STATEMENT OF CONSIDERATIONS

REQUEST BY ALUMINUM COMPANY OF AMERICA (ALCOA) (THE PARTICIPANT) FOR ADVANCE WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS IN INVENTIONS OF THE PARTICIPANT UNDER DOE-PETC CRADA NO.PC-93-007, W(A)-94-004, CH-0828 - REGENERATIVE ADSORBENTS FOR SO2/Nox

The Department of Energy has delegated authority to the PETC Laboratory Director to enter into CRADAs and, with the concurrence of cognizant Intellectual Property Counsel, to deal with intellectual property matters arising under the CRADA, including waiving of the Government's patent rights thereunder.

The proposed CRADA is to develop improved copper oxide sorbent for removing S02/N0x from flue gases. ALCOA will fabricate sorbents, first according to PETC specifications and subsequently by ALCOA methods and perform physical and chemical analyses on sorbent samples. PETC will evaluate the sorbents and conduct Process Development Unit tests as appropriate and as agreed to by the parties. ALCOA will bear its own administrative cost and the cost of sorbent preparation and analyses. PETC will contribute use of its Moving-Bed Life-Cycle Test facilities and provide federal staff for project management, testing and reporting. The total cost (excluding facilities use) is estimate to be \$98,430 with the Participant contributing 49% of the cost.

Participant desires to obtain an advance waiver of the Government's rights in any inventions that may be conceived or first actually reduced to practice by Participant's employees and has petitioned therefor. Participant has agreed to standard terms and conditions for such an advance patent waiver including royalty-free license for Governmental purposes, march-in-rights, and U.S. Competitiveness provisions of this CRADA.

In view of Participant's contributions to this CRADA, including personnel, sorbent materials and use of equipment, valued in excess of twenty percent of the overall value of this CRADA and Participant's investment in related background research which evidence a commitment to attempt to commercialize the results of this CRADA, it is believed that a grant of advance waiver is in the public interest.

Based on the foregoing and representations in the attached Petition for Advance Waiver of Patent Rights and in view of the objectives and considerations set forth in DOE PR 9-9.109-6, all of which have been considered, it is determined that the United States and the general public will best be served by a waiver of rights of the scope described above and therefor the waiver is granted. This waiver shall not apply to any modification or extension of the agreement where, through such modification or extension, the purpose, scope, or cost of the CRADA is substantially altered.

CONCURRENCE:

Hugh W. Glenn Assistant Chief Counsel IPLD-CH 5 //0 /94 APPROVAL:

Sun W. Chun, Director Pittsburgh Energy Technology Center

Date 5/19/94

ARTICLE XXII. U.S. COMPETITIVENESS

The Parties agree that a purpose of this CRADA is to provide substantial benefit to the U.S. economy.

In exchange for the benefits received under this CRADA, the Parties therefore agree to the following:

- A. Products embodying Intellectual Property developed under this CRADA shall be substantially manufactured in the United States; and
- B. Processes, services and improvements thereof which are covered by Intellectual Property developed under this CRADA shall be incorporated into the Participant's manufacturing facilities in the United States, either prior to or simultaneously with implementation outside the United States. Such processes, services and improvements, when implemented outside the U.S., shall not result in reduction of the use of the same processes, services or improvements in the United States, unless detrimental to Participant.

ARTICLE XXIII. ASSIGNMENT OF PERSONNEL

- A. It is contemplated that each Party may assign personnel to the other Party's facility as part of this CRADA. Such personnel assigned by the assigning Party, to participate in or observe the research to be performed under this CRADA shall not during the period of such assignments be considered employees of the receiving Party for any purpose.
- B. The receiving Party shall have the right to exercise routine administrative and technical supervisory control of the occupational activities of such personnel during the assignment period and shall have the right to approve the assignment of such personnel and/or to later request their removal by the assigning Party.
- C. The assigning Party shall bear any and all costs and expenses with regard to its personnel assigned to the receiving Party's facilities under this CRADA. The receiving Party shall bear facility costs of such assignments.

ARTICLE XXIV. FORCE MAJEURE

No failure or omission by DOE or the Participant in the performance of any obligation under this CRADA shall be deemed a breach of this CRADA or create any liability if the same shall arise from any cause or causes beyond the control of DOE or the Participant, including but not limited to the following, which, for the purpose of this CRADA, shall

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