

STATEMENT OF CONSIDERATIONS

REQUEST BY CREE, INC FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN INVENTION RIGHTS UNDER DOE COOPERATIVE AGREEMENT NO. DE-FC26-03NT41943; W(A)-03-051, CH-1170

The Petitioner, Cree, Inc., (Cree) was awarded this cooperative agreement for the performance of work entitled, "High Efficiency LED Lamp for Solid State Lighting." The purpose of the cooperative agreement is to develop the technology, fabrication processes, and prototypes to demonstrate solid-state lamps based on GaN semiconductor LEDs that are viable replacements for energy inefficient incandescent lighting solutions. The ultimate goal of the program is to deliver to the Department of Energy solid-state lamp prototypes that produce 1000 lm of white flux at an efficacy of 100lm/w, with the potential of improvement to 150 lm/W beyond the time frame of the program.

The total estimated cost of the cooperative agreement is \$1,892,778, with the DOE share being \$1,419,584, or 75%, while the remaining cost share of 25%, or \$473,194, will be provided by Cree. The period of performance is from October 1, 2003 through December 31, 2008.

In its response to question 4 of the attached waiver petition, Cree has described its technical competence in the field of electronic devices made from silicon carbide (SiC) and gallium nitride (GaN). Cree produces compound semiconductor based LEDs for use in automotive and liquid crystal display (LCD) backlighting; indicator lamps; full color LED displays and other lighting applications. Its Santa Barbara Technology Center recently demonstrated a record 35% quantum efficiency at 20mA for blue LEDs based on its XBright® chip technology. White LEDs fabricated using these chips produced 4.1 lumens of light in industry standard LED packages with an electrical energy conversion efficiency of 65 lumens per watt at 20mA, the highest known efficiencies publicly reported for LEDs emitting in the blue and white wavelength spectrum. Cree has also recently introduced new blue light emitting diodes, and owns or exclusively licenses 47 U.S. Patents that relate specifically to the manufacture of optoelectronic devices. Cree's response demonstrates its technical competency in the field of electronic devices made from silicon carbide (SiC) and gallium nitride (GaN).

In its response to question 9 of the attached waiver petition, Cree states that there are several companies in the field of semiconductor lamp technology. Cree competes directly with companies like Lumileds, a spinoff from Agilnet. Other technology companies in the semiconductor lamp industry are Kopin and Oriol. Cree's ability to establish an extensive intellectual property portfolio will be critical to maintaining a position in the market place and to enhance its ability to compete, both domestically and internationally. It therefore appears that grant of the waiver will have a positive effect on competition and market concentration.

The subject cooperative agreement will be modified to add the Patent Rights--Waiver clause in conformance with 10 CFR 784.12, wherein Cree has agreed to the provisions of 35 U.S.C §§ 202, 203, and 204. This waiver clause will also include a paragraph entitled U.S. Competitiveness, in which Cree agrees to substantial U. S. manufacture of subject inventions (attached hereto). Additionally, Cree agrees not to transfer subject inventions to any other entity unless that other entity agrees to these same requirements. The petitioner has further agreed to modification of the data clause of the subject cooperative agreement (48 C.F.R. 952.227-14) by adding paragraph (k), Alternative VI, concerning contractor licensing of data.

Considering the foregoing, it is believed that granting the waiver will provide the Petitioner with the necessary incentive to invest resources in the commercialization of the results of the agreement in a fashion which will make the agreement's benefits available to the public in the shortest practicable time. In addition, it would appear that grant of the above requested waiver would not result in an adverse effect on competition nor result in excessive market concentration. Therefore, 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, as set forth above, be granted.

[Redacted]

Mark P. Dvorscak
Assistant Chief Counsel
Intellectual Property Law Division

Date: Dec. 31, 2003

Based on the foregoing Statement of Considerations and the representations in the attached waiver petition, 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 therefore the waiver is granted. This waiver shall not apply to any modification or extension of this agreement, where through such modification or extension, the purpose, scope, or cost of the agreement is substantially altered.

CONCURRENCE:

[Redacted]

Michael J. McCabe
Program Manager
Building Technologies Program
Energy Efficiency and Renewable Energy

Date: February 17, 2004

APPROVAL:

[Redacted]

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

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(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.