## STATEMENT OF CONSIDERATIONS

REQUEST BY EMCORE CORPORATION FOR AN ADVANCE WAIVER OF PATENT RIGHTS UNDER SUBCONTRACT NO. NREL-NAT-02-30620-03 ENTITLED "THREE-JUNCTION SOLAR CELL FOR HIGH CONCENTRATION APPLICATIONS" UNDER DOE PRIME CONTRACT NO. DE-FC36-83CH10093; W(A)-02-043; CH-1119

As set out in the attached waiver petition, and in subsequent discussions with DOE Patent Counsel, EMCORE Corporation (EMCORE) has requested an advance waiver of domestic and foreign patent rights for all subject inventions made under the above-identified subcontract by its employees and its subcontractors' employees, regardless of tier, except for inventions made by subcontractors eligible to retain title to inventions pursuant to P.L. 96-517, as amended, and National Laboratories.

Referring to item 2 of EMCORE's petition, the purpose of this subcontract is to develop a high performance terrestrial concentrator solar cell. EMCORE has a substantial background in the development and manufacturing of solar cells for space applications. Under this subcontract EMCORE expects to leverage its space solar cell technologies to develop the terrestorial solar cell technologies.

The work under this subcontract is expected to take place over a period of two years at a total cost of \$1.2 million. EMCORE is obligated to cost share \$250,000, or slightly more than 20 percent of the total cost of the subcontract.

In view of the cost sharing and other equities between EMCORE and its subcontractors, it is anticipated that the parties will develop an appropriate allocation of patent rights among the participants to facilitate the expeditious development of the technology forming the subject matter of the agreement. Accordingly, DOE will waive title to all subject inventions made by EMCORE employees and its subcontractors' employees, regardless of tier, except inventions made by subcontractors eligible to retain title pursuant to P.L. 96-517, as amended, or National Laboratories, to EMCORE or its subcontractors, as mutually agreed by the parties. Except as otherwise approved in writing by DOE Patent Counsel, a party's acceptance of a subcontract under this agreement, at any tier, shall constitute EMCORE's certification that it has provided that party with a copy of this Statement of Considerations and that party's notice to DOE that it accepts the terms and conditions of this advance waiver. Additionally, subcontractors obtaining title pursuant to this waiver shall give DOE Patent Counsel written notice of such disposition at the time of the award of their respective subcontracts.

Referring to items 5-9 of EMCORE's petition, EMCORE has been manufacturing photovoltaic devises for space applications since 1998. It expects to commercialize the terrestrial solar cell technologies resulting from this subcontract by forming joint ventures with manufacturers of terrestrial concentrator systems. Under those arrangements, EMCORE will manufacture the solar cell devices, and its partners will package the devices into complete systems. This, coupled with EMCORE's cost sharing, clearly demonstrates the likelihood that EMCORE will continue development and commercialization of the results of this contract.

This advance waiver of the Government's rights in inventions is subject to the usual advance patent waiver and background data licensing provisions, and the government license, march-in rights, and preference for U.S. industry provisions set out in 35 U.S.C. 202-204. The

advance patent waiver also includes the attached U.S. Competitiveness clause (paragraph t) which requires products embodying any waived invention or produced through the use of any waived invention be manufactured substantially in the United States unless the participant can show to the satisfaction of DOE that it is not commercially feasible to do so. The contractor further agrees to make the above condition binding on any assignee, licensee or other entity acquiring rights to any waived invention, including subsequent assignees or licensees. Should the Contractor or other such entity receiving rights in any waived 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 DOE.

Referring to item 10 of the waiver petition, granting this waiver is not anticipated to have any adverse impact on competition. Rather, the technology forming the subject matter of this agreement can be expected to improve U.S. competitiveness relative to off-shore competition.

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 agreement in a fashion which will make the 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 fourth in 10 CFR 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 ( - ') - - - - - -

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 will not apply to any modification or extension of the contract, where through such modification or extension, the purpose, scope or cost of the contract has been substantially altered.

CONCURRENCE:	APPROVAL:
Raymond Sutula	Paul Â. Gottlieb
Program Manager	Assistant General Counsel for Technology
Solar, EE-2A	Transfer and Intellectual Property, GC-62
Date: 1/31/03	Date: $2-5-0$

## (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.

## WAIVER ACTION - ABSTRACT W(A)-02-043 (CH-1119)

REQUESTOR CONTRACT SCOPE OF WORK RATIONALE FOR DECISION DISPOSITION

EMCORE Corporation Three-Junction Solar Cell for High 20% cost sharing Concentration Applications