>3</sup> | Emission Rate (tons/year) |
|--------------------------------|---------------|-------------------------------|---------------------------------------|---------------------------|
| Benzene                        | 80.1          | 78                            | 0.39                                  | 1.71                      |
| Ethylbenzene                   | 3.36          | 106                           | 0.02                                  | 0.10                      |
| N-Hexane                       | 397           | 86                            | 2.13                                  | 9.34                      |
| o-Xylene                       | 2.08          | 106                           | 0.01                                  | 0.06                      |
| Toluene                        | 33.8          | 92                            | 0.19                                  | 0.85                      |
| Soil Vapor PTE VOCs/Total HAPs |               |                               | 2.75                                  | 12.05                     |
| Highest Single HAP =           |               |                               |                                       | 9.34                      |

Methodology

Potential to Emit (PTE) in lbs/hr is calculated based on the equation below:

Using ideal gas conversion factor of 385.23 scf/lb-mole at 68 °F and 14.6 psia which was multiplied by 1,000,000 ppm/part since concentration was based on parts per million

$$\text{PTE lb/hr} = \frac{\text{conc., ppm}}{10^6 \text{ ppm/part}} \times \frac{\text{air flow, scfh}}{385.23 \text{ scf/lb-mol}} \times \text{mol. Wt of pollutant, lb-lb-mol}$$

**Appendix A: Emission Calculations  
Fugitive Dust Emissions - Paved Roads**

**Company Name: Rackham Service Corporation  
Source Address: 112 Audley Street, LaPorte, Indiana 46350  
Permit Number: R 091-33320-00146  
Source ID: 091-00146  
Reviewer: Madhurima Moulik  
Date: 9-Jul-13**

**Paved Roads at Industrial Site**

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Information (provided by source)

| Type                                    | Maximum number of vehicles per day | Number of one-way trips per day per vehicle | Maximum trips per day (trip/day) | Maximum Weight Loaded (tons/trip) | Total Weight driven per day (ton/day) | Maximum one-way distance (feet/trip) | Maximum one-way distance (mi/trip) | Maximum one-way miles (miles/day) | Maximum one-way miles (miles/yr) |
|---|------------------------------------|---|----------------------------------|-----------------------------------|---------------------------------------|--------------------------------------|------------------------------------|-----------------------------------|----------------------------------|
| Vehicle (entering plant) (one-way trip) | 400.0                              | 1.0   | 400.0                            | 5.0                               | 2000.0                                | 150                                  | 0.028                              | 11.4                              | 4147.7                           |
| Vehicle (leaving plant) (one-way trip)  | 400.0                              | 1.0   | 400.0                            | 5.0                               | 2000.0                                | 150                                  | 0.028                              | 11.4                              | 4147.7                           |
| <b>Total</b>                            |                                    |   | <b>800.0</b>                     |                                   | <b>4000.0</b>                         |                                      |                                    | <b>22.7</b>                       | <b>8295.5</b>                    |

Average Vehicle Weight Per Trip =  $\frac{5.0}{0.03}$  tons/trip  
Average Miles Per Trip =  $\frac{5.0}{0.03}$  miles/trip

Unmitigated Emission Factor,  $E_f = [k * (sL)^{0.91} * (W)^{1.02}]$  (Equation 1 from AP-42 13.2.1)

|           | PM    | PM10   | PM2.5   |   |
|-----------|-------|--------|---------|---|
| where k = | 0.011 | 0.0022 | 0.00054 | lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)  |
| W =       | 5.0   | 5.0    | 5.0     | tons = average vehicle weight (provided by source)  |
| sL =      | 9.7   | 9.7    | 9.7     | g/m <sup>2</sup> = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3) |

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor,  $E_{ext} = E_f * [1 - (p/4N)]$  (Equation 2 from AP-42 13.2.1)

Mitigated Emission Factor,  $E_{ext} = \frac{E_f * [1 - (p/4N)]}{N}$   
where p =  $\frac{125}{365}$  days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)  
N = 365 days per year

|  | PM    | PM10  | PM2.5  |         |
|--|-------|-------|--------|---------|
| Unmitigated Emission Factor, $E_f =$   | 0.449 | 0.090 | 0.0220 | lb/mile |
| Mitigated Emission Factor, $E_{ext} =$ | 0.411 | 0.082 | 0.0202 | lb/mile |

| Process                                 | Unmitigated PTE of PM (tons/yr) | Unmitigated PTE of PM10 (tons/yr) | Unmitigated PTE of PM2.5 (tons/yr) | Mitigated PTE of PM (tons/yr) | Mitigated PTE of PM10 (tons/yr) | Mitigated PTE of PM2.5 (tons/yr) |
|---|---------------------------------|-----------------------------------|------------------------------------|-------------------------------|---------------------------------|----------------------------------|
| Vehicle (entering plant) (one-way trip) | 0.93                            | 0.19                              | 0.05                               | 0.85                          | 0.17                            | 0.04                             |
| Vehicle (leaving plant) (one-way trip)  | 0.93                            | 0.19                              | 0.05                               | 0.85                          | 0.17                            | 0.04                             |
|   | <b>1.86</b>                     | <b>0.37</b>                       | <b>0.09</b>                        | <b>1.70</b>                   | <b>0.34</b>                     | <b>0.08</b>                      |

**Methodology**

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] \* [Maximum trips per day (trip/day)]  
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]  
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] \* [Maximum one-way distance (mi/trip)]  
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]  
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]  
Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] \* [Unmitigated Emission Factor (lb/mile)] \* (ton/2000 lbs)  
Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] \* [Mitigated Emission Factor (lb/mile)] \* (ton/2000 lbs)

**Abbreviations**

PM = Particulate Matter  
PM10 = Particulate Matter (<10 um)  
PM2.5 = Particle Matter (<2.5 um)  
PTE = Potential to Emit



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204  
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**Michael R. Pence**  
*Governor*

**Thomas W. Easterly**  
*Commissioner*

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

TO: Dennis Lantz  
Rackham Service Corporation  
6500 S US 35  
LaPorte, IN 46350

DATE: July 16, 2013

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

SUBJECT: Final Decision  
Registration  
091 - 33320 - 00146

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:  
Mohamed Asif Creek Run LLC Environmental Engineering  
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](mailto:jbrush@idem.IN.gov).

Final Applicant Cover letter.dot 6/13/2013

# Mail Code 61-53

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| Name and address of Sender |  | Indiana Department of Environmental Management<br>Office of Air Quality – Permits Branch<br>100 N. Senate<br>Indianapolis, IN 46204 |   |  |

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| 2    |                | LaPorte City Council/ Mayors Ofc. 801 Michigan Avenue LaPorte IN 46350 (Local Official)   |         |                 |                            |               |                 |          |          |          |                |
| 3    |                | LaPorte County Commissioners 555 Michigan Avenue # 202 LaPorte IN 46350 (Local Official)  |         |                 |                            |               |                 |          |          |          |                |
| 4    |                | Mr. Chris Hernandez Pipefitters Association, Local Union 597 8762 Louisiana St., Suite G Merrillville IN 46410 (Affected Party) |         |                 |                            |               |                 |          |          |          |                |
| 5    |                | LaPorte County Health Department County Complex, 4th Floor, 809 State St. LaPorte IN 46350-3329 (Health Department)             |         |                 |                            |               |                 |          |          |          |                |
| 6    |                | Mr. Dick Paulen Barnes & Thornburg 121 W Franklin Street Elkhart IN 46216 (Affected Party)                                      |         |                 |                            |               |                 |          |          |          |                |
| 7    |                | Mohamed Asif Creek Run LLC Environmental Engineering PO Box 114 Montpelier IN 47359 (Consultant)                                |         |                 |                            |               |                 |          |          |          |                |
| 8    |                |   |         |                 |                            |               |                 |          |          |          |                |
| 9    |                |   |         |                 |                            |               |                 |          |          |          |                |
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