STATEMENT OF CONSIDERATIONS

PETITION FOR ADVANCE WAIVER OF PATENT RIGHTS BY ALCOA INC. ("ALCOA") UNDER COOPERATIVE AGREEMENT NO. DE-FC36-08GO18028 BETWEEN ALCOA AND DOE; W(A)-08-027; CH-1440

The Petitioner, ALCOA, has requested a waiver of domestic and certain foreign patent rights for all subject inventions that may be conceived or first actually reduced to practice by ALCOA arising from its participation under the above referenced cooperative agreement entitled "Reflector Technology Development and System Design for Concentrating Solar Power (CSP) Technologies."

The objective of the project is development of low-cost solar trough reflector system components and the establishment of a U.S.-based manufacturing capability for these components. ALCOA has proposed to develop an aluminum-intensive solar collector that will provide superior total life cycle cost of energy compared to current baseline collectors using incumbent silvered glass mirror designs. ALCOA research under the project will focus on the design an optimization of the supporting structure, coupled with state-of-the-art reflector surface coating technology. The project has three phases. The objective of Phase I is to provide DOE with a system design approach to demonstrate significant overall cost savings using aluminum based solar trough systems without sacrificing performance. Phase II will focus on conceptualizing and developing a prototype to validate the technology. Phase III will be a limited build and field level validation of the technology.

The total cost of the project is approximately \$3.6 million with the Petitioner providing about 20% cost sharing for Phases I and II and about 50% for Phase III. This waiver is contingent upon the Petitioner maintaining, in aggregate, the above cost sharing percentages over the course of the cooperative agreement.

As noted in its waiver petition, Petitioner is a pioneer and leader in the aluminum industry and is a worldwide supplier of aluminum products. ALCOA has more than 100 years of experience in aluminum smelting, processing and fabrication and has a long standing commitment to research and development of new technologies. ALCOA invests over \$20 million annually in Research and Development related to new products and maintains a worldwide intellectual property portfolio related to aluminum technology. A substantial portion of the ALCOA's research expenditures in 2007 were in the area of solar-thermal related technology.

Considering Petitioner's technical expertise and significant investment in this technology including sizable cost sharing in this cooperative agreement, it is reasonable to conclude that Petitioner will continue to develop and ultimately commercialize the technology and products which may arise from this cooperative agreement.

Petitioner has agreed that this waiver shall be subject to the march-in and preference for U.S. industry provisions, as well as the U.S. Government license, comparable to those set out in 35 U.S.C. 202-204. Further, Petitioner has agreed to the attached U.S. Competitiveness provision paragraph (t). In brief, Petitioner has agreed

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that products embodying a waived invention or produced through the use of a waived invention will be manufactured substantially in the United Sates unless the Petitioner can show to the satisfaction of the DOE that is not commercially feasible to do so.

Referring to item 10 of the waiver petition, granting this waiver is not anticipated to have any adverse impact on competition. If anything, the technology forming the subject matter of the collaboration can be expected to stimulate competition. ACLOA has an extensive history of partnership and licensing arrangements with companies in various commercial markets. Furthermore, the development of aluminum based solar reflectors will increase competition in the solar reflector market which is currently dominated by mirrored-glass products.

Considering the foregoing, it is believed that granting this waiver will provide Petitioner with the necessary incentive to invest its resources in the commercialization of the results of the cooperative agreement in a fashion which will make the above technology available to the public in the shortest practicable time. Therefore, upon evaluation of the waiver petition and in view of the objectives and considerations set forth in 10 CFR 784, all of which have been considered, it is recommended that the requested waiver be granted.

Brian J. Lally

Assistant Chief Counsel Intellectual Property Law Division DOE Chicago Office

Date: July 15, 2008

Based upon the foregoing Statement of Considerations and representations in the attached waiver petition, it is determined that the interests of the United States and the general public will best be served by a waiver of patent rights of the scope described above, and therefore the waiver is granted. This waiver shall not apply to any modification or extension of the cooperative agreement, where through such modification or extension, the purpose, scope or cost of the cooperative agreement has been substantially altered.

CONCURRENCE:

Thomas P. Kimbis Program Manager, Achi-Office of the Solar Energy Technology EE-2A

Date: <u>20 July 08</u>

APPROVAL:

Paul A. Gottlieb Assistant General Counsel for Technology Transfer and Intellectual Property

Date: 8-05-00

WAIVER ACTION - ABSTRACT W(A)-08-027

REQUESTOR ALCOA

CONTRACT SCOPE

The objective of the project is development of low-cost solar trough reflector system components and the establishment of a U.S.-based manufacturing capability for these components.

RATIONALE FOR DECISION > 20% Cost Sharing

(t) U.S. Competitiveness

The Contractor agrees that any products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States unless the Contractor can show to the satisfaction of the DOE that it is not commercially feasible to do so. In the event the DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., recoupment of the Government's investment, etc. The Contractor agrees that it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements. Should the Contractor or other such entity receiving rights in the invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license, or other transfer of rights in the waived invention is suspended until approved in writing by the DOE.

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