STATEMENT OF CONSIDERATIONS

REQUEST BY PPG INDUSTRIES FOR AN ADVANCE WAIVER OF PATENT RIGHTS TO INVENTIONS MADE UNDER COOPERATIVE AGREEMENT DE-EE0001332; W(A)-10-05; CH-1544

PPG Industries requests an advance waiver of domestic and foreign patent rights for all subject inventions made under the referenced cooperative agreement. The purpose of the cooperative agreement is to research proof-of-concept into the design and fabrication of a glazing system that combines power generation and dynamic control of illumination into a single unit. Modeling and measurements of the light balance within the units will be performed to understand the operational behavior of each subcomponent of the system and to evaluate the operation of such a unit in a building. Laboratory work will be done to develop the device structure, materials, and packaging for the PV subcomponent of the system. The methods and materials for fabrication of the illumination subcomponent will be investigated with a goal of identifying an approach having transmission in the "off" state and diffusive reflection in the "on" state. Small "proof-of-concept" prototypes using the technologies developed in this work will be fabricated to demonstrate the feasibility of this approach. This waiver is for inventions of PPG employees only.

The work under this agreement is expected to take place between October 1, 2009 and March 31, 2011. The total amount of the award is \$1,486,719. PPG is cost-sharing \$195,728 (13%), its subcontractor RavenBrick LLC is providing a 7% cost-share or \$101,616 for a total 20% non-DOE cost share. DOE is providing the remaining 80% (\$1,189,375). PPG has supplied a letter indicating RavenBrick's consent to have its cost share attributed to PPG for waiver purposes. RavenBrick is a small business eligible to elect title to its inventions under the Bayh-Dole Act pursuant to P.L. 96-517, as amended.

With respect to its technical competency in the field of films and coatings, PPG states that it has a proven record in design, development, commercialization, and mass production of large-area silver-based MSVD (magnetron sputtering vacuum deposition) films for low-emissivity coatings on glass used in architectural applications. It has nearly 30 years of experience in depositing functional coatings with both chemical vapor deposition and MSVD technologies. PPG states it holds many patent in the areas of glass, glass manufacturing and coatings for glass, and has listed a representative sample in response to question 5. PPG has demonstrated its technical competency in the field of films and coatings for architectural glass.

PPG states that any anti-competitive effects of this waiver will be reduced by competitive technologies. PPG states it may be able to improve the marketplace economics and spur the development of similar and competing technologies. It has made new technologies available to the marketplace through licensing, partnering, vertical integration, and working with suppliers, customers and competitors. Thus grant of the waiver will not place PPG in a dominant position and should have a positive effect on competition and market concentration.

This advance waiver of the Government's rights in inventions is subject to the usual advance patent waiver 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.

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 forth in 10 CFR Part 784, all of which have been considered, it is recommended that the requested waiver be granted.

> Mark P. Dvorscak Deputy Chief Counsel Intellectual Property Law Division

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 cooperative agreement, where through such modification or extension, the purpose, scope or cost of the cooperative agreement has been substantially altered.

CONCURRENCE:

P. Marc La-rance

Building Technologies Program

Office of Energy Efficiency and Renewable Energy

FE-221

APPROVAL:

Assistant General Counsel for Technology

Transfer and Intellectual Property.

(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.