

STATEMENT OF CONSIDERATIONS

REQUEST BY THE BOC GROUP, INC. FOR AN ADVANCE WAIVER OF
PATENT RIGHTS UNDER DOE COOPERATIVE AGREEMENT NO. DE-FG36-
05GO15017 ENTITLED "INTEGRATED HYDROGEN PRODUCTION,
PURIFICATION AND COMPRESSION SYSTEM"; W(A)-05-30; CH-1299

As set out in the attached waiver petition and in subsequent discussions with DOE Patent Counsel, The BOC Group, Inc. (BOC) has requested an advance waiver of domestic and foreign patent rights for all subject inventions made under the above-identified subcontract by its employees and its subcontractors' employees, regardless of tier, except inventions made by subcontractors eligible to retain title to inventions pursuant to P.L. 96-517, as amended, and National Laboratories. BOC is leading a teaming arrangement to design and demonstrate an integrated fuel processor and compression system for producing fuel cell quality hydrogen.

Referring to item 2 in BOC's waiver petition, the purpose of this agreement encompasses the design and development of a hydrocarbon fuel processor system that directly produces high pressure, high-purity hydrogen from a single integrated unit. This will be accomplished by combining a membrane reformer with a metal hydride compression system in a single package. Ultimately, the objective is to demonstrate the lowest cost of producing fuel cell quality hydrogen in a fashion making hydrogen competitive with gasoline and diesel combustion vehicles.

The work under this agreement is expected to take place over a period of three years at a total cost of \$3,840,476. BOC is obligated to cost share \$1,344,470 or about 35% percent of the total cost of the project.

In view of the cost sharing and other equities between BOC and its subcontractors, it is anticipated that the parties will develop an appropriate allocation of patent rights among the participants to facilitate the expeditious development of the technology forming the subject matter of the agreement. Accordingly, DOE will waive title to all subject inventions made by BOC's employees and its subcontractors' employees, regardless of tier, except inventions made by subcontractors eligible to retain title pursuant to P.L. 96-517, as amended, or National

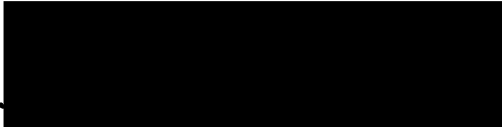
Laboratories, to BOC or its subcontractors, as mutually agreed by the parties. Except as otherwise approved in writing by DOE Patent counsel, a party's acceptance of a subcontract under this agreement, at any tier, shall constitute BOC's certification that it has provided that party with a copy of this Statement of Considerations and that party's notice to DOE that it accepts the terms and conditions of this advance waiver. Additionally, subcontractors who receive title under this waiver shall notify DOE Patent Counsel in writing of such disposition of patent rights.

Referring to items 5-9 of BOC's waiver petition, BOC is a global entity specialized in production of industrial gases. As noted in BOC's waiver petition, BOC owns and operates over 100 hydrogen plants throughout the world. This, coupled with BOC's cost sharing, clearly demonstrates the likelihood that BOC will continue development and commercialization of the results of this agreement.

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

Referring to item 10 of the waiver petition, granting this waiver is not anticipated to have any adverse impact on competition as there are a variety of competing technologies in the relevant market.


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.


Thomas G. Anderson
Assistant Chief Counsel
Intellectual Property Law Division

Date: 8/30/05

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:


Steven G. Chaik, Program Manager
Office of Hydrogen, Fuel Cells
& Infrastructure Technologies
Program, EE-2H

Date: 2-7-06

APPROVAL:


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

Date: 2-7-06

(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.