STATEMENT OF CONSIDERATIONS

REQUEST BY CREE, INC FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN INVENTION RIGHTS UNDER DOE COOPERATIVE AGREEMENT NO. DE-FC26-05NT42340; W(A)-04-077, CH-1256

The Petitioner, Cree, Inc., (Cree) was awarded this cooperative agreement for the performance of work entitled, "Small-Area Array-Based LED Luminaire Design." The purpose of the cooperative agreement is to develop GaN-based LED arrays. Specifically, the work will target critical areas of LED based lighting technology such as thermal management, light extraction, optical efficiency, and electrical power handling that currently limit the performance of solid-state luminaires. The scope of work will encompass individual small-area chip shaping and contact design to improve LED efficiency and facilitate incorporation into arrays with associated electrical power handling and down conversion technologies to achieve target efficacy at the desired color point.

The total estimated cost of the cooperative agreement is $2,262,814, with the DOE share being $1,651,867, or 73%, while the remaining cost share of 27%, or $610,947, will be provided by Cree. The period of performance is from January 10, 2005 through January 9, 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 50% quantum efficiency at 20mA for blue LEDs based on its XBright® chip technology. White LEDs fabricated using these chips produced 5 lumens of light in industry standard LED packages with an electrical energy conversion efficiency of 80 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 over 50 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. 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. Therefore, it 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.

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: May 23, 2005

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 McCabe
Office of the Building Technologies
Program, Energy Efficiency and
Renewable Energy, EE-2J

Date: 5/6/06

APPROVAL:

[redacted]

Paul A. Gottlieb
Assistant General Counsel
for Technology Transfer and
Intellectual Property, GC-62

Date: 5-20-06

(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)-04-077 (CH-1256)

REQUESTOR	CONTRACT SCOPE OF WORK	RATIONALE FOR DECISION	DISPOSITION
Cree, Inc. Under DOE Cooperative Agreement No. DE-FC26-05NT42340	Small-Area Array-Based LED Luminaire Design	27% cost sharing	