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

Application Number: **13-3326**

Date: **November 4, 1998**

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

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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.

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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.

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<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>
<u>AIR EMISSION SUMMARY</u>				
<p>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.</p>				
Ohio EPA Source Number	Source Identification		An electric pusher furnace no. F-1001 for manufacturing/firing fluorescent phosphor powder	BAT <u>Determination</u>
P034	P035	An electric pusher furnace no. F-87 for manufacturing/firing fluorescent phosphor powder		Compliance with the terms and conditions of this permit;
	P035 Cont'd			the use of a 6000 ACFM baghouse with a pressure drop of 4 to 8 inches water column; and
				the use of a 11,000 ACFM ammonia packed tower scrubber using recirculating phosphoric acid solution as the

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scrubbing medium with a minimum of 95 percent efficiency to control ammonia using 5 percent opacity from stack(s) as a 6-minute average efficiency to control ammonia with the terms and conditions of this permit;	a pressure drop of 4 to 8 inches water column; and the use of a 11,000 ACFM ammonia packed tower scrubber recirculating phosphoric acid solution as the scrubbing medium with a minimum of 95 percent efficiency to control ammonia 5 percent opacity from stack(s) as a 6-minute average	Applicable Federal & OAC Rules		Permit Allowable Mass Emissions and/or Control/Usage Requirements
		3745-31-05		Particulate Matter: 0.015 pound/hour 0.066 ton/year
		3745-15-07		(Manganese Compounds: 0.0043 pound/hour 0.019 ton/year)
		3745-17-07		(Antimony Compounds: 0.002 pound/hour 0.008 ton/year)
		3745-17-11		5 percent opacity from stack(s) as a 6-minute average Ammonia: 0.05 pound/hour 0.22 ton/year
the use of a 6000 ACFM baghouse with		3745-31-05		
		3745-15-07		Particulate Matter: 0.015 pound/hour 0.066 ton/year
		3745-17-07		
		3745-17-11		(Manganese

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Compound ds: 0.0043 pound/h our 0.019 ton/yea r)				
(Antimo ny Compound ds: 0.002 pound/h our 0.008 ton/yea r)				
5 percent opacity from stack(s) as a 6-minut e average				
Ammonia : 0.05 pound/h our 0.22 ton/yea r				

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SUMMARY

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
Particulate Matter	0.132 (includes Mn and Sb compounds)
(Mangeneses Compounds	0.038)
(Antimony Compounds	0.016)
Ammonia	0.44

CONSTRUCTION STATUS

The **Cleveland Air Pollution Control** shall be notified in writing as to (a) the construction starting date, (b) the construction completion date, and (c) the date the facilities were placed into operation for the following sources: **P034 - Electric Phosphor Firing Furnace no. F-87; and P035 - Electric Phosphor Firing Furnace No. F1001.**

WASTE DISPOSAL

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

MAINTENANCE OF EQUIPMENT

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering

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practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

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. When running the special product that emits ammonia, the scrubber solution flow rate shall be continuously maintained at a value of not less than 400 liters per minute at all times while the emissions unit is in operation.
2. When running the special product that emits ammonia, the pH of the scrubber solution shall be maintained at no higher than 7.0 or no higher than the highest value of pH maintained during the last stack test.

B. Monitoring and/or Recordkeeping Requirements

1. Prior to running the special product that emits ammonia, the permittee shall properly install, operate and maintain equipment to continuously monitor the scrubber water flow rate while the emissions unit is in operation. The monitoring device and any recorder(s) shall be installed,

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calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

When running the special product that emits ammonia, the permittee shall collect and record the following information each day:

- a. the scrubber solution flow rate, in liters per minute, on a continuous basis; and,
- b. the pH of the scrubber solution on a continuous basis.

C. Reporting Requirements

1. During any time period that the special product that emits ammonia is running, 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 scrubber solution pH; and,
 - b. the scrubber solution flow rate.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the scrubber solution did not comply with the requirements of the parameters specified above.