



Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

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

TO: Interested Parties / Applicant  
DATE: March 5, 2007  
RE: SIGECO / 083-22648-00002  
FROM: Nisha Sizemore  
Chief, Permits Branch  
Office of Air Quality

### Notice of Decision: Approval - Effective Immediately

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 13-15-5-3, this permit 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.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require 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 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  
FNPER.dot 03/23/06



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## MINOR SOURCE OPERATING PERMIT RENEWAL OFFICE OF AIR QUALITY

**SIGECO - Ohio Valley Hub, LLC**  
**County Road SE 400 E**  
**Monroe City, Indiana 47557**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

Operation Permit No.: 083-22648-00002	
Issued by: Original Signed By:  Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: March 5, 2007  Expiration Date: March 5, 2012

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## SECTION A

## SOURCE SUMMARY

This permit 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 Permittee 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 Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

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The Permittee owns and operates a stationary natural gas compressor station.

Source Address:	Co. Road SE 400 E, Monroe City, Indiana 47557
Mailing Address:	One Vectren Square, Evansville, Indiana 47708
Phone Number:	812-491-4000
SIC Code:	4931
County Location:	Knox
County Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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

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This stationary source is approved to operate the following emissions units and pollution control devices:

Two natural gas-fired, spark injection internal combustion engines constructed in 2000, for natural gas compression, identified as OVH No. 1 and OVH No. 2, each rated at 1450 brake horsepower (bhp) and 1500 revolutions per minute (rpm), with a maximum capacity of 12.1 million British thermal units per hour (MMBtu/hr), with low emission combustion design for NO<sub>x</sub>, and exhausting to stacks No. 1 and 2, respectively.

## **SECTION B GENERAL CONDITIONS**

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

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Terms in this permit 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 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]**

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- (a) This permit, 083-22648-00002, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

### **B.3 Term of Conditions [326 IAC 2-1.1-9.5]**

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Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

### **B.4 Enforceability**

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Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### **B.5 Severability**

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The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### **B.6 Property Rights or Exclusive Privilege**

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This permit does not convey any property rights of any sort or any exclusive privilege.

### **B.7 Duty to Provide Information**

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- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

### **B.8 Certification**

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- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall

state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

**B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]**

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- (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 permit.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:  
  
Compliance Branch, Office of Air Quality  
Indiana Department of Environmental Management  
100 North Senate Avenue  
Indianapolis, Indiana 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.10 Preventive Maintenance Plan [326 IAC 1-6-3]**

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- (a) The Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) for the source as described in 326 IAC 1-6-2. At a minimum, the PMPs shall include:
  - (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.
- (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 Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

**B.11 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

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- (a) All terms and conditions of permits established prior to 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 permit.

**B.12 Termination of Right to Operate [326 IAC 2-6.1-7(a)]**

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The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

**B.13 Permit Renewal [326 IAC 2-6.1-7]**

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(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(2) 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.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.

**B.14 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]**

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(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 2-6.1-6(d)]

**B.15 Source Modification Requirement**

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A modification, construction, or reconstruction is governed by 326 IAC 2.

**B.16 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)] [IC 13-14-2-2] [IC13-17-3-2][IC 13-30-3-1]**

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Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.17 Transfer of Ownership or Operation [326 IAC 2-6.1-6]**

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- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:  
  
Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251  
  
The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

**B.18 Annual Fee Payment [326 IAC 2-1.1-7]**

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- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.

- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

**B.19 Credible Evidence [326 IAC 1-1-6]**

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For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

### Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

**C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

**C.2 Permit Revocation [326 IAC 2-1.1-9]**

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

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (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 permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

**C.3 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 permit:

- (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 non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]**

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

**C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]**

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

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

The Permittee 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).

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

## Testing Requirements [326 IAC 2-6.1-5(a)(2)]

### C.8 Performance Testing [326 IAC 3-6]

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- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

## Compliance Requirements [326 IAC 2-1.1-11]

### C.9 Compliance Requirements [326 IAC 2-1.1-11]

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The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

## Compliance Monitoring Requirements

### C.10 Compliance Monitoring [326 IAC 2-1.1-11]

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Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

### C.11 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]

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Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

### C.12 Instrument Specifications [326 IAC 2-1.1-11]

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- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an

alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

### **Corrective Actions and Response Steps**

#### **C.13 Actions Related to Noncompliance Demonstrated by a Stack Test**

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected emissions unit while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that re-testing in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the re-testing deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to non-compliant stack tests.

The response action documents submitted pursuant to this condition do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1.

### **Record Keeping and Reporting Requirements**

#### **C.14 Malfunctions Report [326 IAC 1-6-2]**

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Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

#### **C.15 General Record Keeping Requirements [326 IAC 2-6.1-5]**

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- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

**C.16 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-5] [IC 13-14-1-13]**

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- (a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit 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.
- (c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1(1).
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

## SECTION D.1

## EMISSIONS UNIT OPERATION CONDITIONS

### Facility Description:

Two natural gas-fired, spark injection internal combustion engines constructed in 2000, for natural gas compression, identified as OVH No. 1 and OVH No. 2, each rated at 1450 brake horsepower (bhp) and 1500 revolutions per minute (rpm), with a maximum capacity of 12.1 million British thermal units per hour (MMBtu/hr), with low emission combustion design for NO<sub>x</sub>, and exhausting to stacks No. 1 and 2, respectively.

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

### Compliance Determination Requirements

#### D.1.1 Testing Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1]

Within 180 days after issuance of this MSOP and in order to verify the emission factor used and to demonstrate that the potential to emit of NO<sub>x</sub> for this source is less than 100 tons per year, the Permittee shall perform a stack test for one of the internal combustion engines identified as OVH No. 1 and OVH No. 2 using methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C- Performance Testing.

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

**MINOR SOURCE OPERATING PERMIT  
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

<b>Company Name:</b>	SIGECO - Ohio Valley Hub, LLC
<b>Address:</b>	County Road SE 400 E
<b>City:</b>	Monroe City, Indiana 47557
<b>Phone #:</b>	812-491-4562
<b>MSOP #:</b>	083-22648-00002

I hereby certify that SIGECO - Ohio Valley Hub, LLC is

- still in operation.
- no longer in operation.

I hereby certify that SIGECO - Ohio Valley Hub, LLC is

- in compliance with the requirements of MSOP 083-22648-00002.
- not in compliance with the requirements of MSOP 083-22648-00002.

<b>Authorized Individual (typed):</b>
<b>Title:</b>
<b>Signature:</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>

**MALFUNCTION REPORT**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
FAX NUMBER - 317 233-6865**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6  
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?\_\_\_\_\_, 25 TONS/YEAR SULFUR DIOXIDE ?\_\_\_\_\_, 25 TONS/YEAR NITROGEN OXIDES?\_\_\_\_\_, 25 TONS/YEAR VOC ?\_\_\_\_\_, 25 TONS/YEAR HYDROGEN SULFIDE ?\_\_\_\_\_, 25 TONS/YEAR TOTAL REDUCED SULFUR ?\_\_\_\_\_, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?\_\_\_\_\_, 25 TONS/YEAR FLUORIDES ?\_\_\_\_\_, 100TONS/YEAR CARBON MONOXIDE ?\_\_\_\_\_, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?\_\_\_\_\_, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?\_\_\_\_\_, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?\_\_\_\_\_, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?\_\_\_\_\_. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION \_\_\_\_\_.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC \_\_\_\_\_ OR, PERMIT CONDITION # \_\_\_\_\_ AND/OR PERMIT LIMIT OF \_\_\_\_\_

THIS INCIDENT MEETS THE DEFINITION OF MALFUNCTION AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: \_\_\_\_\_ PHONE NO. ( ) \_\_\_\_\_  
LOCATION: (CITY AND COUNTY) \_\_\_\_\_  
PERMIT NO. \_\_\_\_\_ AFS PLANT ID: \_\_\_\_\_ AFS POINT ID: \_\_\_\_\_ INSP: \_\_\_\_\_  
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: \_\_\_\_\_

DATE/TIME MALFUNCTION STARTED: \_\_\_\_/\_\_\_\_/20\_\_\_\_ \_\_\_\_\_ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: \_\_\_\_\_

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE \_\_\_\_/\_\_\_\_/20\_\_\_\_ \_\_\_\_\_ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: \_\_\_\_\_

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: \_\_\_\_\_

MEASURES TAKEN TO MINIMIZE EMISSIONS: \_\_\_\_\_

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL\* SERVICES: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: \_\_\_\_\_

INTERIM CONTROL MEASURES: (IF APPLICABLE) \_\_\_\_\_

MALFUNCTION REPORTED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_  
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

\*SEE PAGE 2

**Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.**

**326 IAC 1-6-1 Applicability of rule**

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

**326 IAC 1-2-39 "Malfunction" definition**

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

\***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

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# Indiana Department of Environmental Management Office of Air Quality

## Addendum to the Technical Support Document for Minor Source Operating Permit (MSOP) Renewal

### Source Background and Description

**Source Name:** SIGECO - Ohio Valley Hub, LLC  
**Source Location:** County Road SE 400 E, Monroe City, Indiana 47557  
**County:** Knox  
**SIC Code:** 4931  
**Operation Permit No.:** M083-22648-00002  
**Permit Reviewer:** ERG/SE

On January 5, 2007, the Office of Air Quality (OAQ) had a notice published in the Sun Commercial, Evansville, Indiana, stating that SIGECO - Ohio Valley Hub, LLC (SIGECO) had applied for a Minor Source Operating Permit (MSOP) Renewal to operate a natural gas compressor station with control. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On February 8, 2007, SIGECO submitted comments on the proposed MSOP Renewal. The summary of the comments is as follows:

#### **Comment #1:**

SIGECO stated that the original MSOP 083-13648-00002, issued to the source on May 1, 2001, to operate two natural gas-fired, spark injection internal combustion engines with low emission combustion design for NO<sub>x</sub> was based on the Caterpillar Gas Engine Emission Letter dated November 29, 2000 and other documentation. The NO<sub>x</sub> emissions at 100% load were specified as 1.50 g/bhp-hr. SIGECO stated that IDEM accepted the manufacturers' documentation of this NO<sub>x</sub> emission factor as the best available, most accurate demonstration of this type of engine with significantly leaner emissions than the type which would be presented in AP-42. The current draft MSOP Renewal contains a new stack testing requirement for these existing permitted engines based upon no new legal requirement or regulation, no non-compliance history, and no information to question the Caterpillar documentation for these specific engines. SIGECO strongly requests the removal of this stack testing requirement from the draft MSOP Renewal.

The reason given in the TSD to the draft MSOP Renewal for requiring the stack testing of these engines is that the emission factor used to calculate potential NO<sub>x</sub> emissions is "significantly less than" the emission factor in AP-42, Chapter 3, Table 3.2-2 (7/00). SIGECO states that the AP-42 factor being applied is based on an uncontrolled 2 g engine. SIGECO has controlled 1.5 g engines. The IDEM contracted permit reviewer has stated that it is her understanding that the emissions from a 1.5 g engine would be 25% less than from a 2 g engine.

SIGECO also stated that it is most important to point out the enormous difference between AP-42 NO<sub>x</sub> emission factors (based on an uncontrolled engine) and the Caterpillar emission factors, since the SIGECO engines have combustion controls that are known to produce significantly lower NO<sub>x</sub> emissions. SIGECO stated that the primary difference between the SIGECO engines and the uncontrolled engines in AP-42 is that these engines are able to run much leaner at 7.80% exhaust oxygen (as provided in the Caterpillar Gas Emissions Letter), which significantly limits the NO<sub>x</sub> emissions for a given amount of fuel burned. The combustion controls that work together to allow this to occur on these Caterpillar engines are: high energy ignition system, which allows the combustion of very lean air/fuel ratios; O<sub>2</sub> feedback control, which limits the emissions variation, and thus allow the engine to run closer to the lean limit; turbocharging, which provides sufficient air to allow the engine to make power at very low air to fuel ratios; combustion chamber design, including dished piston, which provides sufficient "swirl and squish" to allow combustion of very lean air/fuel ratios.

Caterpillar has documented and specified these SIGECO engines at 1.5 g/bhp-hr which equates to 0.3958 lb/MMBtu-hr. When compared to the relative 3.06 lb/MMBtu-hr AP-42 emission factor, the order of degree of difference between the values is defensible when the low NO<sub>x</sub> emission controls of these SIGECO Caterpillar engines is accounted for in the emissions data.

SIGECO stated that the TSD for the draft MSOP Renewal includes justification for IDEM's correct determination that the low emission combustion design of these engines should be considered an integral part of the natural gas compressor. The TSD provides: "IDEM, OAQ evaluated this justification and determined that the low emission combustion design for NO<sub>x</sub> control should be considered an integral part of the natural gas compressor. Therefore, the permitting level was determined using the potential to emit after the low emission combustion design for NO<sub>x</sub> control." Therefore, IDEM itself has already acknowledged the distinct difference of these low NO<sub>x</sub> emission burners relative to generic lean burn engines.

SIGECO stated that the Engine Manufacturers Association (EMA) has also been engaged in recent discussions with U.S. EPA with regard to the inapplicability of the AP-42 emission factors for these types of low NO<sub>x</sub> emission internal combustion engines. EMA believes that the sample of uncontrolled engines behind the AP-42 factors is not in fact representative of the current engine state of the art. The AP-42 factors are a composite value that has been aggregated from a variety of sources of varying similarity, whereas the Caterpillar engine specifications are superior because they are a match to a specific model at a specific load and fuel conditions and indexed to a specific point in time.

Further, requiring such a burdensome and costly expenditure, at an estimated \$7,000.00, in light of no documentation to suddenly question a major producer of engines of this type supported by extensive data, tests, and research is not supported by IDEM authority or regulation.

#### **Response to Comment #1:**

The Office of Air Quality (OAQ) routinely performs air quality analyses to insure that issuance of a permit or registration will not result in a violation of any state or federal air regulations and standards. Because no IDEM approved testing has ever been performed to verify the accuracy of the Caterpillar emission factor, a one time stack test is required to ensure compliance with 326 IAC 2-6.1 (Minor Source Operating Permit Program). No changes have been made as a result of this comment.

Upon further review, the OAQ has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted). The Table of Contents has been modified, if applicable, to reflect these changes.

In order to avoid the need for Notice-only changes in the future, the title of the authorized individual is being removed from Section A.1 of the permit. It is still the responsibility of the

Permittee to notify IDEM if the authorized individual or the contact information for the authorized individual changes. Condition A.1 has been revised as follows to reflect this change:

A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary natural gas compressor station.

Authorized Individual: ~~General Manager~~  
Source Address: Co. Road SE 400 E, Monroe City, Indiana 47557  
Mailing Address: One Vectren Square, Evansville, Indiana 47708  
Phone Number: 812-491-4000  
SIC Code: 4931  
County Location: Knox  
County Status: Attainment for all criteria pollutants  
Source Status: Minor Source Operating Permit  
Minor Source, under PSD Rules;  
Minor Source, Section 112 of the Clean Air Act  
Not 1 of 28 Source Categories

The fax number for Indiana Department of Environmental Management, Office of Air Quality has been corrected in the permit as follows:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
FAX NUMBER - 317 233-~~5967~~ **6865**

# Indiana Department of Environmental Management Office of Air Quality

## Technical Support Document (TSD) for the Renewal of a Minor Source Operating Permit

### Source Background and Description

Source Name:	SIGECO - Ohio Valley Hub, LLC
Source Location:	County Road SE 400 E, Monroe City, Indiana 47557
County:	Knox
SIC Code:	4931
Operation Permit No.:	M083-13648-00002
Operation Permit Issuance Date:	May 1, 2001
Permit Renewal No.:	M083-22648-00002
Permit Reviewer:	ERG/SE

The Office of Air Quality (OAQ) has reviewed a renewal application from SIGECO - Ohio Valley Hub, LLC relating to the operation of a natural gas compressor station.

### Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

Two natural gas-fired, spark injection internal combustion engines constructed in 2000, for natural gas compression, identified as OVH No. 1 and OVH No. 2, each rated at 1450 brake horsepower (bhp) and 1500 revolutions per minute (rpm), with a maximum capacity of 12.1 million British thermal units per hour (MMBtu/hr), with low emission combustion design for NO<sub>x</sub>, and exhausting to stacks No. 1 and 2, respectively.

### Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted emission units operating at this source during this review process.

### Existing Approvals

The source has been operating under MSOP 083-13648-00002, issued on May 1, 2001.

All conditions from previous approvals were incorporated into this permit.

### Air Pollution Control Justification as an Integral Part of the Process

During the preparation of the current MSOP, the company submitted the following justification such that the low emission combustion design for NO<sub>x</sub> emissions be considered as an integral part of the natural gas compressor:

The low emission combustion design for NO<sub>x</sub> emissions is incorporated into the design of the IC engine. It is in situ and cannot be in any way separated from the IC engine. As a result, the IC engine cannot operate unless the control device is also operating.

IDEM, OAQ evaluated this justification and determined that the low emission combustion design for NO<sub>x</sub> control should be considered an integral part of the natural gas compressor. Therefore, the permitting level was determined using the potential to emit after the low emission combustion design for NO<sub>x</sub> control. Operating conditions in the proposed MSOP renewal will specify that the low NO<sub>x</sub> burners shall operate at all times when the internal combustion engines are in operation.

**Enforcement Issue**

There are no enforcement actions pending.

**Stack Summary**

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
No. 1	OHV No.1	18	0.5	4,900	750
No. 2	OHV No. 2	18	0.5	4,900	750

**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.

A complete application for the purposes of this review was received on February 13, 2006.

**Emission Calculations**

See Appendix A of this document for detailed emission calculations (pages 1 through 3).

**Potential to Emit of the Source Before Controls**

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	0.01
PM10	1.06
SO <sub>2</sub>	0.06
VOC	12.52
CO	33.64
NO <sub>x</sub>	42.00

HAPs	Potential to Emit (tons/year)
Formaldehyde	5.60
Acetaldehyde	0.89
Acrolein	0.55
Methanol	0.27
n-Hexane	0.12
Total	7.61

**Note:** PM10, not PM, is the regulated pollutant under 326 IAC 2-7.

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of all criteria pollutants are less than one hundred (100) tons per year and the potential to emit NO<sub>x</sub> and CO are greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. An MSOP will be issued.

- (b) The potential to emit as defined in 326 IAC 2-1.1-1(16) of any single hazardous air pollutant (HAP) is less than ten (10) tons per year and the potential to emit of combined HAPs is less than twenty-five (25) tons per year; therefore, this source is not subject to the requirements of 326 IAC 2-7 (Part 70 Permit Program).

**County Attainment Status**

The source is located in Knox County.

Pollutant	Status
PM10	Attainment
PM2.5	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Knox County has been classified as unclassifiable or attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability – Entire Source section.
- (b) Volatile organic compounds (VOC) emissions 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. Knox 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. See the State Rule Applicability – Entire Source section.
- (c) Knox 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. See the State Rule Applicability – Entire Source section.
- (d) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana. Effective October, 25, 2006, 326 IAC 1-4-1 has been revised revoking the one hour ozone standard in Indiana.

**Source Status**

Existing Source PSD, Part 70, or FESOP Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	0.01
PM10	1.06
SO <sub>2</sub>	0.06
VOC	12.52
CO	33.64
NO <sub>x</sub>	42.00
Single HAP	5.60
Combination HAPs	7.61

- (a) This existing source is not a major stationary source because no regulated pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories.
- (b) These emissions were based on the calculations in Appendix A of this document.

### **Part 70 Permit Determination**

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

This existing source, including the emissions from this permit 083-22648-00002, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

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

This status is based on all the air approvals issued to the source.

### **Federal Rule Applicability**

- (a) The requirements of the New Source Performance Standards for Equipment Leaks of VOC from On-Shore Natural Gas Processing Plants (326 IAC 12 and 40 CFR Part 60, Subpart KKK) are not included in this permit because this plant does not meet the definition of "a natural gas processing plant" as defined in 40 CFR 60.631. Pursuant to 40 CFR 60.630(e), compressor stations that are not located at "a natural gas processing plant" are exempt from the provisions of this subpart.

The requirements of the New Source Performance Standard for On-Shore Natural Gas Processing: SO<sub>2</sub> (326 IAC 12 and 40 CFR 60, Subpart LLL) are not included in this permit because this plant does not operate a sweetening unit or sulfur recovery unit.

- (b) There are no Natural Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14 and 40 CFR Part 61) included in this permit.

The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart ZZZZ are not included in this permit for this source because it is not a major source of HAPs.

The requirements of the National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities (326 IAC 20-30 and 40 CFR 63, Subpart HH) are not included in this permit because this plant is not a major source of hazardous air pollutants and is not located at a natural gas production facility as defined in 40 CFR 63.761.

The requirements of the National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities (326 IAC 20-31 and 40 CFR 63 Subpart HHH) are not included in this permit. This rule applies to sources that are major sources of HAP.

### **State Rule Applicability – Entire Source**

#### **326 IAC 2-2 (Prevention of Significant Deterioration)**

This source was constructed in 2000 and the potential to emit all regulated pollutants is less than 250 tons per year. No modifications have been made to this source since the issuance of the current minor source operating permit. Since the potential emissions of all regulated pollutants are less than 250 tons per year, this source is a minor source under PSD.

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

This source is located in Knox County, is not required to operate under a Part 70 permit, and emits less than 5 tons per year of lead. Therefore, pursuant to 326 IAC 2-6-1(b), the source is only subject to additional information requests as provided in 326 IAC 2-6-5.

#### **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 the permit:

- (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.

### **State Rule Applicability – Internal Combustion Engines**

#### **326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)**

This source is not subject to the provisions of 326 IAC 7-1.1 because the potential to emit sulfur dioxide from each facility is less than twenty-five (25) tons per year or ten (10) pounds per hour.

#### **326 IAC 8-1-6 (VOC Limits, New Facilities; General Reduction Requirements)**

This source is not subject to the provisions of 326 IAC 8-1-6 because the potential to emit VOC is less than 25 tons per year.

#### **326 IAC 9-1 (Carbon Monoxide Emission Limits)**

This source is not subject to the provisions of 326 IAC 9-1-2 because it is not a petroleum refinery, a ferrous metal smelter, or a refuse incinerator.

#### **326 IAC 10-1 (Nitrogen Oxides Control in Clark and Floyd Counties)**

This source is not subject to the provisions of 326 IAC 10-1 because it is not located in Clark or Floyd counties.

#### **326 IAC 10-5 (Nitrogen Oxide Reduction Program for Internal Combustion Engines (ICE))**

This source is not subject to the provisions of 326 IAC 10-5 because it is not a large NO<sub>x</sub> SIP Call engine as defined in 326 IAC 10-5-2.

### **Testing Requirements**

In order to demonstrate compliance with 326 IAC 2-6.1 (Minor Source Operating Permit Program), the Permittee shall conduct a performance test to verify the emission factor associated with the NO<sub>x</sub> emissions from the internal combustion engines, identified as OVH No. 1 and OVH No. 2, using methods as approved by the Commissioner, within one hundred and eighty (180) days after the issuance of this Minor Source Operating Permit. Testing shall be conducted in accordance with Section C - Performance Testing. Testing is necessary because the emission factor used to calculate potential NO<sub>x</sub> emissions for the current MSOP for this source was provided by the manufacturer and predicts a potential to emit NO<sub>x</sub> that is significantly less than

that estimated using the emission factor in AP-42, Chapter 3, Table 3.2-2 (7/00). Since the two engines are identical in design, capacity, and construction date, the Permittee is required to test only one of the two units.

### **Conclusion**

The operation of this natural gas compressor station shall be subject to the conditions of the Minor Source Operating Permit 083-22648-00002.

**Appendix A: Emissions Calculations**  
**Criteria Pollutant Emissions**  
**Natural Gas Combustion Only, MM BTU/HR <100 From Compressors**

**Company Name: SIGECO-Ohio Valley Hub, LLC**  
**Address: County Road SE 400 E. Monroe City, Indiana 47557**  
**MSOP: 083-22648-00002**  
**Reviewer: ERG/SE**  
**Date: December 5, 2006**

Heat Input Capacity  
MMBtu/hr

24.2

Emission Factor in lb/MMBTU	Pollutant				
	PM*	PM10*	SO2	VOC	CO
	7.71E-05	9.99E-03	5.88E-04	0.118	0.317
Potential Emission in tons/yr	0.01	1.06	0.062	12.5	33.6

Emission factors are from AP 42, Chapter 3.2, Table 3.2-2 [7/00]

\*Emission factors are available for PM Condensable, PM10 (filterable), and PM2.5 (filterable) in AP 42, Chapter 3.2, Table 3.2-2 [7/00].

Note: PM is defined as filterable PM, while PM10 is defined as the sum of filterable and condensable particulates.

Since there are no available emission factors for filterable PM, the emission factor used for PM above is the emission factor provided in AP 42 for PM10 (filterable).

The emission factor used for PM10 above is the sum of the emission factors provided in AP 42 for PM Condensable and PM10 (filterable).

(see AP 42, Chapter 3.2, Table 3.2-2)

**Methodology**

Potential Emissions (tons/yr) = Heat Input Capacity (MMBTU/hr) x Emission Factor (lb/MMBTU) x 8760 hrs/yr x 1 ton/2,000 lbs

**Appendix A: Emissions Calculations**  
**HAP Emissions**  
**Natural Gas Combustion Only, MM BTU/HR <100, Compressor**

**Company Name: SIGECO-Ohio Valley Hub, LLC**  
**Address: County Road SE 400 E. Monroe City, Indiana 47557**  
**MSOP: 083-22648-00002**  
**Reviewer: ERG/SE**  
**Date: December 5, 2006**

Heat Input Capacity  
MMBtu/hr

24.2

HAPs - Organics

Emission Factor in lb/MMBTU	Formaldehyde 5.28E-02	Acetaldehyde 8.36E-03	Acrolein 5.14E-03	Methanol 2.50E-03	1,3- Butadiene 2.67E-04	2,2,4- Trimethylpentane 2.50E-04
Potential Emissions in tons/yr	5.60E+00	8.87E-01	5.45E-01	2.65E-01	2.83E-02	2.65E-02
Emission Factor in lb/MMBTU	Benzene 4.40E-04	Biphenyl 2.12E-04	n-Hexane 1.11E-03	Toluene 4.08E-04	Xylene 1.84E-04	<b>Total</b>
Potential Emissions in tons/yr	4.67E-02	2.25E-02	1.18E-01	4.33E-02	1.95E-02	<b>7.61</b>

Emission Factors are from AP 42, Chapter 3.2, Table 3.2-2 [7/00]

The eleven highest organic and metal HAP emission factors are provided above.

Additional HAP emission factors are available in AP-42, Chapter 3.2, Table 3.2-2 [7/00].

**Methodology**

Potential Emissions (tons/yr) = Heat Input Capacity (MMBTU/hr) x Emission Factor (lb/MMBTU) x 8760 hrs/yr x 1 ton/2,000 lbs

**Appendix A: Emissions Calculations**  
**NOx Calculations**  
**Natural Gas Combustion Only, MM BTU/HR <100, Compressor**

**Company Name:** SIGECO-Ohio Valley Hub, LLC  
**Address:** County Road SE 400 E. Monroe City, Indiana 47557  
**MSOP:** 083-22648-00002  
**Reviewer:** ERG/SE  
**Date:** December 5, 2006

Two (2) Natural Gas-Fired Compressors each rated at:	1450 Bhp at 1500 RPM
NOx emission factor provided by the manufacturer:	1.5 g/Bhp-hr
NOx emission rate conversion:	2175 g/hr 2.175 Kg/hr 4.795 lbs/hr 0.002 tons/hr
Maximum hours of operation per year:	8760 hrs/yr
Annual NOx Emissions per Unit:	21.0 tons/yr
<b>Total Annual NOx Emissions</b>	<b>42.0 tons/yr</b>

NOx emissions are calculated with supplemental data provided by the source.  
The emission factor will be verified by stack tests.

**Methodology**

Annual NOx Emissions per Unit (tons/yr) = 1450 Bhp x 1.5 g/Bhp-hr x 1 kg/1,000g x 2.2 lbs/kg x 1 ton/2,000 lbs x 8760 hrs/yr  
Total Annual NOx Emissions (tons/yr) = Annual NOx emissions per unit (tons/yr) \* 2 units