

STATEMENT OF CONSIDERATIONS

REQUEST BY THE BOEING COMPANY (BOEING) FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS UNDER DOE AWARD NO. DE-FG36-08GO18055; W(A)2010-018

The Petitioner, BOEING, has requested a waiver of domestic and foreign patent rights for all subject inventions arising from its participation under the above referenced grant entitled "Development of Advanced Manufacturing Technologies for Low Cost Hydrogen Storage Vessels." The prime awardee for this grant is Quantum Technologies. BOEING is a sub-contractor of Quantum Technologies. This waiver shall apply only to BOEING.

The grant is focused on developing new methods for manufacturing pressure vessels for hydrogen storage with the objective of lowering the overall cost of the product primarily by lowering materials costs and by improving production cycle times. The specific objective is to develop and demonstrate an innovative hybrid process which integrates the most optimal features of precision fiber placement and commercial filament winding, with some adaptations of high-speed "dry winding" methodology.

The total anticipated cost of the agreement is \$5,486,848. Quantum Technologies and its partners, including BOEING are providing cost share of 35%, totaling \$1,920,397. The total cost of the sub-contract between Quantum Technologies and BOEING is \$2,059,917, including BOEING's cost share commitment of 43%, totaling approximately \$900,000, provided by BOEING. This waiver is contingent upon BOEING maintaining the above cost share percentage with respect to its subcontract with Quantum Technologies.

As indicated in more detail in its petition, BOEING is a world leader in composite materials and fiber placement, including implementing high-speed automatic fiber placement machines capable of very large scale productions. A highly visible and well known example of this leadership and expertise is BOEING's 787 program. BOEING has nearly 1,000 patents directed to composite and related technologies, has published thousands of technical papers related to one or more aspects of composite technology, employs hundreds of individuals that are highly skilled, knowledgeable, and recognized in the industry as composite material and fiber placement experts, and has invested over \$100 million in developing and implementing fiber placement technology.

BOEING 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, BOEING has agreed to the U.S. competitiveness provisions as attached to this Statement. In brief, BOEING has agreed that products embodying intellectual property developed under this agreement shall be substantially manufactured in the United States, and that BOEING will not license, assign, or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements.

Referring to item 10 of the waiver petition, granting this waiver is not anticipated to have any adverse impact on competition. According to the petition, other competitors have and do

apply competing technologies in this field that include filament winding, tow placement, and braiding capabilities. The granting of this waiver should not impact the other competitors' ability to continue their efforts.

Considering the foregoing, it is believed that granting this waiver will provide BOEING with the necessary incentive to invest its resources in commercializing the results of the agreement in a manner that will make the above technology available to the public in the shortest 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.

[Redacted Signature]

Glen R. Drysdale
Patent Attorney
Golden Field Office

Date: _____

[Redacted 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 determined above, and therefore the waiver is granted. This waiver shall not apply to any modification or extension of the agreement, where through such modification or extension, the purpose, scope, or cost of the agreement has been substantially altered.

CONCURRENCE:



Richard W. Farmer
Acting Program Manager
Fuel Cell Technologies Program
EE-2H

Date: 

APPROVAL:



John T. Lucas
Acting Assistant General Counsel for
Technology Transfer and Intellectual
Property

Date: 

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 DOE that it is not commercially feasible to do so. In the event 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 further agrees to make the above condition binding on any assignee or licensee or any entity otherwise 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 any waived invention is suspended until approved in writing by DOE.