

APPENDIX D

ALCOA, INC. AGREED ORDER 2000-0032-AIR

REGIONAL STRATEGY

APRIL 2000 REVISION

**IN THE MATTER OF AN
AGREED ORDER
CONCERNING
ALCOA INC.
ACCOUNT NO. MM-0001-T**

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**BEFORE THE
TEXAS NATURAL RESOURCE
CONSERVATION COMMISSION**

**AGREED ORDER
DOCKET NO. 2000-0032-SIP**

The Texas Natural Resource Conservation Commission (the Commission or TNRCC) hereby orders Alcoa Inc., formerly known as Aluminum Company of America, (the Company) to comply with the requirements herein regarding control of emissions of nitrogen oxide (NO_x) from the facilities referenced below, pursuant to §§ 382.011, 382.012 and 382.023(a) of the Texas Clean Air Act (the Act), Texas Health & Safety Code, Chapter 382, and § 110 of the Federal Clean Air Act, 42 U.S.C. § 7401 et seq., for the purpose of revising the Texas State Implementation Plan (SIP) for Ozone Control. The Executive Director of the Commission and the Company have agreed on these control requirements, subject to the approval of the Commission. The parties enter into this Agreed Order for the purpose of making the Company's standard permit for a pollution control project at the Boiler No. 2 of the power plant and pollution control projects for Boiler Nos. 1 and 3 at the Company's Rockdale Operations and the associated reduction in emissions of nitrogen oxide (NO_x) a part of the SIP.

I. STIPULATIONS

For the purpose of this Agreed Order, the parties have agreed and stipulated as follows:

1. Section 110 of the Federal Clean Air Act, 42 U.S.C. § 7401 et seq., requires Texas to submit to the United States Environmental Protection Agency (EPA) for approval SIP revisions and to demonstrate that such SIP revisions provide protection of the National Ambient Air Quality Standards (NAAQS) and the Prevention of Significant Deterioration (PSD) increments for NO_x.

2. The Company owns and operates a primary aluminum smelting plant and three units of a lignite-fueled power plant [commonly known as Sandow One, Two and Three] (the plant), located near Rockdale, Milam County, Texas.

3. The plant consists of one or more sources as defined in §382.003(12) of the Act.

4. In 1997, the Company reported in its Emissions Inventory emissions of NO_x for the following facility identification numbers (FIN) and emission point numbers (EPN) at the plant for a total of 19,460.6 tons per year (tpy):

Boiler No. 1 FIN P17-1/EPN 17A 6,582.7 tpy

Boiler No. 2 FIN P17-2/EPN 17A 5,449.0 tpy

Boiler No. 3 FIN P17-3/EPN 17B 7,428.9 tpy

5. In accordance with the terms of this Order, the Company agrees to reduce the NO_x emissions reported to the TNRCC Emissions Inventory in 1997 by a factor of 30% for a reduction of 5,838.2 tpy, resulting in a maximum allowable emissions totaling 13,622.4 tpy from the three facilities listed in paragraph 4 above.

6. On October 18, 1999, the Company submitted its registration form PI-1S for a standard permit, as authorized by 30 TAC §116.617, to modify the windbox compartment by installing a separate overfire air in Boiler No. 2 (FIN P17-2) at the plant. This modification is expected to result in an estimated total reduction of a minimum of approximately 904.6 tons per year of NO_x emissions at the plant. On December 1, 1999, the TNRCC has determined that the modification of the windbox compartment of Boiler No. 2 meets the requirements for a standard permit and has authorized the proposed project as Standard Permit No. 42739. The Company agrees to complete this modification no later than December 31, 2000 and is required to operate Boiler No. 2 in compliance with all requirements of 30 TAC §116.617.

7. As a result of this modification, NO_x emissions from Boiler No. 2 will be reduced to a level not to exceed 1168.0 pounds per hour (lb/hr) and 5115.8 tpy, and emissions of carbon monoxide (CO) will increase to a level not to exceed 224.3 lb/hr and 982.3 tpy as shown on Table 1(a) as submitted by the Company. The existing actual NO_x emissions of 6020.4 tpy are based on Alcoa Sampling Data and actual operation of the emission source as extracted from the 1998 Emissions Inventory submitted to the TNRCC by the Company. The proposed emissions are based on simulated studies conducted on a boiler at the plant site and vendor targets as submitted to the TNRCC for Standard Permit No. 42739.

8. The Company agrees to submit to the Executive Director its registration form PI-1S for a standard permit, as authorized by 30 TAC §116.617, to modify the windbox compartment by installing a separate overfire air in Boiler No. 1 (FIN P17-1/EPN 17A) at the plant. The Company agrees to submit this registration and complete this modification no later than December 31, 2001

and is required to operate Boiler No. 1 in compliance with all requirements of 30 TAC §116.617. Emissions of CO from Boiler No. 1 will increase to a level not to exceed 224.3 lb/hr and 982.3 tpy as shown on Table 1(a) as submitted by the Company for Standard Permit No. 42739. The existing actual NO_x emissions of 6582.7 tpy are based on Alcoa Sampling Data and actual operation of the emission source as extracted from the 1997 Emissions Inventory submitted to the TNRCC by the Company. The proposed emissions are based on simulated studies conducted on a boiler at the plant site and vendor targets as submitted to the TNRCC for Standard Permit No. 42739.

9. The Company agrees to submit to the Executive Director its registration form PI-1S for a standard permit, as authorized by 30 TAC §116.617, to modify the windbox compartment by installing a separate overfire air in Boiler No. 3 (FIN P17-3/EPN 17B) at the plant. The Company agrees to submit this registration and complete this modification no later than December 31, 2002 and is required to operate Boiler No. 3 in compliance with all requirements of 30 TAC §116.617. Emissions of CO will increase to a level not to exceed 224.3 lb/hr and 982.3 tpy as shown on Table 1(a) as submitted by the Company for Standard Permit No. 42739. The existing actual NO_x emissions of 7428.9 tpy are based on Alcoa Sampling Data and actual operation of the emission source as extracted from the 1997 Emissions Inventory submitted to the TNRCC by the Company. The proposed emissions are based on simulated studies conducted on a boiler at the plant site and vendor targets as submitted to the TNRCC for Standard Permit No. 42739.

10. The Company agrees to limit the emissions of NO_x from Boiler No. 2 as required by Standard Permit #42739 when the modification is complete but no later than December 31, 2000. The Company agrees to limit total emissions of NO_x from Boiler Nos. 1 and 2 (EPN 17A) to

10,231.6 tpy and 2,336 lb/hr, with a per Boiler limit of 5,115.8 tpy and 1,168 lb/hr beginning when the modifications described in paragraph 8 above are complete and continuing until the modifications described in paragraph 9 are complete. The Company agrees to limit total emissions of NO_x from Boiler Nos. 1, 2, and 3 (EPNs 17A and 17B) to 13,622.4 tpy and 3,475 lb/hr, with a per Boiler limit of 5,115.8 tpy and 1,168 lb/hr beginning no later than December 31, 2002.

11. The Company may chose to modify Boiler No. 3 according to the timeline set forth in paragraph 8 above and modify Boiler No. 1 according to the timeline set forth in paragraph 9 above. If the Company elects to make this substitution, the Company shall notify the Executive Director within ten working days of such election and shall comply with the emission limits in paragraphs 8 and 9 above. This substitution does not amend or delay the compliance dates of December 31, 2001 for one of these Boilers and December 31, 2002 for the second of these two Boilers for installation and operation of the overfire air control technology.

12. The modification projects described in paragraphs 6, 8 and 9 above will result in a net decrease of actual NO_x emissions and the emissions of sulfur dioxide, particulate matter and volatile organic compounds will not change. CO levels will increase to the levels specified in paragraphs 7 through 9 above but such net emissions increases in CO associated with the modifications of Boiler Nos. 1, 2 and 3 described in paragraphs 6, 8 and 9 above shall not cause or contribute to a violation of (a) the NAAQS, (b) any PSD increment or (c) any PSD visibility limitation.

13. The modifications will not result in an increase in the Company's power production capacity.

14. Sampling and analysis:

(A) The Company shall perform stack sampling and analysis semiannually beginning on or before December 15, 2000, as required to establish the actual pattern and quantities of NO_x and CO being emitted into the atmosphere from Boiler Nos. 1, 2, and 3 (as described in paragraph 4 above). The Company is responsible for providing sampling facilities and conducting the sampling and analysis at its expense. Sampling shall be conducted in accordance with the appropriate procedures of the TNRCC Sampling Procedures Manual and in accordance with the appropriate Environmental Protection Agency (EPA) Reference Methods. Any deviations from those procedures must be approved by the Executive Director of the TNRCC prior to sampling. The Executive Director or his designated representative shall be afforded the opportunity to observe all such sampling.

(B) The Company shall contact the TNRCC Waco Regional Office as soon as sampling is scheduled, but not less than 45 days prior to sampling to schedule a pretest meeting. The purpose of the pretest meeting is to review the necessary sampling and analysis procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports. The notice shall include the date for the pretest meeting, the date sampling will occur, the name of firm conducting sampling, the type of sampling equipment to be used, the method or procedure to be used in sampling and the procedure used to determine loads for the Boilers during and after the sampling period.

(C) A written proposed description of any deviation from sampling procedures specified in TNRCC or EPA sampling procedures shall be made available to the TNRCC prior to the pretest meeting. The TNRCC Regional Director or the TNRCC Enforcement Division, Engineering Services Team Supervisor in Austin shall approve or disapprove of any deviation from specified

sampling procedures. Requests to waive sampling for any pollutant specified in this condition shall be submitted to the Executive Director.

(D) Primary operating parameters that enable determination of boiler operating conditions shall be monitored and recorded during the sampling. Future operation of the boilers may be limited to the operation during the sampling, but no more restrictive than the emission limits in paragraphs 7, 8, 9 and 10 above.

(E) A copy of the final sampling report shall be forwarded to the TNRCC Waco Regional Office within 60 days after sampling is completed.

15. The Company will maintain records for a period of two years after the final deadline for installation of control technology and reduction in NO_x emissions as required by this Order sufficient to demonstrate compliance with paragraphs 6 through 11 above. Records of each sampling event shall be maintained for two years after the date of the test for Boiler Nos. 1, 2 and 3, together with a copy of this agreed order and all registrations and associated documents for the standard permits referenced in this Order. All of these records shall be kept at the plant site and made available at the request of personnel from the TNRCC or any other air pollution control agency with jurisdiction.

16. This Order does not authorize or prohibit any modification of the plant listed above, nor does it authorize or prohibit the construction of any abatement equipment that may be necessary to achieve the maximum allowable emissions limits set in paragraphs 7 through 10 above. The Company is ordered to submit the appropriate application or registration documentation to the

TNRCC's Office of Permitting for any authorization necessary to implement the requirements of this Order.

17. In order to better safeguard the air resources of this state, the Company agrees to comply with the terms of this Order.

18. In lieu of the Company's completion of one or more of the control technologies described in paragraphs 6, 8 and 9 above, Company may propose one or more alternative control technologies to the required technology described in paragraphs 6, 8 and 9 above, provided the emissions reductions or the effect on the environment from such alternative technologies are at least equivalent to those in paragraphs 6, 8 and 9 that will be replaced. If the Company elects to propose an alternative control technology, it will submit to the Executive Director all information reasonably necessary for the commission to evaluate and approve the alternative technology. TNRCC will not unreasonably withhold such approval. Until TNRCC approves an alternative technology or otherwise grants permission to the Company to cease performance of a control technology required under this Order, Company shall remain obligated to install and operate the original control technology that the alternative technology would otherwise replace.

19. The Commission and the Company agree that the Commission has jurisdiction to enter this Agreed Order, and the Company is subject to the Commission's jurisdiction. 20.

The Commission and the Company acknowledge that the Company has entered into this Order voluntarily. Nothing in this Order shall be interpreted as evidence that the Company is causing or contributing to a violation of the NAAQS or is in any respect non-compliant with any federal, state

or local law. Additionally, this Order shall not constitute a “compliance event” as defined in 30 TAC § 116.11 or any similar designation under federal, state or local law.

21. Nothing in this Order shall preclude the Company from including the reduction in NO_x emissions of 5,838.2 tpy from the installation of a separate overfire air (or other approved control technology as described in paragraph 18 above) in Boiler Nos. 1, 2 and 3 at the plant in the company’s application for any voluntary emissions reduction permit (VERP), as authorized by 30 TAC Chapter 116, Subchapter H.

II. ORDER

It is therefore ordered by the Texas Natural Resource Conservation Commission that Alcoa Inc. shall, from and after the date of this Agreed Order, limit its emissions of NO_x as specified in paragraphs 7 through 11 above, and maintain compliance with paragraphs 7 through 17 above.

The provisions of this Agreed Order shall apply to and be binding upon Alcoa Inc., its successors, assigns and upon those persons in active concert or participation with them who receive actual notice of this Agreed Order by personal service or otherwise. Alcoa Inc. is hereby ordered to give notice of this Agreed Order to any successor in interest prior to transfer of ownership of all or any part of its plant, located near Rockdale, Milam County, Texas and within ten days of any such transfer, provide the Texas Natural Resource Conservation Commission with written certification that such notice has been given.

The Chief Clerk shall provide a copy of this Order to each of the parties.

I am authorized to agree to the attached Agreed Order on behalf of the entity indicated below my signature, and do hereby agree to the terms and conditions specified therein.

Jim Phillips
Deputy Director, Office of Legal Services
Texas Natural Resource Conservation Commission

Date

Authorized representative of
Alcoa Inc.

Date