

STATEMENT OF CONSIDERATIONS

REQUEST BY GENERAL ELECTRIC GLOBAL RESEARCH CENTER FOR AN ADVANCE WAIVER OF PATENT RIGHTS TO INVENTIONS MADE UNDER COOPERATIVE AGREEMENT DE-FE0007514

W(A)-2012-004 ; CH-1650

General Electric Global Research Center (GE-GRC), requests an advance waiver of domestic and foreign patent rights for all subject inventions made under the above cooperative agreement for work entitled, "High Performance Thin Film Composite Hollow Fiber Membranes for Post-Combustion CO₂ Capture." The purpose of the cooperative agreement is the investigation of the technical and economic feasibility of developing novel thin film composite hollow fiber membranes for post combustion carbon capture. Key deliverables include developing CO₂ selective polymeric material, hollow fiber supports and coating processes to demonstrate a thin film composite HF membrane to achieve 90% CO₂ capture efficiency with less than 35% increase in the cost of electricity. GE will be working with Idaho National Laboratory (INL), Georgia Institute of Technology (Georgia Tech), and Western Research Institute (WRI). This waiver is for inventions of GE-GRC only.

The work under this subcontract is expected to take place from October 1, 2011 to September 30, 2014, at a total cost of \$2,948,123. GE-GRC will provide \$589,625 or 20% cost share. DOE will provide \$1,619,498 to GE and \$739,000 through a Field Work Proposal to INL. See attached e-mail from the DOE Program Manager explaining this cost breakdown.

With respect to its technical competency in the field of complex commercial energy systems, in response to questions 4 and 5 of its waiver petition, GE-GRC states it has extensive experience in the design and optimization relative to system performance versus cost in these types of systems. GE states its research teams focus on technology development while maximizing the speed and impact of the specific research and engineering efforts. It has extensive experience in development of commercialized membrane products and chemistries, and GE lists two related patent disclosures in the area of membranes for CO₂ capture. GE-GRC has demonstrated its technical competency in the field of complex commercial energy systems.

In response to question 10 of its waiver petition, GE-GRC states that there will be no adverse effect on competition and market concentration if the waiver is granted. There are competitive carbon capture processes and technologies using membranes out in the marketplace, and others coming into the marketplace, including membrane technologies such as those from MTR, Air Liquide, Praxair, and others. Technology development and innovation are pro-competitive and will spark continued research in this area of technology. Therefore grant of the waiver will 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 contractor agrees to the attached revised paragraph (h) to submit annual reports every 12 months (or such longer period as may be specified by the Patent Counsel) from the date of the contract on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Contractor and any of its licensees or assignees.

The Contractor agrees to submit the annual reports for (10) ten years following the completion of the project period or until the patent is allowed to lapse or expire, whichever comes first. If sold or transferred this reporting obligation will pass on to the buyer or transferee for completion of the ten year period of time.

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.

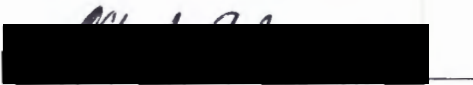


Mark P. Dvorscak
Deputy Chief Counsel
Intellectual Property Law Division

Date: February 7, 2012

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:



Mark Ackiewicz, FE-223
Division of Carbon Capture and
Storage Research

Office of Fossil Energy

Date: 4/27/2012

APPROVAL:



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

Date: 5/4/2012

(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.

(h) Reporting on utilization of subject inventions.

The Contractor agrees to submit annual reports every 12 months (or such longer period as may be specified by the Patent Counsel) from the date of the contract on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Contractor and any of its licensee or assignees. Such reports may include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Contractor, and such other data and information as DOE may reasonably specify. However, DOE agrees to permit periodic discussions with the Contractor, on the possibility of alternative report contents or reporting schedules which the DOE deems sufficient to provide the necessary information on utilization of the subject inventions. The Contractor also agrees to provide additional reports as may be request by DOE in connection with any march-in proceedings undertaken by DOE in accordance with paragraph (j) of this clause. To the extent data or information supplied under this paragraph is considered by the Contractor, its licensee or assignee to be privileged and confidential and is so marked, DOE agrees that, to the extent permitted by law, it shall not disclose such information to persons outside the Government. The Contractor agrees to submit the annual reports for (10) ten years following the completion of the project period or until the patent is allowed to lapse or expire, whichever comes first. If sold or transferred this reporting obligation will pass on to the buyer or transferee for completion of the ten year period of time.