(J) FINDINGS AND ORDERS FOR THE IMPROVEMENTS IN PARTICULATE EMISSION CONTROL FOR THE BASIC OXYGEN FURNACES AT WHEELING PITTSBURGH STEEL CORPORATION'S MINGO JUNCTION FACILITY

OhioEPA
State of Ohio Environmental Protection Agency

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October 31, 1995

CERTIFIED MAIL

Mr. William R. Samples
Manager
Environmental Control
Wheeling Pittsburgh Steel Corp.
Duvall Center
Wheeling, West Virginia 26003

Re: Final Findings & Orders for the basic oxygen furnaces at the Mingo Junction facility

Dear Mr. Samples:

Transmitted herewith are the Final Findings and Orders of the Director of the Ohio EPA concerning the above-referenced matter.

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 Section of the Office of the Attorney General within three (3) days of filing with the Board. An appeal my 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

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

TGR/slc

cc: Carol Hester, PIC
Julianne Kurdila, Legal Section
Jim Orlemann, DAPC
Edie Long, Finance (Agency # 17)
Tom Kalman, DAPC
Bob Gengarelly, DAPC
Harald Strachmann, NOVA

BEFORE THE

OHIO ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:

Wheeling-Pittsburgh Steel Corporation 1134 Market Street Wheeling, West Virginia 26003	: : : :	Director's Final Findings and Orders

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PREAMBLE

It is hereby agreed that:

I. JURISDICTION

These Director's Final Findings and Orders ("Orders") are issued to the Wheeling-Pittsburgh Steel Corporation ("Respondent"), pursuant to the authority vested in the Director of the Ohio Environmental Protection Agency ("Ohio EPA") under Ohio Revised Code ("ORC") sections 3704.03 and 3745.01.

II. PARTIES

These Orders shall apply to and be binding upon Respondent, its assigns and successors in interest.

III. DEFINITIONS

Unless otherwise stated, all terms used in these Orders shall have the same meaning as used in ORC Chapter 3704 and the regulations promulgated thereunder.

IV. FINDINGS OF FACT

The Director of the Ohio EPA has determined the following findings of fact:

1. Respondent owns and operates a steel production facility located in Mingo Junction, Jefferson County, Ohio. Two basic oxygen furnaces ("BOFs") operate at this facility, and the BOFs are identified by Ohio EPA application numbers 1741090010-P904 ("source P904") and 1741090010-P905 ("source P905").

2. The BOFs identified in Finding 1 are "air contaminant sources" as defined by OAC rule 3745-35-01(B)(1).

3. A large percentage of the particulate emissions from the melting and refining operation of sources P904 and P905 are

venturi scrubbers, gas coolers, separators and fans operating in parallel and discharging through a common stack. The hood serving the operating BOF is activated by opening its isolation damper while the damper on the other hood is closed.

4. The fugitive emissions from the BOFs are subject to OAC rule 3745-17-07(B)(1), which limits visible emissions of fugitive dust to 20 percent opacity or less, taken as a three-minute average pursuant to the test methods and procedures in OAC rule 3745-17-03(B)(3).

5. The results of visible emission ("VE") readings of the fugitive emissions from the building roof monitor serving sources P904 and P905 at Mingo Junction, performed by personnel from the North Ohio Valley Air Authority ("NOVAA"), are shown in Table I:

Table I

Date of Visible Emission Readings	Cumulative Time of 3-Minute Average Opacities Above 20% (minutes)	Range of 3-Minute Average Opacities Above 20% (%)
March 20, 1995	3	77.5
January 5, 1995	3	44.5
December 19, 1994	21	23-90
September 19, 1994	3	25
July 8, 1992	12	22-68

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The average opacities in Table I constitute violations of OAC rule 3745-17-07(B)(1).

6. On August 4, 1995, Respondent submitted the control plan and schedule contained in Order 1 in order to ensure that compliance with the requirement in OAC rule 3745-17-07(B)(1) is maintained.

7. The Director has given consideration to, and based his determination on, evidence relating to the technical feasibility and economic reasonableness of complying with the following Orders and their benefits to the people of the State to be derived from such compliance.

V. ORDERS

1. Respondent shall maintain sources P904 and P905 at Mingo Junction in compliance with OAC rule 3745-17-07(B)(1). To further minimize emissions from sources P904 and P905 and ensure continued compliance with OAC rule 3745-17-07(B)(1), Respondent shall improve the emission controls for sources P904 and P905 according to the following plan and schedule, and shall operate and maintain such emission controls thereafter:

Milestone	Completion Date
replace venturi scrubbers #1 and #2*	completed
replace vessel isolation dampers*	completed
replace P905 vessel hood shroud*	December 31, 1995
replace P904 vessel hood shroud*	December 31, 1996
install tapping fume suppression*	December 31, 1995

* See Attachment A for a detailed explanation of this project.

2. Respondent shall ensure that the operator-controlled charging of sources P904 and P905 is conducted in a manner which minimizes fugitive particulate emissions. This shall be accomplished by limiting the maximum BOF tilt angle during charging to no more than 40 degrees from the vertical and by slowly pouring the charge into each BOF.

3. Respondent shall employ, maintain and calibrate monitors for each venturi scrubber which measure the exhaust gas flow rate (in terms of fan motor amperage), scrubber water flow rate (in gallons per minute) and pressure drop (in inches of water). Minimum values for the above parameters, which will ensure continued compliance with the allowable particulate emission limitations, shall be based upon the stack tests required pursuant to Order 4 and shall be reported to the Ohio EPA by Respondent by no later than April 1, 1997. Ohio EPA shall then establish (by means of a letter from the Director) such minimum parameter values, or alternate values if it disagrees with the results reported by Respondent, as an ongoing obligation for the Respondent.

4. By March 1, 1997, Respondent shall conduct or have conducted particulate emission tests for sources P904 and P905 to demonstrate compliance with the particulate emission limitation in OAC rule 3745-17-11. The emission tests and test procedures shall be conducted in accordance with the test methods and procedures specified in OAC rule 3745-17-03(B)(10). The tests shall be performed while each source is operating at, or as close as is possible to, its maximum capacity.

Not later than thirty (30) days prior to the proposed test dates, Respondent shall submit an "Intent to Test" notification to the NOVAA. The Intent to Test notification shall describe, in detail, the times and dates of the tests, the proposed test methods and procedures, the source operating parameters, and the person who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in NOVAA's refusal to accept the results of the tests. Personnel from NOVAA shall be permitted to witness the tests, examine the testing equipment and acquire data and information regarding the sources' operating parameters. A comprehensive written report on the results of the emission tests shall be submitted to NOVAA within thirty (30) days following the completion of the tests.

5. Upon the effective date of these Orders, Respondent shall perform visible emissions readings of the fugitive emissions from the BOF roof monitor serving sources P904 and P905. The visible emissions readings shall be performed by certified readers in accordance with procedures contained in OAC rule 3745-17-03(B)(3). The observations shall include a minimum of four consecutive heats per week, balanced between the two BOFs over each calendar quarter, and shall be recorded on forms which have been approved by the Director. Therefore, for each calendar quarter, an approximately equal number of observations shall be performed for each of the sources P904 and P905. Observations shall commence when charging is initiated and shall end at the conclusion of the slagging operation.

6. Respondent shall conduct BOF charging, blowing, reblowing, tapping and slagging operations with full draft on the primary exhaust, except for any slagging operation on the last heat of a BOF which occurs before switching to the other BOF.

7. During each operating shift, Respondent shall record the following scrubber operating parameters:

a. pressure drop across the scrubber, in inches of water;
b. water flow rate, in gallons per minute; and
c. draft fan amperage (and indicate whether taken during blowing or non-blowing periods).

8. For each hot metal charging and tapping operation, Respondent shall record the following information:

a. maximum tilt angle from the vertical for each charge of hot metal;
b. start-time and end-time for each hot metal charging operation;
c. start-time and end-time for each hot metal tapping operation; and

The records shall be maintained for a period of not less than five years and shall be made available to any representative of Ohio EPA upon request.

9. Respondent shall submit to the NOVAA quarterly reports which provide the following information:

a. until compliance with the milestones in Order 1 is achieved, an explanation of the progress made in achieving compliance with such milestones by the corresponding completion dates;

b. if for any reason any recorded BOF tilt angle during charging exceeds the prescribed angle in Order 2, or any measured scrubber parameter (measured on or after the date that the Ohio EPA notifies Respondent in writing of the required minimum scrubber parameter values) exceeds any minimum parameter value established pursuant to Order 3:

   i. the date of the exceedance;
   ii. the time interval over which the exceedance occurred;
   iii. the value of the exceedance;
   iv. the cause(s) of the exceedance;
   v. the corrective action which has been taken or will be taken to prevent exceedances in the future; and
   vi. a copy of any chart which shows the exceedance; and

c. copies of the visible emission readings performed pursuant to Order 5.

These quarterly reports shall be submitted within thirty (30) days following the end of each calendar quarter.

VI. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to these Orders shall be undertaken in accordance with the requirements of all applicable local, state and federal laws and regulations. These Orders do not waive or compromise the applicability and enforcement of any statutes or regulations applicable to Respondent's facility.

VII. NOTICE

All documents required by these Orders, unless otherwise specified in writing, shall be submitted to:

814 Adams Street
Steubenville, OH 43952

and to:

Thomas Kalman
Ohio Environmental Protection Agency
Division of Air Pollution Control
P.O. Box 1049
Columbus, OH 43216-1049

VIII. RESERVATION OF RIGHTS

Nothing contained herein prevents the Ohio EPA from seeking legal or equitable relief to enforce the terms of these Orders or from taking other administrative, legal or equitable action as deemed appropriate and necessary, including seeking civil penalties against Respondent for the violations contained in these Orders and/or for noncompliance with these Orders. Nothing contained herein prevents the Ohio EPA from exercising its lawful authority to require Respondent to perform additional activities at the facility pursuant to ORC Chapter 3704 or any other applicable law in the future.

IT IS SO ORDERED:

Ohio Environmental Protection Agency

Donald R. Schregardus
Director

OCT 31 1995
Date

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Cavin Date 10-31-95

ATTACHMENT A

Replacement of Venturi Throat Scrubbers and Transitions

The existing venturi throat scrubbers and associated transition sections were replaced to provide a constant pressure drop sufficient to meet stack emission limitations. The installation of the new venturi throat scrubbers not only provides better cleaning of the gases, but it provides improved pick-up of emissions around the mouth of the hood. As part of the new larger variable throat venturi scrubber for each vessel, additional instrumentation was provided for pulpit feedback of operating conditions.

Replacement of Isolation Dampers

The present isolation dampers were replaced along with their operators to provide for better efficiency of the gas cleaning system.

Vessel Hood Shrouds

Shrouds will be hung around the mouth of the hoods to act as barriers to the rising fumes to hold them in position to be evacuated by the suction at the mouth of the hood.

Fume Suppression

WPSC is installing a fume suppression system at each BOF vessel, with separate lances, piping and controls. This system will inject natural gas over the ladle during tapping. The burning of natural gas over the ladle prevents oxygen from reaching the steel, thereby preventing chemical reactions that create particulates. This suppression system has an expected prevention efficiency of 90%.

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Cavin Date 10-31-95

O.E.P.A.