## STATEMENT OF CONSIDERATIONS

PETITION FOR ADVANCE WAIVER OF PATENT RIGHTS BY EASTMAN KODAK COMPANY ("KODAK") UNDER COOPERATIVE AGREEMENT NO. DE-FC26-06NT42864 BETWEEN KODAK AND DOE; W(A)-06-027; CH-1384

The Petitioner, KODAK, 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 KODAK arising from its participation under the above referenced cooperative agreement entitled "Quantum Dot Light Emitting Diodes."

The objective of the Quantum Dot Light Emitting Diodes project is to develop low cost inorganic light emitting diodes composed of quantum dot emitters and inorganic nanoparticles, which have the potential for efficiencies equivalent to that of LEDs and OLEDs and lifetime brightness and environmental stability between that of LEDs and OLEDs. This work is funded under a Core Technology Program of DOE's Solid State Lighting Program (SSL).

The Core Technology Program includes scientific efforts that seek to gain more comprehensive knowledge or understanding of the subject under study, with possible multiple applications or fields of use in mind. Within Core Technology research areas, scientific principles are demonstrated, and the knowledge is shown to offer price or performance advantages over previously available science/engineering. Laboratory testing and/or math modeling may be conducted to gain new knowledge, and provide the options (technical pathways) to a SSL application. Activities could include theory, fabrication, and measurement of a material to provide the detailed understanding (properties and relationships) that solve one or more of the technical challenges of the DOE SSL program. Tasks in Core Technology are truly innovative and groundbreaking, fill technology gaps, provide enabling knowledge or data, and represent a significant advancement in the SSL knowledge base. These tasks focus on gaining precompetitive knowledge for future application to products, for use by other organizations. The desired outcome is pioneering work that would be available to the community at large, to use and benefit from as they work collectively towards attainment of the DOE's efficacy goals. The Core Technology Program participants perform work subject to the exceptional circumstance made for the SSL program: this patent waiver requires Petitioner to offer to each of the SSL Industrial Teams the option to enter into a nonexclusive license for subject inventions developed under the Core Program, upon terms that are reasonable under the circumstances, including royalties.

The total cost of the project with KODAK is approximately \$1.94 million with the Petitioner providing about forty percent (40%) cost sharing. This waiver is contingent upon the Petitioner maintaining, in aggregate, the above cost sharing percentage over the course of the cooperative agreement.

As noted in its waiver petition, Petitioner is a pioneer and worldwide leader in designing novel lighting technologies. KODAK has over 250 U.S. Patents relating to

light emitting devices and a similar number of pending U.S. applications. KODAK currently spends over \$5,000,000 a year in R&D costs relating to organic light emitting diodes and nanoparticle-based materials.

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 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.

As mentioned above, the waiver clause will contain language requiring Petitioner to offer to each of the Next Generation Lighting Industry Alliance (NGLIA) Teams the option to enter into a non-exclusive license for subject inventions developed under the Core Program, upon terms that are reasonable under the circumstances, including royalties.

The field of use of the license could be limited to solid state lighting applications, although greater rights could be offered at the discretion of Petitioner. The offer must be held open for at least one year after the U.S. Patent issues and Petitioner must agree to negotiate in good faith with any and all Industrial Teams or Team members that indicate a desire to obtain at least a non-exclusive license. Exclusive licensing may be considered if only one Industrial Team or Team member expresses an interest in licensing the invention. Partially exclusive licenses in a defined field of use may be granted to an Industrial Team, as long as doing so would not preclude any other Industrial Team that indicates a desire to license the invention from being granted at least a non-exclusive license. However, the Government will not require Petitioner to grant any exclusive or partially exclusive licenses. Petitioner must enter into good faith negotiations with the individual industrial team or team member. In the event the parties to the negotiation cannot reach agreement on the terms of the license, as set forth above, within nine months of initiating good faith negotiations, the Industrial Team Members shall have the right of a third party beneficiary to maintain an action in a court of competent jurisdiction to force licensing on reasonable terms and conditions. In addition, any entity having the right to use or sell any subject invention in the United States and/or any other country, including the Petitioner, must agree that any products embodying the subject invention or produced through the use of the subject invention will be substantially manufactured in the U.S. Any assignment of the invention must be made subject to these requirements.

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. KODAK has an extensive history of partnership and licensing arrangements with companies in various commercial markets including those relating to OLEDs. Furthermore, KODAK has indicated that it will offer all members of the NGLIA the first option to enter into non-exclusive licenses for solid state lighting applications using subject inventions arising under the cooperative agreement.

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 🌔 Satent Attorney Intellectual Property Law Division



Deputy Chief Counsel Intellectual Property Law Division

Date: 1/16/2007



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:

Steven G. Chalk Program Manager Building Office Technologies Office of Energy Efficiency and Renewable Energy

Date: 2 122107

## APPROVAL:

Paul A. Gottlieb

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

Date: <u>7 - 2 7 -</u> 26 -

## (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.



## CONTRACT SCOPE

REQUESTOR

Eastman Kodak Development of low cost inorganic light company emitting diodes composed of quantum dot emitters and inorganic nanoparticles.

**RATIONALE FOR DECISION** 40% Cost Sharing