



# 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](http://www.idem.IN.gov)

**Michael R. Pence**  
Governor

**Thomas W. Easterly**  
Commissioner

To: Interested Parties

Date: May 15, 2014

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

Source Name: Family Express #11

Permit Level: Registration

Permit Number: 091 - 34317 - 00151

Source Location: 3201 South Franklin Street, Michigan City, Indiana

Type of Action Taken: Initial Permit

## 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 matter referenced above.

The final decision is available on the IDEM website at: <http://www.in.gov/apps/idem/caats/>  
To view the document, select Search option 3, then enter permit 34317.

If you would like to request a paper copy of the permit document, please contact IDEM's central file room:

Indiana Government Center North, Room 1201  
100 North Senate Avenue, MC 50-07  
Indianapolis, IN 46204  
Phone: 1-800-451-6027 (ext. 4-0965)  
Fax (317) 232-8659

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).

*(continues on next page)*

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.



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## REGISTRATION OFFICE OF AIR QUALITY

**Family Express #11  
3201 South Franklin Street  
Michigan City, Indiana 46360**

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. R091-34317-00151	
Issued by:  Chrystal Wagner, Section Chief Permits Branch Office of Air Quality	Issuance Date: May 15, 2014

## 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 system.

Source Address:	3201 South Franklin Street, Michigan City, Indiana 46360
General Source Phone Number:	(219) 462-0144
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) high vacuum dual phase extraction (DPE)/air sparge (AS) remediation system, identified as AS/SVE-1, approved in 2014 for construction, with a maximum water flow rate of twenty (20) gallons per minute for air stripping and one hundred fifty (150) cubic feet per minute air flow for soil vacuum extraction, and exhausting to the atmosphere.
- (b) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

## 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. R091-34317-00151 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 5-1-1 (Applicability) and 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).

## SECTION D.1

## OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (a) One (1) high vacuum dual phase extraction (DPE)/air sparge (AS) remediation system, identified as AS/VPE-1, approved in 2014 for construction, with a maximum water flow rate of twenty (20) gallons per minute for air stripping and one hundred fifty (150) cubic feet per minute air flow for soil vacuum extraction, and exhausting to the atmosphere.
- (b) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]

#### D.1.1 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.

#### D.1.2 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).

#### D.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]

Within ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, a Preventive Maintenance Plan is required for this facility and its control device. Section B - Preventive Maintenance Plan contains the Registrant's obligation with regard to the preventive maintenance plan required by this condition.

**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>	Family Express #11
<b>Address:</b>	3201 South Franklin Street
<b>City:</b>	Michigan City, Indiana 46360
<b>Phone Number:</b>	(219) 462-0144
<b>Registration No.:</b>	R091-34317-00151

I hereby certify that Family Express #11 is :

- still in operation.
- no longer in operation.
- in compliance with the requirements of Registration No. R091-34317-00151.
- not in compliance with the requirements of Registration No. R091-34317-00151.

I hereby certify that Family Express #11 is :

<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

### Source Description and Location

**Source Name:** Family Express #11  
**Source Location:** 3201 South Franklin Street, Michigan City, Indiana 46360  
**County:** LaPorte  
**SIC Code:** 5541  
**Registration No.:** R091-34317-00151  
**Permit Reviewer:** Donald McQuigg

On March 18, the Office of Air Quality (OAQ) received an application from Family Express #11 related to the construction and operation of a high vacuum dual phase extraction (DPE) system to remediate petroleum hydrocarbon contaminated soil and groundwater.

### Existing Approvals

There have been no previous approvals issued to this source.

### County Attainment Status

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>	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. <sup>1</sup>
PM <sub>2.5</sub>	Unclassifiable or attainment effective April 5, 2005, for the annual PM <sub>2.5</sub> standard.
PM <sub>2.5</sub>	Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM <sub>2.5</sub> standard.
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.
<sup>1</sup> Unclassifiable or attainment effective November 15, 1990, for the 1-hour standard which was revoked effective June 15, 2005.	

- (a) **Ozone Standards**  
 Volatile organic compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) 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 NO<sub>x</sub> 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 NO<sub>x</sub> 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>, SO<sub>2</sub>, and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (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 Family Express #11 on March 18, 2014, relating to the construction of a high vacuum dual phase extraction (DPE) system to remediate petroleum hydrocarbon contaminated soil and groundwater.

The following is a list of emission units and pollution control device:

- (a) One (1) high vacuum dual phase extraction (DPE)/air sparge (AS) remediation system, identified as AS/SVE-1, approved in 2014 for construction, with a maximum water flow rate of twenty (20) gallons per minute for air stripping and one hundred fifty (150) cubic feet per minute air flow for soil vacuum extraction, and exhausting to the atmosphere.
- (b) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

**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**

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	PM <sub>10</sub> *	PM <sub>2.5</sub> *	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHG as CO <sub>2</sub> e**	Total HAPs	Worst Single HAP
AS/SVE-1	-	-	-	-	-	17.36	-	-	9.67	7.21 (1,4-Dioxane)
Fugitive Emissions: paved roads and parking lots	0.25	0.05	0.01	-	-	-	-	-	-	-
<b>Total PTE of Entire Source</b>	<b>0.25</b>	<b>0.05</b>	<b>0.01</b>	-	-	<b>17.36</b>	-	-	<b>9.67</b>	<b>7.21 (1,4-Dioxane)</b>
Exemptions Levels**	< 5	< 5	< 5	< 10	< 10	< 10	< 25	< 100,000	< 25	< 10
Registration Levels**	< 25	< 25	< 25	< 25	< 25	< 25	< 100	< 100,000	< 25	< 10

Process/ Emission Unit	Potential To Emit of the Entire Source (tons/year)									
	PM	PM <sub>10</sub> *	PM <sub>2.5</sub> *	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHG as CO <sub>2</sub> e**	Total HAPs	Worst Single HAP
negl. = negligible *Under the Part 70 Permit program (40 CFR 70), PM <sub>10</sub> and PM <sub>2.5</sub> , 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 VOC is within the range 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.
- (c) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) greenhouse gases (GHGs) is less than the Title V subject-to-regulation threshold of one hundred thousand (100,000) tons of CO<sub>2</sub> equivalent (CO<sub>2</sub>e) emissions per year. Therefore, the source is 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 Registration.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Equipment Leaks, 40 CFR 63.160, Subpart H, are not included in the permit for the extraction system pumps, connectors, sampling system, and control device. The extraction system will operate in hazardous air pollutant service more than 300 hours per year; however, the source is not subject to the provisions of a specific subpart in 40 CFR, part 63. Therefore, 40 CFR 63.160, Subpart H does not apply.
- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Site Remediation, 40 CFR 63.7880, Subpart GGGGG (326 IAC 20-87-1), are not included in the Registration. Pursuant to 40 CFR 63.7881(b)(4), site remediation conducted at a gasoline service station to clean up material from a leaking underground storage tank is exempt from the requirements of this subpart.
- (d) 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)

- (e) 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

**326 IAC 2-5.1-2 (Registrations)**

Registration applicability is discussed under the Permit Level Determination – Registration section above.

**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.

**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) and it does not emit lead into the ambient air at levels equal to or greater than five (5) tons per year. The source is located in LaPorte County; however, VOC and NOx emissions are each less than twenty-five (25) tons per year. Therefore, 326 IAC 2-6 does not apply.

**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 nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**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.

**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 twenty-five (25) tons per year. Therefore, 326 IAC 6-5 does not apply.

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

The AS/SVE-1 remediation system at this source is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from AS/SVE-1 is less than twenty-five (25) tons per year.

### 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 March 18, 2014.

The construction and operation of this source shall be subject to the conditions of the attached proposed Registration No. R091-34317-00151. The staff recommends to the Commissioner that this Registration be approved.

<b>IDEM Contact</b>
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- (a) Questions regarding this proposed registration can be directed to Donald McQuigg 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) 234-4240 or toll free at 1-800-451-6027 extension 4-4240.
- (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)

**Appendix A: Emission Calculations  
Summary of Potential to Emit**

**Company Name:** Family Express #11  
**Address City IN Zip:** 3201 South Franklin Street, Michigan City, Indiana 46360  
**Registration No.:** R091-34317-00151  
**Reviewer:** Donald McQuigg  
**Date:** April 15, 2014

Emission Units	Unlimited Potential To Emit (tons/year)									
	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NOx	VOC	CO	GHG as CO <sub>2</sub> e	Total HAP	Single Worst HAP
Remediation system AS/SVE-1 <sup>(1)</sup>	-	-	-	-	-	17.36	-	-	9.67	7.21 (1,4-Dioxane)
Fugitive dust <sup>(2)</sup>	0.25	0.05	0.01	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>0.25</b>	<b>0.05</b>	<b>0.01</b>	-	-	<b>17.36</b>	-	-	<b>&lt;25</b>	<b>&lt;10 (1,4-Dioxane)</b>

<sup>(1)</sup> worst case VOC emissions using extraction well SVE-1 data.

<sup>(2)</sup> mitigated PTE

"-" denotes designated pollutant not emitted by the emission unit

**Appendix A: Emission Calculations  
VOC/HAP Emissions from AS/SVE-1**

**Company Name:** Family Express #11  
**Address City IN Zip:** 3201 South Franklin Street, Michigan City, Indiana 46360  
**Registration No.:** R091-34317-00151  
**Reviewer:** Donald McQuigg  
**Date:** April 15, 2014

**PTE for AS/SVE-1 remediation system:\***

Air Flow = 150 cfm

c=constant at standard condition at 68 F, 29.2 inches of Hg = 385,260,000 ppmv cu ft / lb-mole

Contaminant	VOC/HAP Concentration (ppmv)**	Molecular Weight (lb/lb-mol)	VOC/HAP Emission Rate (lbs/hour)	VOC Emission Rate (tons/year)	HAP Emission Rate (tons/year)
4-Ethyltoluene	20.0	120.192	0.0562	0.2460	
4-Methyl-2-pentanone	100	100.159	0.2340	1.0248	
1,1,1-Trichloroethane	20.0	133.404	0.0623	0.2730	
1,1,2,2-Tetrachloroethane	0.010	167.849	0.0000	0.0002	
<b>1,1,2-Trichloroethane</b>	0.008	133.404	0.0000	<b>0.0001</b>	0.0001
1,1-Dichloroethane	0.200	98.949	0.0005	0.0020	
1,1-Dichloroethene	10.0	96.943	0.0226	0.0992	
1,1-Dichloropropene	2.00	110.97	0.0052	0.0227	
<b>1,2,4-Trichlorobenzene</b>	0.020	181.45	0.0001	<b>0.0004</b>	0.0004
1,2,4-Trimethylbenzene	0.200	120.192	0.0006	0.0025	
1,2-Dibromoethane	0.0008	187.861	0.0000	0.00002	
1,2-Dichlorobenzene	2.00	147.002	0.0069	0.0301	
1,2-Dichloroethane	0.020	98.949	0.0000	0.0002	
1,2-Dichloropropane	0.020	112.986	0.0001	0.0002	
1,2,5-Trimethylbenzene	0.200	120.192	0.0006	0.0025	
<b>1,3-Butadiene</b>	0.020	54.091	0.0000	<b>0.0001</b>	0.0001
1,3-Dichlorobenzene	2.000	147.002	0.0069	0.0301	
<b>1,4-Dichlorobenzene</b>	0.020	147.002	0.0001	<b>0.0003</b>	0.0003
<b>1,4-Dioxane</b>	800	88.105	1.6466	<b>7.2120</b>	7.2120
2-Butanone	200	72.106	0.3369	1.4756	
2-Hexanone	1.00	100.159	0.0023	0.0102	
<b>Benzene</b>	2.7	78.112	0.0050	<b>0.0217</b>	0.0217
<b>Benzyl Chloride</b>	0.016	126.583	0.0000	<b>0.0002</b>	0.0002
Bromodichloromethane	0.016	163.829	0.0001	0.0003	
<b>Bromoform</b>	0.200	252.731	0.0012	<b>0.0052</b>	0.0052
Bromomethane	0.200	94.939	0.0004	0.0019	
<b>Carbon Disulfide</b>	20.0	76.141	0.0356	<b>0.1558</b>	0.1558
<b>Carbon Tetrachloride</b>	0.020	153.823	0.0001	<b>0.0003</b>	0.0003
<b>Chlorobenzene</b>	1.0	112.557	0.0026	<b>0.0115</b>	0.0115
Chloroethane	1.0	64.514	0.0015	0.0066	
<b>Chloroform</b>	0.034	119.378	0.0001	<b>0.0004</b>	0.0004
Chloromethane	2.0	50.445	0.0024	0.0103	
cis-1,2-Dichloroethene	1.0	96.943	0.0023	0.0099	
cis-1,3-Dichloropropene	0.20	110.97	0.0005	0.0023	
Cyclohexane	320.0	84.160	0.6291	2.7556	
Dibromochloromethane	0.020	208.280	0.0001	0.0004	
Ethylacetate	100.0	88.105	0.2058	0.9015	

continued next page

Sub Total VOC = 14.316  
 Sub Total HAP = 7.41

**Appendix A: Emissions Calculations**  
**HAP Emissions from AS/SVE-1**

**Company Name:** Family Express #11  
**Address City IN Zip:** 3201 South Franklin Street, Michigan City, Indiana 46360  
**Registration No.:** R091-34317-00151  
**Reviewer:** Donald McQuigg  
**Date:** April 15, 2014

**PTE for AS/SVE-1 remediation system\* (continued):**

Air Flow = 150 cfm

c=constant at standard condition at 68 F, 29.2 inches of Hg = 385,260,000 ppmv cu ft / lb-mole

Contaminant	VOC/HAP Concentration (ppmv)**	Molecular Weight (lb/lb-mol)	VOC/HAP Emission Rate (lbs/hour)	VOC Emission Rate (tons/year)	HAP Emission Rate (tons/year)
<b>Ethylbenzene</b>	1.32	106.165	0.0033	<b>0.0143</b>	0.0143
<b>Hexachloro-1,3-butadiene</b>	0.020	260.760	0.0001	<b>0.0005</b>	0.0005
isooctane	20.0	114.229	0.0534	0.2338	
<b>m,p-Xylene</b>	2.0	106.165	0.0050	<b>0.0217</b>	0.0217
<b>Methyl-t-butyl ether</b>	2.0	88.148	0.0041	<b>0.0180</b>	0.0180
n-Heptane	20.0	100.202	0.0468	0.2051	
n-Hexane	10.0	86.175	0.0201	0.0882	
<b>o-Xylene</b>	2.0	106.165	0.0050	<b>0.0217</b>	0.0217
Propylene	20.0	42.080	0.0197	0.0861	
<b>Tetrachloroethylene</b>	0.09	165.833	0.0004	<b>0.0016</b>	0.0016
Tetrahydrofuran	20.0	72.106	0.0337	0.1476	
<b>Styrene</b>	20.0	104.149	0.0487	<b>0.2131</b>	0.2131
<b>Toluene</b>	200.0	92.138	0.4305	<b>1.8855</b>	1.8855
trans-1,2-Dichloroethylene	2.0	96.943	0.0045	0.0198	
trans-1,3-Dichloropropylene	0.2	110.97	0.0005	0.0023	
<b>Trichloroethylene</b>	0.040	131.388	0.0001	0.0005	
<b>Vinyl Acetate</b>	10.0	86.089	0.0201	<b>0.0881</b>	0.0881
<b>Vinyl Bromide</b>	0.02	106.949	0.0000	<b>0.0002</b>	0.0002
<b>Vinyl Chloride</b>	0.10	62.949	0.0001	<b>0.0006</b>	0.0006

Total VOC = 17.365  
 Total HAP = 9.67  
 Highest Single HAP = 7.21 1,4-Dioxane

\* The VOC/HAP emissions are from the worst case extraction well (SVE-1) within the project radius of influence. The VOC/HAP concentrations were determined by EPA Method TO-15.

\*\* VOC/HAP concentration as parts per million by volume

**Methodology**

VOC/HAP Emission Rate (lbs/hr) = VOC/HAP Concentration (ppmv) \* VOC/HAP Molecular Weight (lb/lb-mol) \* Air Flow (cu ft/min)

\*60 min/hr\* 1/Constant (ppmv cub ft/lb-mol)

VOC/HAP Emission Rate (tons/yr) = HAP Emission Rate (lbs/hr) \* 8760 hr/yr \* 1 ton/2000 lbs

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

**Company Name:** Family Express #11  
**Address City IN Zip:** 3201 South Franklin Street, Michigan City, Indiana 46360  
**Registration No.:** R091-34317-00151  
**Reviewer:** Donald McQuigg  
**Date:** April 15, 2014

**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	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)	1100	1.0	1100.0	5.0	5500.0	200	0.038	41.7	15208.3
Vehicle (leaving plant) (one-way trip)	1100	1.0	1100.0	5.0	5500.0	200	0.038	41.7	15208.3
<b>Total</b>			<b>2200.0</b>		<b>11000.0</b>			<b>83.3</b>	<b>30416.7</b>

Average Vehicle Weight Per Trip =  $\frac{5.0}{1.0}$  tons/trip  
 Average Miles Per Trip =  $\frac{200}{1.0}$  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/mi = 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 =	0.6	0.6	0.6	g/m <sup>2</sup> = Ubiquitous Baseline Silt Loading Values of paved roads (Table 13.2.1-3 for summer months)

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

Mitigated Emission Factor,  $E_{ext} = E_f * [1 - (p/4N)]$   
 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, $E_f =$	0.036	0.007	0.002	lb/mile
Mitigated Emission Factor, $E_{ext} =$	0.033	0.007	0.002	lb/mile
Dust Control Efficiency =	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

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)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Vehicle (entering plant) (one-way trip)	0.27	0.05	0.01	0.25	0.05	0.01	0.12	0.02	0.01
Vehicle (leaving plant) (one-way trip)	0.27	0.05	0.01	0.25	0.05	0.01	0.12	0.02	0.01
<b>Total</b>	<b>0.54</b>	<b>0.11</b>	<b>0.03</b>	<b>0.50</b>	<b>0.10</b>	<b>0.02</b>	<b>0.25</b>	<b>0.05</b>	<b>0.01</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)
- Controlled PTE (tons/yr) = [Mitigated PTE (tons/yr)] \* [1 - Dust Control Efficiency]

**Abbreviations**

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



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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*Commissioner*

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TO: Tom Navarre  
Family Express #11  
213 S State Road 49  
Valparaiso, IN 46383

DATE: May 15, 2014

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

SUBJECT: Final Decision  
Registration  
091 - 34317 - 00151

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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3		Mr. Chris Hernandez Pipefitters Association, Local Union 597 8762 Louisiana St., Suite G Merrillville IN 46410 (Affected Party)									
4		Michigan City-City Council and Mayors Office 100 E. Michigan Blvd. Michigan City IN 46360 (Local Official)									
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		State Farm Insurance 107 West Coolspring Avenue Michigan City IN 46360 (Affected Party)									
9		Dr. Craig McEwen, D.D.S. 3012 South Franklin Street Michigan City IN 46360 (Affected Party)									
10		Michigan City Park N Stop, LLC 3207 South Franklin Street Michigan City IN 46360 (Affected Party)									
11		Carlsons Drive In 118 West Coolspring Avenue Michigan City IN 46360 (Affected Party)									
12		Bubbles Ice Cream Parlor 115 West Coolspring Avenue Michigan City IN 46360 (Affected Party)									
13		Michael A & Tricia L Kuiken 100 Euclid Avenue Michigan City IN 46360 (Affected Party)									
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