BEFORE THE

OHIO ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:

Elkem Metals Company
2700 Lake Road East
Ashtabula, Ohio 44405-0040

Director's Final Findings and Orders

PREAMBLE

It is agreed by the parties hereto as follows:

I. JURISDICTION

These Director's Final Findings and Orders (“Orders”) are issued to Elkem Metals 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 the Respondent or of the facility (as hereafter defined) 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

The Director of Ohio EPA has determined the following findings:

1. Respondent owns and operates a calcium carbide manufacturing facility located at 2700 Lake Road East, Ashtabula, Ohio. This facility, formerly owned by Union Carbide, has been in operation since 1942. Respondent purchased the facility from Union Carbide in 1981.

2. At the above-referenced facility, Respondent operates the following emissions units:
3. All of the above-referenced emissions units are “air contaminant sources” as defined in Ohio Administrative Code (“OAC”) Rules 3745-15-01(C) and (W), and 3745-35-01(B)(1), and ORC § 3704.01(C).

4. Respondent’s facility is a “major source” of air pollutants, as defined in OAC Rule 3745-77-01(W), based on information from Respondent’s Title V permit application, which was submitted to Ohio EPA on February 24, 1996, that the potential to emit (“PTE”) of particulate matter exceeds the threshold of 100 tons per year (“TPY”).

5. Since Respondent’s facility is a major source, the facility is a “Title V source,” as defined in OAC Rule 3745-77-01(LL), and is subject to the Title V permit requirements of OAC Rule 3745-77-02.

6. OAC Rule 3745-77-02 prohibits the operation of a Title V source after the date that a complete and timely Title V permit application is required to be submitted under OAC Rule 3745-77-04, unless such facility is in compliance with a Title V permit issued under this rule or a timely Title V permit application has been submitted for which the Director has not issued a final incompleteness determination. Respondent was required to submit a Title V permit application to Ohio EPA, as required by OAC Rule 3745-77-02, by no later than

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### Emissions Unit Description

<table>
<thead>
<tr>
<th>Emissions Unit Description</th>
<th>Emissions Unit Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roads and Parking Areas</td>
<td>F001</td>
</tr>
<tr>
<td>C1 P Calcium Carbide Pack</td>
<td>P001</td>
</tr>
<tr>
<td>Lime Size/Store/Ship</td>
<td>P008</td>
</tr>
<tr>
<td>Lime Kiln #3</td>
<td>P009</td>
</tr>
<tr>
<td>Lime Kiln #2</td>
<td>P010</td>
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<tr>
<td>S Coke Dry/Hand</td>
<td>P025</td>
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<tr>
<td>Carbide Mix Feed System</td>
<td>P027</td>
</tr>
<tr>
<td>Furnace #13</td>
<td>P905</td>
</tr>
<tr>
<td>Furnace #14</td>
<td>P906</td>
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</tbody>
</table>

The above-listed emissions units were installed and began to operate between 1943 and 1965.
November 30, 1995, as specified in OAC Rule 3745-77-04. Ohio EPA granted an automatic 3-month extension of this deadline to February 28, 1996.

7. OAC Rule 3745-77-02(F) requires owners and operators to include fugitive emissions from a Title V source in the Title V permit application. OAC Rule 3745-77-03(C)(3) requires the owners or operators to include the emission-related information in the Title V permit application. Also, Title V permits require the owners or operators of Title V sources to submit compliance certifications annually, stating whether or not the terms and conditions contained in their Title V permits have been met.

8. OAC Rule 3745-78-02(A) requires an owner or operator of a facility that is subject to the Title V permit program to submit annual fee emission reports that identify the actual emissions of specified air pollutants and to pay fees for such emissions upon receipt of invoices from Ohio EPA. The first fee emission report was due by June 15, 1994 for calendar year 1993, and subsequent reports were due by April 15 of each year thereafter for the previous calendar year.

9. ORC § 3704.05(C) prohibits any person from violating the terms and conditions of any permit issued by the Director of Ohio EPA. ORC § 3704.05(G) prohibits any person from violating any rule adopted by the Director of Ohio EPA. ORC § 3704.05(J)(2) prohibits, in part, any person from violating any terms and conditions of a Title V permit and any applicable filing requirement of the Title V permit program. ORC § 3704.05(K) prohibits any person from operating a Title V facility after the applicable deadline without either timely applying for a Title V permit or possessing a Title V permit from Ohio EPA.

10. On March 14, 1996, Respondent submitted to Ohio EPA a complete Title V permit application for its facility.

11. On March 16, 2000, Ohio EPA issued a Title V permit to Respondent for its facility.

12. On August 31, 2001, Respondent submitted its annual Title V compliance certification report for 2000 (due by April 30, 2001) which did not contain all of the required information. Specifically, it was missing all 4th quarter information. Respondent was in violation of the Title V permit terms and conditions (Part I.A.) and ORC § 3704.05(C) and (J)(2). Ohio EPA, Northeast District Office (“NEDO”) issued a warning letter to Respondent on July 20, 2001 for not submitting a timely certification and granted an extension to submit the certification until August 31, 2001; however, Respondent did not submit an amended complete report by August 31, 2001.

13. On October 19, 2001, NEDO attended a presentation given by Respondent. At this presentation, Respondent informed NEDO that there were considerable acetylene emissions from its production of calcium carbide. Prior to this date, Respondent had not reported any acetylene emissions from this facility to Ohio EPA.
14. On January 18, 2002, NEDO issued a Notice of Violation ("NOV") to Respondent for its failure to obtain permits to operate and a Title V permit that included the acetylene emissions. NEDO also cited Respondent for its failure to file accurate annual Title V fee emission reports and pay the proper fees. In this NOV, NEDO requested Respondent, within 60 days of receipt of this NOV, to submit detailed documentation since 1974 of production and maintenance records in order for NEDO to make a determination on whether the prevention of significant deterioration ("PSD") regulations would be applicable for Respondent’s calcium carbide manufacturing process.

15. On February 12, 2002, Respondent informed NEDO that there had been no changes made to its process that would change the potential or actual emissions to trigger permit to install ("PTI") or PSD requirements. Respondent proposed that it would update its Title V permit application and fee emission reports to account for the acetylene emissions.

16. On October 28, 2003, Ohio EPA issued a Director’s warning letter ("DWL") to Respondent for its violations of OAC Rules 3745-77-02, 3745-77-03, 3745-77-07, and 3745-78-02, and ORC § 3704.05(C), (G) and (J)(2) that were associated with Respondent’s current calcium carbide manufacturing operation. Ohio EPA requested Respondent to: (1) by November 15, 2003, submit complete quarterly deviation reports for the 1st and 4th quarters of 2000, complete semi-annual deviation reports for the period from July 31, 2000 to July 31, 2003, amended fee emission reports to include acetylene emissions for the calendar years from 1993 through 2002, and pay new fees accordingly; and (2) by December 15, 2003, submit an amended Title V permit application for its facility to include acetylene emissions.

17. On November 13, 2003, Respondent submitted to NEDO the quarterly reports of deviations from emission limitations and operating restrictions for the 1st and 4th quarters of 2000 and a complete annual compliance certification for the calendar year 2000.

18. On November 18, 2003, Respondent submitted to NEDO the semi-annual deviation reports for the time period from January 2000 to June 30, 2003. From July 31, 2000 to November 18, 2003, Respondent failed to timely submit the semi-annual deviation reports for its facility for the above-mentioned time period, in violation of ORC § 3704.05(C) and (J)(2).

19. By a letter dated January 19, 2004 to NEDO, Respondent further responded to the Ohio EPA’s October 28, 2003 DWL. Respondent informed NEDO that an updated Title V permit application was submitted on February 28, 2003 to include fugitive acetylene emissions. Also, Respondent informed Ohio EPA that, as of January 19, 2004, Respondent had timely submitted the correct Title V fee emission report for the year 2002 to include the emissions of acetylene but proposed that it would not revise any previous fee emission reports.
20. By a NOV dated May 18, 2004 to Respondent, NEDO reminded Respondent to submit the amended fee emission reports that were requested in the October 28, 2003 DWL from Ohio EPA. NEDO cited Respondent for its failure to perform a stack test for emission units P905 and P906 within the first 12 months from the date of issuance of the Title V permit. Also, NEDO cited Respondent for operating emissions unit P027 without the use of control equipment from approximately October 2001 to October 2002 when Respondent was replacing the existing baghouses and cyclones with a new baghouse for this emissions unit. NEDO requested Respondent, within 14 days of receipt of the NOV, to submit a completed Notification of Intent to Test form for emissions units P905 and P906.

21. By a letter dated June 7, 2004 to NEDO, Respondent responded to NEDO’s May 18, 2004 NOV. Respondent informed NEDO that it would notify Ohio EPA in the near future of its intent to test emissions units P905 and P905; however, Respondent did not provide any tentative deadline.

22. From February 28, 1996 to March 14, 1996, Respondent operated its facility without timely applying for a Title V permit or possessing a Title V permit for its facility from Ohio EPA and failed to file a complete Title V permit application by the deadline of November 30, 1995, which was extended to February 28, 1996 by Ohio EPA, in violation of OAC Rules 3745-77-02, 3745-77-04(B)(1) and ORC § 3704.05(G) and (K).

23. According to NEDO, Respondent operated emissions unit P027 without the use of control equipment from approximately October 2001 to October 2002, in violation of the terms and conditions of its Title V permit and ORC § 3704.05(C) and (J)(2).

24. From July 31 to August 31, 2001, Respondent did not timely submit a quarterly report of deviations from emission limitations and operating restrictions for the 2\textsuperscript{nd} quarter of 2001 as required pursuant to its Title V permit, in violation of ORC § 3704.05(C) and (J)(2).

25. From April 30, 2000 to November 13, 2003, Respondent failed to submit quarterly reports of deviations from emission limitations and operating restrictions for the 1\textsuperscript{st} and 4\textsuperscript{th} quarters of 2000 as required pursuant to its Title V permit, in violation of ORC § 3704.05(C) and (J)(2).

26. From April 30 to August 31, 2001, Respondent failed to timely submit an annual compliance certification for 2000 as required pursuant to its Title V permit, in violation of ORC § 3704.05(C) and (J)(2).

27. From June 15, 1994 to the present, Respondent failed to submit fee emission reports that quantify the actual emission data for all criteria pollutants for calendar years 1993 through 2001, in violation of OAC Rule 3745-78-02(A) and ORC § 3704.05(G) and (J)(2).

28. From February 28, 1996 to February 28, 2003, Respondent failed to identify fugitive emissions from its Title V source in the Title V permit application, in violation of OAC...
29. From February 28, 1996 to February 28, 2003, Respondent failed to provide acetylene emissions-related information in its Title V permit application, in violation of OAC Rule 3745-77-03(C)(3) and ORC § 3704.05(G) and (J)(2).

30. According to NEDO, for approximately 79 days during the 2nd, 3rd and 4th quarters of 2002, Respondent failed to keep the records of daily roadway inspections for emissions unit F001 that are required in section A.III.4 of the terms and conditions of its Title V permit, in violation of this section of the Title V permit and ORC § 3704.05(C) and (J)(2). In addition, for approximately 38 weeks in 2000, 48 weeks in 2001 (for emissions units P001 and/or P025), and 17 weeks in 2002 (for emissions unit P001), Respondent failed to keep the records of the weekly inspection logs of the physical integrity of the multiple cyclone systems that are required in section A.III.2 of the terms and conditions of its Title V permit, in violation of this section of the Title V permit and ORC § 3704.05(C) and (J)(2). Also, for approximately 200 days in 2000, 60 days in 2001 and 59 days in 2002, Respondent failed to maintain records of readings of pressure drops across the baghouses that are required in sections A.III.1, A.III.2, A.III.3 and A.III.4 of the terms and conditions of its Title V permit for at least one or more of the following emissions units: P001, P008, P025, P027, P905 and P906, in violation of these sections of the Title V permit and ORC § 3704.05(C) and (J)(2). According to NEDO, Respondent began to maintain the above-referenced records in January 2003.

31. From March 16, 2000 to November 2002, for approximately 845 days, Respondent failed to maintain the pressure drops across the baghouses within the ranges that were specified in sections A.II.1 and A.II.2 of the terms and conditions of its Title V permit for one or more of the following emissions units: P001, P025, P027, P905 and P906, in violation of these sections of the Title V permit and ORC § 3704.05(C) and (J)(2).

32. According to NEDO, from November 2002 to the present, Respondent failed to maintain the pressure drops across the baghouses within the ranges that were specified in the Settlement Agreement, which was finalized on November 15, 2002, for emissions units P008, P010, P027, P905 and P906, as a result of an appeal of its Title V permit to the Environmental Review Appeal Commission (“ERAC”), in violation of ERAC Title V Settlement Agreement and ORC § 3704.05(G) and (J)(2).

33. Respondent failed to conduct the first required stack test for emissions units P009 and P010 within 12 months after issuance of the Title V permit, in violation of section A.V.2.a of the terms and conditions of the Title V permit and ORC § 3704.05(C) and (J)(2). Also, Respondent failed to conduct the first required stack test for emissions units P905 and P906 within 12 months after issuance of the Title V permit, in violation of section A.V.2.c of the terms and conditions of the Title V permit and ORC § 3704.05(C) and (J)(2).
34. In correspondence dated November 29, 2004, Respondent submitted information demonstrating an inability to pay a civil penalty for the past violations of law noted in these Orders. Respondent provided additional information regarding its inability to pay a civil penalty in a meeting with Ohio EPA held on December 16, 2004.

35. 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 relation to benefits to the people of the State to be derived from such compliance.

V. ORDERS

The Director hereby issues the following Orders:

1. By not later than ninety (90) days after the effective date of these Orders, and pursuant to OAC Chapter 3745-78, Respondent shall submit to Ohio EPA amended fee emission reports for the years from 1993 through 2001 for its facility that include the quantity of acetylene emissions for each such year, and shall pay emission fees according to invoices to be sent to Respondent by Ohio EPA after receipt of the reports. The total of such emission fees shall not exceed the amount of Three Hundred Thirty-Six Thousand, Two Hundred Eighty-Eight Dollars and Forty-Four Cents ($336,288.44).

2. By not later than thirty (30) days prior to start-up of emissions units P009, P010, P905 and/or P906, Respondent shall notify Ohio EPA of start-up of each such emissions unit. By not later than ninety (90) days after the start-up of any one or more of emissions units P009, P010, P905 and P906, Respondent shall conduct, or have conducted, stack tests for such emissions unit(s) pursuant to the testing requirements of the Title V permit for the facility, and shall demonstrate compliance with the applicable emission limitations therein. By not later than thirty (30) days prior to the proposed test date(s), Respondent shall submit to Ohio EPA a completed Notification of Intent to Test ("ITT") form for the stack testing of these emissions units. The ITT notification form shall describe in detail the proposed test methods and procedures, each emissions unit’s operating parameters, the time(s) and date(s) of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in Ohio EPA’s refusal to accept the results of the emission tests.

Personnel from Ohio EPA shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of each emissions unit and the testing procedures provide a valid characterization of the emissions from each emissions unit and/or the performance of the control equipment.
A comprehensive written report on the results of stack tests shall be signed by the person or persons responsible for the tests and submitted to Ohio EPA within thirty (30) days following completion of the tests. Respondent may request additional time for the submittal of the written report, where warranted, with prior approval from Ohio EPA.

3. By not later than thirty (30) days after the effective date of these Orders, Respondent shall comply with required ranges for the pressure drops across the baghouses that were specified in the ERAC Title V permit Settlement Agreement for emissions units P001, P025, P027, P905 and P906.

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 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 the person authorized to sign in OAC Rule 3745-35-02(B)(1) for a corporation or a duly authorized representative of Respondent as that term is defined in the above-referenced rule.

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

Except as otherwise specified in these Orders, all documents required to be submitted by Respondent pursuant to these Orders shall be addressed to:

Ohio EPA, Northeast District Office
2110 E. Aurora Road
Twinsburg, Ohio 44087-1969
Attn: Anthony Becker

and to:

Ohio Environmental Protection Agency
Division of Air Pollution Control
Lazarus Government Center
P.O. Box 1049
Columbus, Ohio 43216-1049
Attn: Thomas Kalman

or to such persons and addresses as may hereafter 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 specially 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, including any and all civil penalties, 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         Date
Director

IT IS SO AGREED:

Elkem Metals Company

________________________________________  ______________
Signature                  Date

Printed or Typed Name

________________________________________
Title