

BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:

Ford Motor Company
Cleveland Casting Plant
5600 Henry Ford Boulevard
Brook Park, Ohio 44142-1526

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Director's Final
Findings and Orders

DIRECTOR'S JOURNAL

OHIO E.P.A.
DEC 24 2003

PREAMBLE

It is agreed by the parties hereto as follows:

I. JURISDICTION

These Director's Final Findings and Orders ("Orders") are issued to Ford Motor Company ("Respondent") pursuant to the authority vested in the Director of the Ohio Environmental Protection Agency ("Ohio EPA") under Ohio Revised Code ("ORC") §§ 3704.03 and 3745.01.

II. PARTIES BOUND

These Orders shall apply to and be binding upon Respondent and successors in interest liable under Ohio law. No change in ownership of Respondent or of the Respondent's facility shall in any way alter Respondent's obligations under these Orders.

III. DEFINITIONS

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

IV. FINDINGS

All of the findings necessary for the issuance of these Orders pursuant to ORC 3704.03 and 3745.01 have been made and are outlined below. Nothing in the findings shall be considered to be an admission by Respondent of any matter of law or fact. The Director of Ohio EPA has determined the following findings:

1. Respondent is a corporation duly organized under the laws of the State of Delaware, which owns and operates the Cleveland Casting Plant ("CCP"), located at 5600 Henry Ford Boulevard, Brook Park, Cuyahoga County, Ohio. This facility is identified by Ohio EPA as facility identification number 1318120180.

I certify this to be a true and correct copy of the
original of the above titled document of the Ohio
Environmental Protection Agency.
[Signature] 12-24-03

2. This facility is a foundry that began operations in 1952. This facility produces cast iron engine parts. There are three main stages to this process: core and mold making, metal refining and pouring, and finishing. The foundry process includes many ancillary processes such as mold sand reclamation, scrap metal and sand processing, building and process heating, chemical storage tanks, plant roadways and parking lots, and parts washing.

3. Permit to Install ("PTI") # 13-1639, issued October 29, 1986, restricts particulate emissions from emissions unit ("EU") P112 (#1 Mold Line Conveyor) to no more than 6.2 lbs/hour, from EU P114 (Mold Line Cope and Drag Punch-Up) to no more than 2.5 lbs/hour, and from EU P113 (Mold Line Casting Shake out) to no more than 1.8 pounds per hour. OAC Rule 3745-17-12(I)(13), adopted during 1991, revised the calculation methodology (flow apportionment) and established a new combined limit of 10.5 pounds per hour for EU P112 and P114, and OAC Rule 3745-17-12(I)(3)(a) established a new grain loading limitation of 0.0063 gr/dscf (3.08 lbs/hr). Performance tests conducted in March of 1999, indicated that the total particulate emissions from EUs P112 and P114 totaled 10.3 lbs/hour, in violation of PTI #13-1639 and ORC §3704.05(C); however, according to the revised calculation methodology, these emission units are in compliance with OAC Rule 3745-17-12(I)(3) and (13). Ohio EPA agrees that the particulate emission limitations in OAC Rules 3745-17-12(I)(3) and (13) supersede the limitations in PTI #13-1639. Respondent will work with Ohio EPA to modify the requirements of PTI #13-1639.¹

4. The Fee Emission Report ("FER") for EU P056 (Core Line #5), submitted on April 10, 2002, showed the triethylamine (TEA) emissions to be 1.09 pounds per hour. Respondent submitted a PTI application on August 29, 2002, to correct the 0.1 pound per hour factor used in the original permit with a 0.1 pound per ton of core sand factor. Respondent contends that the contractor who prepared the original PTI application erroneously included a pound per hour factor, rather than the pound per ton of sand factor. This is confirmed by the Core Line 7 (EU P106) permit, a permit for a similar process which contained the correct factor of 0.1 pound per ton of core sand, issued in July 1993 and November 1989. While the actual emissions exceeded the 0.1 pound per hour allowable in PTI # 13-1362, they were not in excess of the proposed pound per ton of sand factor. This was simply an inadvertent clerical error in the application and permit processing.

5. On May 7-9, May 14-16, May 30, and June 3, 2002, staff from the City of Cleveland, Division of Air Quality ("Cleveland"), Ohio EPA's contractual representative in Cuyahoga County, conducted comprehensive inspections of the Brook Park facility to determine compliance with all state and federal air pollution control regulations.

¹ PTI 13-1639 established limits (total 34.35 lbs/hr) for the various pieces of equipment (emission units) comprising of the Mold Line No. 1 based on estimating their exhaust requirements. Subsequently, as part of the PM10 SIP development, revised estimates were used (total 25.2 lbs/hr). Emissions unit comparisons of the PTI versus the rule yields P110: 3.5 v. 1.3, P111: 3.5 v. 0.8, P112 & P114: 6.2 & 2.5 v. 10.5, P113: 1.8 v. 3.08, P115: 5.7 v. 2.72, P116: 1.6 v. 0.76, P117: 2.85 v. 1.36, P118: 1.5 v. 0.74, P119: 2.1 v. 1.48, P120: 3.1 v. 1.48, and the total of 34.35 v. 25.2.

6. During the inspection on May 8, 2002, visible fugitive emissions were observed from EU P099 (Cupola 1 Holding Furnace) and the opacities of such emissions were recorded, using a USEPA Reference Method 9 test. The results indicated visible fugitive emissions of 28.3%, as a three-minute average, in excess of the 20% allowable, in violation of OAC Rule 3745-17-07(B)(1) and ORC § 3704.05(A) and (G).

7. Control device observations during the May 7-16, 2002 inspections included the following:

a. EU P056 no longer vents to Enviroengineering Wet Scrubbers #3 and #5 and baghouse #11, as required by PTI # 13-1362. CCP listed equivalent-technology Wet Scrubber #4 and Collectors #10-12 in its September 26, 1996 Title V operating permit application for EU P056. This is a violation of the PTI and ORC § 3704.05(C). Collector #11 was a small collector and was shut down because it was subsequently determined to be unnecessary. This collector was removed from the Title V permit application as described in the amendment submitted by Respondent on June 14, 2001. These changes were made in accordance with OAC Rule 3745-17-12(I)(50). On August 29, 2002, pursuant to OAC Rule 3745-17-12(I)(50), Respondent submitted an application to modify PTI #13-1362 to show the revised control equipment configuration. A modeling analysis was not submitted by Respondent to support the application, nor was a demonstration submitted to show that a modeling analysis was not required. This PTI application remains pending at Cleveland.²

b. EUs P411 and P908 (OSCI-Rocker Barrel Blast and Shot Reclaim and Refuse System) no longer use Western Precipitation Pulse Baghouse #94 for particulate emission control. Due to the partial reduction of P908 and other source reductions, the pulse flow baghouse became unnecessary to handle the exhaust requirements; therefore, it was shut down. P908 remains controlled by A-Unit baghouse and P411 remains controlled by the C-Unit baghouse, consistent with OAC Rule 3745-17-12(I)(7)(a)&(c). On September 3, 2002, pursuant to OAC Rule 3745-17-12(I)(50), Respondent submitted an amended Title V permit application to show the revised control equipment. This Title V permit application is currently being processed by Cleveland and Ohio EPA.³

2 OAC Rule 3745-17-12(I)(50) provides for changes when addressed by Title V permit or PTI actions. In addition to addressing this "change" under the Title V permit, there was no increase emissions or source modification as the control technology employed is equivalent to (or better than) that considered in the original PTI application.

3 Both A-Unit and C-Unit baghouses are multiple-fan systems serving multiple source systems. Given the shutting down of some process equipment, the consolidation of control systems was appropriate and thus the single-fan pulse flow baghouse was eliminated. Note that EU P908 is also controlled by C-Unit baghouse as listed in the September 3, 2002 Title V amendment.

c. EU P912 (Sand Mullors/Sand Handling System) no longer uses all of the Environeering Wet Scrubbers #1, #3, #4 and #6 for particulate emission control as listed in OAC Rule 3745-17-12(I)(45). In particular, EU P912 is only controlled by Wet Scrubbers #4 and #6, as a portion of EU P912 is no longer being operated. On September 3, 2002, pursuant to OAC Rule 3745-17-12(I)(50), Respondent submitted an amended Title V permit application to show the revised control equipment configuration. This Title V permit application is currently being processed by Cleveland and Ohio EPA.⁴

8. On June 10, 2002, Cleveland met with representatives of Respondent to discuss the findings of the May/June 2002 inspection.

9. By letter dated June 17, 2002, Cleveland issued a notice of violation ("NOV") to Respondent for violations that were discovered during the May 2002 inspection. Respondent was requested to submit a corrective action plan to address the violations and other areas of concern identified by Cleveland, within fourteen (14) days of receipt of the NOV.

10. Additionally, the June 17, 2002, NOV cited several areas of concern, specifically possible violations of the public nuisance regulation for odors, the status of the equivalent visible particulate emissions limitations (EVELs), and the rule applicability with regard to the hot-box core machines.

11. During the May/June 2002 inspection, Cleveland confirmed that EU P419 (Desulphurization Unit) was constructed and began operation without Respondent first obtaining a PTI. Respondent advised Cleveland of its plans by letters dated November 6, 1998, and February 17, 1999, to relocate a current unit or to construct a replacement/alternate desulphurization unit near Cupola No. 1 which would only be used when the current unit associated with Cupola No. 7 is inactive. The purpose of this notification was to allow Cleveland to advise Respondent if it interpreted the rules differently and required a PTI for the project. The initiation of construction was in January 2000. Over one year after Respondent's initial notification to Cleveland, the Agency requested submittal of a PTI application from Respondent, by letter dated November 9, 2000. A PTI application was subsequently submitted to Cleveland on January 4, 2001. Installation of an EU without first obtaining a required PTI is a violation of OAC Rule 3745-31-02(A) and ORC § 3704.05(G).

12. By letter dated July 3, 2002, Respondent submitted a response to the June

⁴ EU P912 has several process units and related exhausts and formerly was classified as P070 through P074. Some of process units have been shut down, eliminating the need for Wet Scrubbers #1 and #3. This change was reflected in the Title V permit amendment submission in September 2002.

17, 2002 NOV. The response letter outlined Respondent's intention to submit a PTI application for EU P056, to submit an amended Title V permit application to address the control equipment changes cited for EUs P411, P908, and P912, and to review the emission factors that were being used to calculate the emissions reported in the FERs to ensure that correct data were submitted to Ohio EPA.

13. As previously requested by Cleveland on February 8, 1999, Respondent submitted a test matrix to Cleveland for consideration to address the need for representative testing. On August 28, 2002, Cleveland, Ohio EPA, and Respondent met to discuss all issues that had arisen from the May/June 2002 inspection, and subsequent correspondence between Cleveland and Respondent. During this meeting, Cleveland provided Respondent with a complete list of PTIs having stack test provisions for various EUs. Respondent provided explanations regarding the list and their rationale for compliance based on representative testing. Cleveland was unable to assess the compliance status of the sources/stacks for which EVELs were yet pending. Respondent again requested EVELs for stacks H-40, D-32, C-18, and C-19 as requested years ago. Cleveland and Ohio EPA agreed to these requests. Cleveland indicated that Ohio EPA would address the remaining EVEL requests at a later date as part of the Title V permit.

14. On October 1, 2002, Cleveland issued a Notification and follow-up to the June 17, 2002 NOV to Respondent. The Notification outlined in detail the PTI performance test requirements that had not been conducted, or were not timely conducted, for the EUs at the facility, in violation of the applicable PTIs and ORC 3704.05 (C). The information is provided in Table I.

Table I – PTI- Listed Stack testing requirements for the Respondent's facility

PTI # (13 -)	Emissions units	Effective date of PTI	Date tests were required	Date that tests were performed
01362	P056 (Core Line No. 5)	02/12/86	No date specified ⁵	Representative testing was performed in August 1995
01501	P102 (No. 3 Cooler V-6 Unhook Station)	01/15/86	No date specified ⁶	
02663	P106 (Core Line No. 7)	07/08/93	Within the initial 90 days of operation	Tested TEA scrubber April 1995
01639	P110, P113, P114, P115, P116, P118 P111, P112, P114 (Mold Line No. 1)	10/29/86	Within the initial 90 days of operation	Tested mold line sources in November 1989 and March 1999
02078	P160, P161, P162 (a.k.a. P140) (Mold Line No. 2 Furnace)	04/04/90	Within the initial 90 days of operation	Tested September / October 1983
02658	P192, P193, P194 (Mold Line No. 3 Furnace)	03/24/93	Within the initial 90 days of operation	Tested D-unit baghouse May 1984
03064	P416 (5L Core Line)	11/14/96	Within the initial 90 days of operation	Representative testing August 1995

⁵ Ford submitted an Intent-to-Test notification to CLAA April 18, 1990 requesting a meeting in May 1990. No further action was taken by CLAA.

⁶ CLAA recommended P102 be placed on "registration status" November 14, 1986.

It has been determined that the emission testing requirements for the above-mentioned emissions units and other emission units at this facility will be defined in the Title V permit that is currently being processed by Cleveland and Ohio EPA.

15. Since June 1, 2001, Cleveland has received approximately 30 odor complaints that were attributed to Respondent. These complaints prompted Cleveland to develop an odor survey, which was distributed on February 15, 2002, to four communities surrounding Respondent's facility. The purpose of the survey was to determine the source of the odor complaints. Cleveland provided sanitized copies of the survey responses to CCP during a May 30, 2002 meeting. Of the 1502 solicited responses, 44 responded that they had occasionally detected odors and that CCP, the airport, jets, or something else was the likely cause of the odor. As a result of the odor survey and the complaints that preceded its development, Cleveland and Respondent developed and implemented a joint complaint response procedure to evaluate any further odor complaints after October 1, 2002. Since that time, there have only been four odor complaints and none were determined to result from CCP operations.

16. On June 30, 2003, Respondent sent a letter to Cleveland requesting a PTI exemption or permit amendment to formally evaluate a new catalyst, dimethylisopropylamine (DMIPA), in place of TEA in the following EUs: P414, P106, P416, P506, P412, P702-P704, and P706-P711. By letters dated September 22 and October 28, 2003, Ohio EPA granted PTI exemptions to allow the evaluation of DMIPA. Before Ohio EPA issued the PTI exemptions, Respondent discovered that the Ford CCP and Aluminum Plant, without intending to violate the PTI exemption requirements, had begun experimenting with DMIPA. Respondent reported this to Cleveland and Ohio EPA on September 24, 2003. Respondent's use of the DMIPA before the PTI exemptions were granted may have been a violation of OAC Chapter 3745-31 and ORC §3704.05.

17. 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

The Director hereby issues the following Orders:

1. For the pending application to modify PTI 13-1362, by not later than February 29, 2004, Respondent shall submit to Cleveland either a modeling analysis pursuant to OAC Rule 3745-17-12(I)(50), or a demonstration that a modeling analysis is not required.

2. Pursuant to ORC §3704.06, Respondent is assessed a civil penalty in the amount of forty thousand dollars (\$40,000) in settlement of Ohio EPA's claim for civil

penalties. By January 31, 2004, or within fourteen (14) days after the effective date of these Orders, whichever is later, Respondent shall pay to Ohio EPA the amount forty thousand dollars (\$40,000). Payment shall be made by an official check made payable to "Treasurer, State of Ohio" and sent to Brenda Case, Fiscal Specialist, or her successor at the following address:

Brenda Case
Fiscal Administration
Ohio Environmental Protection Agency
P.O. Box 1049
Columbus, OH 43216-1049

A copy of the check shall be sent to Jim Orlemann at the following address

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

VI. TERMINATION

Respondent's obligations under these Orders shall terminate when Respondent certifies in writing and demonstrates to the satisfaction of Ohio EPA that Respondent has performed all other obligations under these Orders and the Chief of Ohio EPA's Division of Air Pollution Control acknowledges, in writing, the termination of these Orders. If Ohio EPA does not agree that all obligations have been performed, then Ohio EPA will notify Respondent of the obligations that have not been performed, in which case Respondent shall have an opportunity to address any such deficiencies and seek termination as described above.

The certification shall contain the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate and complete."

The certification shall be submitted by Respondent to Ohio EPA and shall be signed by a responsible official of Respondent. For purposes of these Orders, a responsible official is a corporate officer or a duly authorized representative who is in charge of a principal business function of Respondent.

VII. OTHER CLAIMS

Nothing in these Orders shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership or corporation, not a party to these Orders, for any liability arising from, or related to the operation of Respondent's Facility.

VIII. 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 other statutes or regulations applicable to Respondent.

IX. MODIFICATIONS

These Orders may be modified by agreement of the parties. Modifications shall be in writing and shall be effective on the date entered in the journal of the Director of Ohio EPA.

X. NOTICE

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

City of Cleveland
Department of Public Health and Welfare
Division of Air Quality
1925 St. Clair Avenue
Cleveland, Ohio 44114
Attn: George Baker

and to:

Ohio Environmental Protection Agency
Division of Air Pollution Control
P.O. Box 1049
Columbus, Ohio 43216-1049
Attn: Paul Cree

or to such persons and addresses as may be otherwise specified in writing by Ohio EPA.

XI. RESERVATION OF RIGHTS

Ohio EPA and Respondent each reserve all rights, privileges and causes of action, except as specifically waived in Section XII of these Orders.

XII. WAIVER

In order to resolve disputed claims, without admission of fact, violation or liability, and in lieu of further enforcement action by Ohio EPA for only the violations specifically cited in these Orders, Respondent consents to the issuance of these Orders and agrees to comply with these Orders. Compliance with these Orders shall be a full accord and

satisfaction for Respondent's liability for the violations specifically cited herein

Respondent hereby waives the right to appeal the issuance, terms and conditions, and service of these Orders, and Respondent hereby waives any and all rights Respondent may have to seek administrative or judicial review of these Orders either in law or equity.

Notwithstanding the preceding, Ohio EPA and Respondent agree that if these Orders are appealed by any other party to the Environmental Review Appeals Commission, or any court, Respondent retains the right to intervene and participate in such appeal. In such an event, Respondent shall continue to comply with these Orders notwithstanding such appeal and intervention unless these Orders are stayed, vacated or modified.

XIII. EFFECTIVE DATE

The effective date of these Orders is the date these Orders are entered into the Ohio EPA Director's journal.

XIV. SIGNATORY AUTHORITY

Each undersigned representative of a party to these Orders certifies that he or she is fully authorized to enter into these Orders and to legally bind such party to these Orders.

IT IS SO ORDERED AND AGREED:

Ohio Environmental Protection Agency



Christopher Jones
Director

12-22-03
Date

IT IS AGREED:

Ford Motor Company
Cleveland Casting Plant



Signature

12/19/03
Date

Thomas J. DeZure
Assistant Secretary

Printed or Typed Name

Title