STATEMENT OF CONSIDERATIONS

REQUEST BY SIEMENS SOLAR INDUSTRIES FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS UNDER DOE COOPERATIVE AGREEMENT NO. DE-FG48-97R8810617; W(A)-97-034; CH-0937

The Petitioner, Siemens Solar Industries, has requested a waiver of domestic and foreign patent rights for all subject inventions arising from its participation under the above referenced cooperative agreement entitled "Commercialization of CIS Thin Film Photovoltaics."

This cooperative agreement is to assist the Petitioner in commercializing its proprietary copper indium diselenide (CIS) thin film photovoltaic technology. The thin film technology promises better than average efficiency and lower-cost manufacturing. This is a two year program designed to purchase equipment for pilot production of CIS modules, and for Petitioner to demonstrate, on a pilot scale, process capabilities and cost of manufacturing. The objectives of the project are to accelerate product development, demonstrate product performance and reliability, determine process yield and material utilization, and begin cycles of learning to reduce production costs.

The total estimated cost of the cooperative agreement is \$3.4 million. The project will be cost shared with DOE, with Petitioner providing 50% of the costs. The continuation of the waiver is contingent upon the Petitioner maintaining the above cost sharing percentages during the course of the agreement.

As noted in its waiver petition, Petitioner has been a leading supplier of photovoltaic modules and systems since 1975. Petitioner has directed considerable research and development efforts to advance the core commercial technology for single crystal silicon and to develop lower-cost thin film modules based on CIS. Currently, Petitioner is engaged in active research and development programs to develop CIS module technology and has delivered high efficiency test modules to NREL for testing. Petitioner estimates that it has spent over \$50 million to develop various CIS based technology and feels that it has the infrastructure, equipment and know-how to develop and commercialize viable CIS photovoltaic products. Considering Petitioner's technical expertise, established market position, 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 Further, Petitioner has agreed to the U.S. U.S.C. 202-204. competitiveness provisions as attached to this Statement. In brief, Petitioner has agreed that products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States unless Petitioner can show to the satisfaction of the DOE that it is not commercially feasible to do so, and that Petitioner will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements. Additionally, Petitioner has agreed to contractor data licensing provisions as attached herein.

Referring to item 10 of the waiver petition, granting this waiver is not anticipated to have any adverse impact on competition. There are currently numerous designs, as well as competitors, in the field of photovoltaics including thin film photovoltaic modules. The success of this cooperative agreement can be expected to stimulate further investment and competition in this technology.

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 Part 784, all of which have been considered, it is recommended that the requested waiver be granted.



Thomas G. Anderson Assistant Chief Counsel Intellectual Property Law Division

Date:



Daniel D. Park Patent Attorney Intellectual Property Law Division

Date: 4/6/98

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 W. Sacco

Acting Director, Office of Energy Outreach EE-14

Date: 4/27

APPROVAL :

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

APR 2 9 1998 Date:

WAIVER ACTION - ABSTRACT W(A)-97-034

•

.

e

| REQUESTOR | CONTRACT SCOPE OF WORK | RATIONALE FOR DECISION | DISPOSITION |
|-----------------------------|--|------------------------|-------------|
| Siemens Solar Industries | Commercialization of CIS Thin Film Photovoltaics | 50% cost sharing | |

(c)(3)(ix) U.S. Competitiveness

. 4

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 that 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.