



*Mitchell E. Daniels, Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
(800) 451-6027  
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TO: Interested Parties / Applicant  
DATE: June 30, 2005  
RE: Gill's Quick Mart / 089-21375-00005  
FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

### Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures  
FNPER-AM.dot 1/10/05



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

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June 30, 2005

Mr. Ryan M. Roberts  
Gill's Quick Mart  
EFI Global, 6405 Castleway Court  
Indianapolis, IN 46250

Dear Mr. Roberts:

Re: Exempt Construction and Operation Status,  
**089-21375-00496**

The application from Gill's Quick Mart, received on June 2, 2005, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following soil and ground water remediation operation, to be located at 3201 E. 73rd Avenue, Merrillville, Indiana, is classified as exempt from air pollution permit requirements:

- (a) Vacuum pump, identified as E1, with a maximum capacity of three hundred fifty (350) cubic feet per minute, and exhausting to stack S1.
- (b) Air stripper, identified as E2, with a maximum capacity of thirty (30) gallons per minute, and exhausting to stack S2.

This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Branch Chief  
Permits Branch  
Office of Air Quality

AB/EVP

cc: File - Lake County  
Lake County Health Department  
Air Compliance – Ramesh Tejuja  
Northwest Regional Office  
Permit Tracking  
Compliance Data Section

## Indiana Department of Environmental Management Office of Air Quality

### Technical Support Document (TSD) for an Exemption

#### Source Background and Description

<b>Source Name:</b>	Gill's Quick Mart
<b>Source Location:</b>	3201 E. 73 <sup>rd</sup> Avenue, Merrillville, IN 46410
<b>County:</b>	Lake
<b>SIC Code:</b>	5541
<b>Operation Permit No.:</b>	089-21375-00496
<b>Permit Reviewer:</b>	Alic Bent / EVP

The Office of Air Quality (OAQ) has reviewed an application from Gill's Quick Mart relating to the construction and operation of a soil and groundwater remediation system.

#### New Emission Units and Pollution Control Equipment

The source consists of the following new emission units and pollution control devices during this review process:

- (a) Vacuum pump, identified as E1, with a maximum capacity of three hundred fifty (350) cubic feet per minute, and exhausting to stack S1.
- (b) Air stripper, identified as E2, with a maximum capacity of thirty (30) gallons per minute, and exhausting to stack S2.

#### Existing Approvals

The source has no existing approvals.

#### Enforcement Issue

There are no enforcement actions pending.

#### Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

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 2, 2005.

**Potential To Emit**

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

Pollutant	Potential To Emit (tons/year)
PM	0.00
PM-10	0.00
SO <sub>2</sub>	0.00
VOC	1.07
CO	0.00
NO <sub>x</sub>	0.00

HAPs	Potential To Emit (tons/year)
Methyl ter-butyl ether	0.01
Benzene	0.03
Toluene	0.35
Ethylbenzene	0.08
Xylene	0.58
Naphthalene	0.02
Total	0.279

- (a) The potential to emit as defined in 326 IAC 2-1.1-1 (16) of VOC, a single HAP, and the combination of HAPs are less than 10, 1, and 2.5 tons per year, respectively. Therefore, pursuant to 326 IAC 2-5.1-1(1), this source is exempt from the requirement to obtain a registration or permit. (Please refer Appendix A, Page 1 for emission calculations).

**County Attainment Status**

The source is located in Lake County.

Pollutant	Status
PM-10	Attainment
SO <sub>2</sub>	Primary Nonattainment
NO <sub>2</sub>	Attainment
1-hr Ozone	Severe Nonattainment
8-hr Ozone	Moderate Nonattainment
CO	Attainment
Lead	Attainment

**Part 70 Permit Determination**

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

### **Federal Rule Applicability**

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

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

326 IAC 2-6 (Emission Reporting)

This source is not a Title V source. Therefore, 326 IAC 2-6 does not apply.

### **State Rule Applicability - Individual Facilities**

326 IAC 8-1-6 (New Facilities; General VOC Reduction Requirements)

This rule applies to facilities located anywhere in the State that were constructed on or after January 1, 1980, which have a potential to emit (PTE) VOC at 25 tons per year or more, and which are not otherwise regulated by another provision of Article 8. This groundwater remediation system does not have a PTE VOC at 25 tons per year or more. Therefore, 326 IAC 8-1-6 does not apply.

326 IAC 14-1-1 (Emission standards for hazardous air pollutants)

Pursuant to 326 IAC 14-1-1, the provisions of 326 IAC 14 apply to the source for which a standard is prescribed under 326 IAC 14. There are no standards prescribed for this source under 326 IAC 14, therefore the source is not subject to the requirements of 326 IAC 14.

326 IAC 20-1-1 (Hazardous air pollutants)

Pursuant to 326 IAC 20-1-2, the provisions of 326 IAC 20 apply to the source for which a standard is prescribed under 326 IAC 20. There are no standards prescribed for this source under 326 IAC 20, therefore the source is not subject to the requirements of 326 IAC 20.

### **Conclusion**

The construction and operation of this soil and groundwater remediation system shall be subject to the conditions of the attached proposed Exemption 089-21375-00496.

**Appendix A: Emission Calculations**  
**Soil and Groundwater Remediation Emissions**

**Company Name: Gill's Quick Mart**  
**Address City State Zip: 3201 E. 73rd Avenue, Merrillville, Indiana 46410**  
**Permit Number: 089-21375-00496**  
**Reviewer: Alic Bent/EVP**  
**Date: 7/1/2005**

**Data from Subsurface Investigation**

**Calculation of Contaminant Mass Adsorbed to Soil in Vadose Zone**

Area of Soil Plume as defined by Site Investigation = 5,200 ft<sup>2</sup>  
Average Vadose Zone Thickness as defined by Site Investigation = 5.5 ft  
Volume of Impacted Vadose Zone Soil (5,200 ft<sup>2</sup> × 5.5 ft) = 28,600 ft<sup>3</sup>

<u>Volatile Organic Compound</u>	<u>Average Concentration (µg/kg)</u>
Benzene	16,508
Toluene	235,584
Ethylbenzene	52,673
Xylene	399,024
MTBE	911
Naphthalene	14,520
<b>Total</b>	<b>719,220</b>

$$\begin{aligned} \text{Contaminant Mass} &= C_{\text{avg}} \times V_{\text{soil}} \times \rho_{\text{soil}} \\ &= (719,220 \mu\text{g}_{\text{voc}}/\text{kg}_{\text{soil}}) \times (28,600 \text{ ft}^3_{\text{soil}}) \times (100 \text{ lb}_{\text{soil}}/\text{ft}^3_{\text{soil}}) \times (1 \text{ kg}_{\text{soil}}/2.2 \text{ lb}_{\text{soil}}) \\ &= (9.35 \times 10^{11} \mu\text{g}_{\text{voc}}) \times (1 \text{ g}/10^6 \mu\text{g}) \times (1 \text{ lb}/453.6 \text{ g}) \\ &= 2,062 \text{ lb}_{\text{voc}} = 1.03 \text{ ton}_{\text{voc}} \end{aligned}$$

**Calculation of Contaminant Mass Dissolved in Groundwater**

Area of Groundwater Plume as defined by Site Investigation = 11,700 ft<sup>2</sup>  
Average Saturated Thickness as defined by Site Investigation = 6 ft  
Volume of Impacted Groundwater (11,700 ft<sup>2</sup> × 6 ft) = 70,200 ft<sup>3</sup>

<u>Volatile Organic Compound</u>	<u>Average Concentration (µg/kg)</u>
Benzene	4,376
Toluene	3,749
Ethylbenzene	1,232
Xylene	5,890
MTBE	3,900
Naphthalene	252
<b>Total</b>	<b>19,399</b>

$$\begin{aligned} \text{Contaminant Mass} &= C_{\text{avg}} \times V_{\text{groundwater}} \times \rho_{\text{groundwater}} \\ &= (19,399 \mu\text{g}_{\text{voc}}/\text{L}_{\text{gw}}) \times (70,200 \text{ ft}^3_{\text{gw}}) \times (28.32 \text{ L}_{\text{gw}}/\text{ft}^3_{\text{gw}}) \\ &= (3.86 \times 10^{10} \mu\text{g}_{\text{voc}}) \times (1 \text{ g}/10^6 \mu\text{g}) \times (1 \text{ lb}/453.6 \text{ g}) \\ &= 85 \text{ lb}_{\text{voc}} = 0.04 \text{ ton}_{\text{voc}} \end{aligned}$$

Note: Regardless of the capacity of the remediation system, the maximum mass of VOCs that can be emitted cannot exceed the mass of VOCs present in the subsurface. Therefore, the mass of VOCs quantified in the subsurface is representative of the maximum PTE from the source.