

## STATEMENT OF CONSIDERATIONS

### REQUEST BY GENERAL ELECTRIC GLOBAL RESEARCH CENTER FOR AN ADVANCE WAIVER OF PATENT RIGHTS TO INVENTIONS MADE UNDER COOPERATIVE AGREEMENT DE-FE0005712; W(A)-2011-067 ; CH-1639

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, "Model Based Optimal Sensor Network Design for Condition Monitoring in an IGCC Plant". The purpose of the cooperative agreement is to develop a systematic model-based approach for addressing the problem of optimal sensor placement (OSP) in a sensor network used for condition monitoring of key process equipment in an IGCC plant, namely, gasifier refractory lining and RSC fouling. This waiver is for inventions of GE-GRC only.

The work under this cooperative agreement is expected to take place from August 20, 2010 through December 30, 2012, at a total cost of \$1,195,894. GE-GRC will provide 20% cost share or \$239,180. DOE will provide the remaining 80% or \$956,714.

In response to question 4 of the waiver petition, GE-GRC states it has a strong and diverse expertise in modeling, advanced controls, optimization, signal processing, estimation and diagnostics, using advanced model-based techniques. Through its Automation and Controls Lab, it works with multiple GE businesses across a plurality of industrial applications including combined cycle power generation, wind turbines, and aircraft engines, and has multiple patents. GE Energy Gasification has a significant experience in IGCC technology and is currently pursuing commercial implementation of this technology through improved design and system integration. GE-GRC provides a list of representative patents. GE-GRC also states that it is active in the power generation industry as a supplier for a range of gas and steam turbines for combined cycle plants, and that it is providing sensing, monitoring and control solution for power generation equipment and plants. GE-GRC has demonstrated its technical competency in the field of advanced model-based techniques.

In response to question 10 of its waiver petition, GE-GRC states that the effect on market concentration is expected to be minimal as the work done on this project would provide specific algorithms for placing optimal sensors, and that other vendors can develop other algorithms specific to their configuration. 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 licensee 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: December 29, 2011

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:

APPROVAL:

  
Regis Conrad  
Division of Cross-  
Cutting Research  
Office of Fossil Energy  
FE-224

  
John H. Lucas  
Assistant General Counsel for  
Technology Transfer and  
Transfer and Intellectual Property  
GC-62

Date 12 June 12

Date 6/13/2012

(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 requested 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.