



State of Ohio Environmental Protection Agency

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Columbus, Ohio 43266-0149  
(614) 644-3020  
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George V. Voinovich  
Governor

1405  
P069  
TBD

Re: Permit to Install  
Lorain County  
Application No: 02-5573  
NETTING

CERTIFIED MAIL

AUGUST 20, 1991

USS-KOBE STEEL CO, LORAIN WORKS  
R.C. STINSON  
1807 E 28TH ST  
LORAIN, OH 44055

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.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Board of Review 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 with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency and the Environmental Law Division of the Office of the Attorney General within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address:

Environmental Board of Review  
236 East Town Street, Room 300  
Columbus, Ohio 43215

Very truly yours,

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

cc: US EPA  
NORTHEAST DISTRICT OFFICE, DAPC

## Permit to Install Terms and Conditions

Application No. 02-5573  
APS Premise No. 0247080229  
Permit Fee: \$2000.00

Name of Facility: USS-KOBE STEEL CO, LORAIN WORKS

Person to Contact: R.C. STINSON

Address: 1807 E 28TH ST  
LORAIN, OH 44055

Location of proposed source(s): 1807 E 28TH ST  
LORAIN, OHIO

Description of proposed source(s):  
# 3 BLAST FURNACE MODIFICATION PROJECT: BLAST FURNACE RELIN  
E, CASTHOUSE REBUILD, COKE SCREENING STATION INSTALLATION.

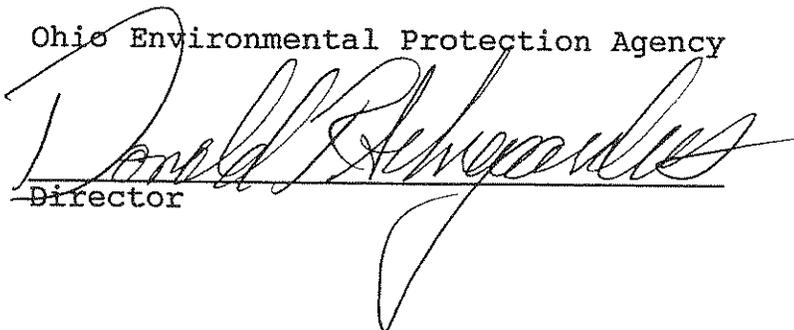
Date of Issuance: August 20, 1991

Effective Date: August 20, 1991

The above named entity is hereby granted a permit to install for the above described source(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 source(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 source(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

  
\_\_\_\_\_  
Director

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 SOURCE(S)

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 Ohio 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 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.

USS-KOBE STEEL CO, LORAIN WORKS  
Application No. 02-5573  
Page 3 of 12  
August 20, 1991

#### PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 15 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.

#### 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 and a \$15 application fee 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 made at least 90 days prior to start-up of the source.

#### AIR EMISSION SUMMARY

The air contaminant sources listed below comprise the Permit to Install for USS-KOBE STEEL CO, LORAIN WORKS located in Lorain County. The sources 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.

<u>Ohio EPA Source Number</u>	<u>Source Identification/Description</u>	<u>BAT Determination</u>	<u>Applicable Federal and OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control &amp; Usage Requirements</u>
P905	No. 3 Blast Furnace	Casthouse (Local Hooding) (Fabric Filter Dust Collector)	3745-31-05 3745-17-07 3745-17-08 3745-17-11	*
		Blast Furnace Gas Cleaning System (Venturi Scrubber) Stoves (Low NO <sub>x</sub> & CO Burners <sup>x</sup> )		
P069	Coke Screening Station	Fabric Filter Dust Collector	3745-31-05 3745-17-07 3745-17-11	(0.01 gr/dscf)

\*Subject to the attached Additional Special Terms and Conditions.

SUMMARY

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS  
(Includes existing and increases in emissions)

<u>Pollutant</u>	<u>Tons/Year</u>
TSP	272.53 (16.35 Increase)
PM <sub>10</sub>	211.72 (2.56 Increase)
SO <sub>2</sub>	148.60 (9.12 Increase)
NO <sub>x</sub>	1482.58 (24.42 Increase)
CO <sup>x</sup>	847.26 (21.30 Decrease)

CONSTRUCTION STATUS

The Northeast District Office 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: No. 3 Blast Furnace Modification Project.

PERFORMANCE TEST REQUIREMENTS

The permittee shall conduct, or have conducted, performance testing on the air contaminant source(s) in accordance with procedures approved by the Agency. Two copies of the written report shall be submitted and signed by the person responsible for the test, describing the test procedures followed and the results of such tests. The Director, or an Ohio EPA representative, shall be allowed to witness the tests, examine testing equipment, and require the acquisition or submission of data and information necessary to assure that the source operation and testing procedures provide a valid characterization of the emissions from the source and/or the performance of the control equipment.

1. A completed Intent to Test form shall be submitted to the appropriate Ohio EPA District Office or Local Air Pollution Control Agency where the original permit application was filed. This notice shall be made 30 days in advance and shall specify the source operating parameters, the proposed test procedures, and the time, date, place and person(s) conducting such tests.
2. Two copies of the test results shall be submitted within 30 days after the completion of the performance test.
3. Tests shall be performed for the following sources and pollutants:

<u>Source</u>	<u>Pollutant(s)</u>
(P905) Casthouse Baghouse	Particulate
No. 3 Blast Furnace Gas Cleaning System	Particulate
No. 3 Blast Furnace Stoves	CO and NO <sub>x</sub>
(P069) Coke Screening Station Baghouse	Particulate

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 two years unless otherwise indicated by Ohio Environmental Protection Agency. All records shall be made available to the Director, or any authorized 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 Northeast District Office, 2110 East Aurora Road, Twinsburg, Ohio 44087.

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 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 Northeast District Office, 2110 East Aurora Road, Twinsburg, Ohio 44087.

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.

USS-KOBE STEEL CO, LORAIN WORKS

Application No. 02-5573

Page 7 of 12

August 20, 1991

NINETY DAY OPERATING PERIOD

The facility will be permitted to operate during a 90-day period in accordance with OAC Rule 3745-35-02(C)(4)(b). The purpose of this period of operation is to fulfill the performance test conditions used in the determination of compliance with the provisions of this Permit to Install or other applicable Ohio EPA rules.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

I. No. 3 Blast Furnace Cast House Operations

- A. A cast house emission control system consisting of local hooding to capture particulate emissions at the taphole, skimmer, dam and tilting spout of each taphole runner system and a fabric filter dust collector shall be employed and maintained. In addition, covers shall be utilized to suppress emissions from a major portion of the trough not hooded and the slag runners shall be covered.
- B. The particulate emissions captured by the local hooding shall be exhausted to a fabric filter dust collector. Particulate emissions from the fabric filter dust collector outlet shall not exceed (0.0052) grains of particulate emissions per dry standard cubic foot of exhaust gases and the visible emission limitations prescribed by OAC Rule 3745-17-07.
- C. Visible emissions of fugitive dust from the No. 3 Blast Furnace cast house operations shall not exceed 15% (fifteen percent) opacity on a six minute rolling average basis. Visible emissions attributable to oxygen lancing shall be excluded provided all reasonable steps have been taken to minimize the use of oxygen lancing and a record of each lancing operation is maintained. A summary of the oxygen lancing records shall be made available for review by Ohio EPA representatives during normal business hours. Visible emissions from the casting operations in the No. 3 Blast Furnace cast house shall be determined according to test method nine as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources," except that each minute starts a new six minute rolling average. If visible emissions are being emitted from the roof monitor and other discharge points from the building, the observer shall record the most opaque plume.
- D. Visible emission readings shall be performed and recorded for the No. 3 Blast Furnace cast house operations to monitor compliance with the visible emission requirements specified in these Special Terms and Conditions. The readings shall be performed for three consecutive daylight casts each calendar month on a random basis. The visible

emission readings shall be performed by certified smoke readers in accordance with the procedures specified in paragraph C of these Special Terms and Conditions. These compliance demonstrations shall conform with the following procedures:

1. During each compliance demonstration case, the No. 3 Blast Furnace and cast house control system shall be operated in a manner representative of normal operating conditions.
2. USS/Kobe Steel Company, Lorain Works shall provide at least 2 visible emission observers. One observer (the "outside observer") shall observe and record the visible emissions that exit the cast house. At least one observer (the "inside observer") shall be situated inside the cast house positioned with a clear view of all cast house operations, consistent with the safety of the observer(s). Any outside observers shall be certified in accordance with Method 9.
3. The observation of each cast shall begin with the opening of taphole and conclude when the hot metal or slag ceases to flow.
4. The inside observer(s) shall record, at a minimum, the following:
  - i. the start and finish times of the taphole drilling;
  - ii. the start and finish times of any oxygen lancing operations;
  - iii. the start and finish times of any cast house operations that may affect the quantity of emissions that escape the cast house;
  - iv. the qualitative magnitude of uncaptured emissions from specific cast house locations recorded at five minute intervals during the cast (e.g. light, medium, heavy) (Locations - iron notch, trough, skimmer, etc.);

- v. description of out-of-the-ordinary occurrences including emission capture system problems that result in abnormal cast house fugitive emission;
  - vi. operating parameters such as:
    - drill size
    - tons of iron cast
    - sulfur content of the iron
    - furnace hot blast pressure
    - iron temperature; and,
  - vii. the start and finish times of the taphole plugging.
5. The outside observer shall make and record opacity readings at fifteen second intervals. Readings shall be made of emissions from the roof monitor or any other discharge point from the building or between the cast house and blast furnace. The highest opacity reading shall be recorded.
  6. For each cast, overlapping six minute opacity averages (averages of 24 consecutive opacity readings, moving at one minute intervals) shall be determined. The data set for each cast shall consist of all six minute averages so determined. Opacity readings immediately preceding or following one or more interferences shall be deemed to be consecutive.
  7. The Ohio EPA Northeast District Office shall be notified at least two days prior to each scheduled demonstration.
  8. In the event that a violations of the applicable visible emission limitation is determined during any demonstration, the Ohio EPA Northeast District Office shall be immediately notified.
  9. The compiled data shall be maintained for a period of not less than two years and shall be made available to the Ohio EPA field office during normal business hours.

10. On a quarterly basis, USS/Kobe Steel Company, Lorain Works shall submit to the Ohio EPA Northeast District Office a report of the results of the visible emission readings performed for the No. 3 Blast Furnace cast house during the previous calendar quarter. These reports shall be submitted by January 15, April 15, July 15 and October 15 of each year.

II. No. 3 Blast Furnace Gas Cleaning System

- A. The No. 3 Blast Furnace dust catcher and high energy venturi scrubber system shall be employed and maintained to continuously clean the blast furnace gas produced by this furnace to a particulate concentration not to exceed (0.003) grains particulate per standard cubic foot of gas produced.
- B. The No. 3 Blast Furnace hot blast stove burners shall be designed and operated to comply with the following emission limitations. Emissions from the stoves stack shall not exceed:
  1. the visible emission limitations prescribed by OAC Rule 3745-17-07,
  2. a maximum of (0.044) grains CO per standard cubic foot of waste gas; and
  3. a maximum of (0.087) grains of NO<sub>x</sub> per standard cubic foot of waste gas.

III. Record Keeping and Reporting Requirements

- A. This facility shall maintain monthly records of iron production from each operating blast furnace. These monthly records shall be retained in the company's files for a period of not less than two years and shall be made available to the Director or any authorized representative of the Director for review during normal business hours.
- B. This facility shall submit quarterly reports to the Ohio EPA field office which consist of the monthly records of blast furnace iron production during the previous three calendar months. The reports shall be submitted by January 15, April 15, July 15 and October 15 of each year.

USS-KOBE STEEL CO, LORAIN WORKS

Application No. 02-5573

Page 12 of 12

August 20, 1991

IV. Blast Furnace Iron Products

- A. USS/Kobe Steel Company may not produce any "merchant iron" from any of the blast furnaces at this facility.