

STATEMENT OF CONSIDERATIONS

REQUEST BY THE GE GLOBAL RESEARCH CENTER (GE) FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS UNDER INL SUBCONTRACT 89822 UNDER DOE PRIME CONTRACT NO. DE-AC07-05ID14517; W(A)-2010-08; CH-1548

The Petitioner, GE, has requested a waiver of domestic and foreign patent rights for all subject inventions arising from its participation under the above referenced Subcontract entitled "Water Gas Shift Membrane Reactor for High Pressure Hydrogen Production." This waiver will not impact the rights of those parties subject to Public Law 96-517, as amended, nor shall it grant any rights in inventions made by employees of the National Laboratories.

The objective of the Subcontract, issued by the Idaho National Laboratory (INL), is to develop a polymer based membrane for the production of high pressure hydrogen from a water-gas-shifter reactor. Petitioner will develop processes for the surface preparation of steel and/or ceramic membrane supports. INL will work with the Petitioner on development of novel materials and processes for producing supported polymeric membranes that have the necessary selectivity and permeance. With input from INL, Petitioner will design, build, and test the new membranes.

The total anticipated cost of the Subcontract is \$1.15 million, with the Petitioner providing \$.39 million, for about twenty five percent (25%) cost sharing. This waiver is contingent upon the Petitioner maintaining, in aggregate, the above cost sharing percentage over the course of the Subcontract.

As noted in its waiver petition, Petitioner has extensive experience in inorganic materials and polymer processing, scalable coating technologies, and membrane processes to develop membrane supports. Petitioner has expended significant internal resources to developing a range of technologies for sustainable energy production, including reforming technologies and advanced cycles for energy production. Petitioner states that it has invested over \$75 million on programs related to sustainable energy technologies and is prepared to utilize its resources to further develop the technology that will be demonstrated under the Subcontract, including development of fuel flexible gasification technologies, the integration of technologies with GE power generation equipment, marketing to customers, and co-funding further development in this area. Considering Petitioner's technical expertise and significant investment in this technology including sizable cost sharing in this Subcontract, it is reasonable to conclude that Petitioner will continue to develop and ultimately commercialize the technology and products which may arise from this Subcontract.

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 U.S. competitiveness provisions as attached to this Statement. In brief, Petitioner has agreed that products embodying intellectual property developed under this agreement shall be substantially manufactured in the United States, and that Petitioner 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. Currently, hydrogen production occurs primarily through steam methane reforming of natural gas. The development of this technology has the potential to reduce the costs associated with hydrogen production from gasified coal or other carbonaceous feedstock and reduce the overall cost of hydrogen production. By enabling the production of hydrogen from a more diverse set of feedstock, this technology will enhance competition and spark continued research and investment in the technology.

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 Subcontract 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.

/D. Park/
Daniel D. Park
Assistant Chief Counsel
Intellectual Property Law Division
Chicago Office

Date: 2/17/10

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

CONCURRENCE:



Douglas E. Kaempf
Office of the Industrial
Technology Program
EE-2F

Date: 2/26/10

APPROVAL:



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

Date: _____

WAIVER ACTION - ABSTRACT
W(A)-2010-08

REQUESTOR

CONTRACT SCOPE OF
WORK

RATIONALE FOR DECISION

GE

Water Gas Shift Membrane
Reactor for High Pressure
Hydrogen Production

25% cost sharing

(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.