

1

Facility Name: **G E Ivanhoe Road Plant**

Application Number: **13-3458**

Date: **February 18, 1999**

GENERAL PERMIT CONDITIONS

TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. 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.

NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

CONSTRUCTION OF NEW SOURCES

The proposed source(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 source(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 Ohio Administrative Code (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

2

Facility Name: **G E Ivanhoe Road Plant**

Application Number: **13-3458**

Date: **February 18, 1999**

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 cannot meet applicable standards.

PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 30 days of the effective date of this permit to install.

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.

APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

Facility Name: **G E Ivanhoe Road Plant**

Application Number: **13-3458**

Date: **February 18, 1999**

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.

PERMIT TO OPERATE APPLICATION

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be filed no later than thirty days after commencement of operation.

SOURCE OPERATION 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 and regulations.

4

Facility Name: **G E Ivanhoe Road Plant**

Application Number: **13-3458**

Date: **February 18, 1999**

5

Facility Name: **G E Ivanhoe Road Plant**

Application Number: **13-3458**

Date: **February 18, 1999**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
---	---	------------------------------	---	--

AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **G E Ivanhoe Road Plant** located in **Cuyahoga** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

Furnace "Part
of Big 'E'"

P031
(Mod)

Ohio
EPA
Source
Number

Source
Identification
Description

P002
(Mod)

Furnace "Little 'E'"
(F4)

P031
(Mod)
Cont'd

P029
(Mod)

Furnace "Part of Big
'E'"

Facility Name: **G E Ivanhoe Road Plant**

Application Number: **13-3458**

Date: **February 18, 1999**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
---	---	------------------------------	---	--

conditions of this
permit

BAT
Determination

Compliance
with the
emission
limits and the
terms and
conditions of
this permit

Compliance
with the
emission
limits and the
terms and
conditions of
this permit

Compliance
with the
emission
limits and the
terms and

Facility Name: **G E Ivanhoe Road Plant**

Application Number: **13-3458**

Date: **February 18, 1999**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
		3745-17-08		*20 percent opacity
	<u>Applicable Federal & OAC Rules</u>		<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>	
3745-17-11			*TSP" 1.5 pounds/hour 6.37 TPY	
3745-17-07				
3745-17-08			*20 percent opacity	
3745-17-11			*TSP: 1.14 pounds/hour 5.2 TPY	
3745-17-07			*Combined emissions from P029 and P031 not to exceed 10.4	
3745-17-08			*20 percent opacity	
3745-17-11			*TSP: 1.19 pounds/hour 5.2 TPY	
3745-17-07			*Combined emissions from P029 and P031 not to exceed 10.4	

Facility Name: **G E Ivanhoe Road Plant**

Application Number: **13-3458**

Date: **February 18, 1999**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
---	---	------------------------------	---	--

SUMMARY

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
PM	16.97

RECORD(S) RETENTION AND AVAILABILITY

All records required by this Permit to Install shall be retained on file for a period of not less than three years unless otherwise indicated by Ohio Environmental Protection Agency. All records shall be made available to the Director, or any representative of the Director, for review during normal business hours.

REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to **Cleveland Air Pollution Control, 1925 St. Clair Avenue, Cleveland, OH 44114.**

MAINTENANCE OF EQUIPMENT

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

Facility Name: **G E Ivanhoe Road Plant**

Application Number: **13-3458**

Date: **February 18, 1999**

MALFUNCTION/ABATEMENT

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **Cleveland Air Pollution Control, 1925 St. Clair Avenue, Cleveland, OH 44114.**

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

AIR POLLUTION NUISANCES PROHIBITED

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

A. Operational Restrictions

1. The pressure drop across the scrubber shall be continuously maintained at a value of not less than manufacturer's recommendations at all times while the emissions unit P002 is in operation.
2. The scrubber water flow rate shall be continuously maintained at a value of not less than manufacturer's recommendations at all times while the emissions unit P002 is in operation.
3. The pressure drop across the scrubber shall be continuously maintained at a value of not less than manufacturer's recommendations at all times while the emissions unit P029 and P031 are in operation.
4. The scrubber water flow rate shall be continuously maintained at a value of not less than manufacturer's recommendations at all times while the emissions unit P029 and P031 are in operation.

B. Monitoring and Recordkeeping Requirements

Facility Name: **G E Ivanhoe Road Plant**

Application Number: **13-3458**

Date: **February 18, 1999**

1. The permittee shall properly install, operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit P002 is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
2. The permittee shall collect and record the following information each day:
 - a. the pressure drop across the scrubber, in inches of water, on a daily basis;
 - b. the scrubber water flow rate, in gallons per minute, on a daily basis; and,
 - c. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
3. The permittee shall properly install, operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit P029 and P031 are in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
4. The permittee shall collect and record the following information each day:
 - a. the pressure drop across the scrubber, in inches of water, on a daily basis;
 - b. the scrubber water flow rate, in gallons per minute, on a daily basis; and,
 - c. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
5. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of three 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 the permit. Such records may be maintained in computerized form.

C. Reporting Requirements

Facility Name: **G E Ivanhoe Road Plant**

Application Number: **13-3458**

Date: **February 18, 1999**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:
 - a. the static pressure drop across the scrubber; and,
 - b. the scrubber water flow rate.

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 Cleveland Air Pollution Control. 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, 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).

D. Emission Limitation

1. Particulate emissions from emissions unit P002 (furnace F4) shall be limited to a maximum of 1.5 pounds/hour.
2. Particulate emissions from each emissions unit P029 and P031 (furnace F1002 and F73, respectively) shall be limited to a maximum of 1.19 pounds/hour.
3. Visible emissions from emissions unit P002 and from the stack of emissions units P029 and P031 shall be limited to no more than 20 percent opacity as a six minute average.
4. Compliance with these visible emissions shall be based upon methods outline in OAC rule 3745-17-03(B)(10).

E. Emission Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this

Facility Name: **G E Ivanhoe Road Plant**

Application Number: **13-3458**

Date: **February 18, 1999**

emissions unit in accordance with the following requirements:

- a. the emission testing shall be conducted whenever required; and,
 - b. the emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.
2. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): i) Method 5 of 40 CFR part 60, Appendix A. ii) Method 9 of 40 CFR part 60, Appendix A - if applicable. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 3. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland Air Pollution Control.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland Air Pollution Control. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland Air Pollution Control's refusal to accept the results of the emission test(s).

Personnel from the Cleveland Air Pollution Control shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Cleveland Air Pollution Control within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland Air Pollution Control.

F. Air Toxic Modeling

1. This permit allows the use of materials (typically coatings and cleanup materials) specified by the permittee in the permit to install application for this emissions unit. To fulfill the best available

Facility Name: **G E Ivanhoe Road Plant**

Application Number: **13-3458**

Date: **February 18, 1999**

technology requirements of (OAC) rule 3745-31-05 and to ensure compliance with OAC rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit was (were) established using the Ohio EPA's "Air Toxics Policy" and is (are) based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for each pollutant:

Pollutant: Manganese compounds

Pollutant: Antimony compounds

Manganese TLV (ug/m3): 200.0

Antimony TLV (ug/m3): 500.0

Maximum Hourly Emission Rate (pounds/hour): 3.88

Predicted 1-Hour Maximum Ground-Level

Manganese Concentration (ug/m3): 0.433

Antimony Concentration (ug/m3): 0.392

Manganese MAGLC (ug/m3): 4.76

Antimony MAGLC (ug/m3): 11.90

OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined in OAC rule 3745-31-01. The permittee is hereby advised that the following changes to the process may be determined to be a "modification":

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in

Facility Name: **G E Ivanhoe Road Plant**

Application Number: **13-3458**

Date: **February 18, 1999**

the above table;

- b. changes to the emissions unit or its exhaust parameters (e.g., increased emission rate [not including an increase in an "allowable" emission limitation specified in the terms and conditions of this permit], reduced exhaust gas flow rate, and decreased stack height);
 - c. changes in the composition of the materials used, or use of new materials, that would result in the emission of an air contaminant not previously permitted; and,
 - d. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV.
2. The Ohio EPA will not consider any of the above-mentioned as a "modification" requiring a permit to install, if the following conditions are met:
- a. the change is not otherwise considered a "modification" under OAC Chapter 3745-31;
 - b. the permittee can continue to comply with the allowable emission limitations specified in its permit to install; and,
 - c. prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy; determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy.

For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.

Facility Name: **G E Ivanhoe Road Plant**

Application Number: **13-3458**

Date: **February 18, 1999**

3. The permittee shall collect and record the following information for each change where the air toxic modeling was required pursuant to the Air Toxic Policy:
 - a. background data that describes the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.); and,
 - b. a copy of the resulting computer model runs that show the results of the application of the Air Toxic Policy for the change.