State of Ohio Environmental Protection Agency

Portage County **RE: Final Permit to Install**

Street ddress:
1800 \ 49
Colum 16-1049

Application No: **16-1944**

DATE: **June 30, 1999**

Range Resources Elliman Road Compressor
John T. Fleming
7952 State Route 44
Ravenna, Ohio 44266-9781

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, buy it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

cc: USEPA
Akron Regional Air Quality Mgmt

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Application Number: 16-1944

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APS Premise Number: 1667000043

Permit Fee: **$400**

Name of Facility: Range Resources Elliman Road Compressor

Person to Contact: John T. Fleming

Address: 7952 State Route 44
Ravenna, Ohio 44266-9781

Location of proposed air contaminant source(s) [emissions unit(s)]:
9600 Elliman Road
Shalersville, Ohio

Description of proposed emissions unit(s):
NATURAL GAS COMPRESSOR ENGINE.

Date of Issuance: June 30, 1999

Effective Date: June 30, 1999

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

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Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon

the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any

applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions

and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities prove to be inadequate or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit to Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This

permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the emissions unit(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant	Tons Per Year
nitrogen oxides	23.0
total hydrocarabons	2.6
particulates	1.5

Emissions Unit ID: **B001**

PART II: SPECIAL TERMS AND CONDITIONS

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Natural gas-fired stationary small internal combustion engine (CAT G3306 NA natural aspiration, 4-cycle/rich-burn, 149 HP maximum rated power output @ 1.12 mmBtu/hr maximum rated actual heat input) driving a natural gas compressor	OAC rule 3745-31-05	5.25 lbs/hr nitrogen oxides 23.0 TPY nitrogen oxides 0.59 lb/hr total hydrocarbons 2.6 TPY total hydrocarbons 1% opacity from the stack, as a 6-minute average
	OAC rule 3745-17-11	0.310 lb particulates/mmBtu actual heat input 1.5 TPY particulates
	OAC rule 3745-17-07	The visible particulate emission limitation based on OAC rule 3745-17-07 is less stringent than the visible particulate emission limitation based on OAC rule 3745-31-05.

2. Additional Terms and Conditions

2.a Potential emissions of nitrogen oxides, total hydrocarbons, and particulates from this emissions unit, as demonstrated in "Testing Requirements" of section E below, are no greater than the respective applicable emission limits, as

established in this permit to install. Therefore, no recordkeeping, reporting, nor emissions calculations are required to demonstrate compliance with these limits.

B. Operational Restrictions

1. This emissions unit shall be limited to only natural gas as fuel.

C. Monitoring and/or Recordkeeping Requirements

None

D. Reporting Requirements

None

E. Testing Requirements

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

5.25 lbs/hr and 23.0 TPY of nitrogen oxides

Applicable Compliance Method:

The nitrogen oxides emissions limitations are based upon the emissions unit's potential to emit:

(15.97 grams of nitrogen oxides/HP-hr [manufacturer's stack test data]) x (149 HP [maximum rated power output of engine]) x (1 pound/453.6 grams [mass conversion factor]) = 5.25 lbs/hr nitrogen oxides; and,

(5.25 lbs/hr nitrogen oxides) x (8760 hrs/yr) x (1 ton/2000 lbs) = 23.0 TPY nitrogen oxides.

b. Emission Limitations:

0.59 lb/hr and 2.6 TPY of total hydrocarbons

Applicable Compliance Method:

The total hydrocarbons emissions limitations are based upon the emissions unit's potential to emit:

(1.81 grams of total hydrocarbons/HP-hr [manufacturer's stack test data]) x (149 HP [maximum rated power output of engine]) x (1 pound/453.6 grams [mass conversion factor]) = 0.59 lb/hr total hydrocarbons; and,

(0.59 lb/hr total hydrocarbons) x (8760 hrs/yr) x (1 ton/2000 lbs) = 2.6 TPY total hydrocarbons.

c. Emission Limitation:

.310 pound of particulates per million Btu of actual heat input

Applicable Compliance Method:

The above particulate emissions limitation is greater than the emissions unit's potential to emit:

Use the AP-42, 10/96, Table 3.2-3 emission factor of 0.0007 pound of particulates (solids) per million Btu of actual heat input.

d. Emission Limitation:

1.5 TPY of particulates

Applicable Compliance Method:

The annual particulate emissions limitation is greater than the emissions unit's potential to emit:

(0.0007 pound of solid particulates/million Btu heat input [AP-42, 10/96, Table 3.2-3]) x (1.12 million Btu/hr heat input [maximum rated heat input of engine]) x (8760 hrs/yr) x (1 ton/2000 lbs) = 0.003 TPY particulates.

e. Emission Limitation:

1% opacity, as a 6-minute average

Applicable Compliance Method:

Compliance shall be determined by visible particulate emission evaluations performed using the procedures specified in USEPA Method 9.

Emissions Unit ID: **B001**

F. Miscellaneous Requirements

None