

STATEMENT OF CONSIDERATIONS

REQUEST FOR ADVANCE WAIVER OF PATENT RIGHTS BY GENERAL ELECTRIC COMPANY, UNDER DOE AWARD NO. DE-FE0024007; W(A)-2018-005, CH-1795

Petitioner, General Electric Company (GE) requested a waiver of: (a) domestic and foreign patent rights for all subject inventions conceived solely by Petitioner and (b) Petitioner's undivided interest, based on its employee's contributions, to joint domestic and foreign patent rights for all subject inventions conceived, arising under the above referenced award.

The objective of Petitioner's award is the development of low-leakage shaft end seals for utility-scale supercritical carbon dioxide (SCO₂). The project aims to develop sealing technology (i.e. design, fabricate and perform lab testing of seals) to technology readiness level 6. The design and testing of the seals will be performed by GE Research (prime contractor) and Southwest Research Institute (Sub contractor). The work will involve several sub-scale tests, and progress to full-scale tests and demonstrations of the sealing technology.

The original cost of the award was \$999,653.00 of which the Government was to contribute \$699,757.00 in addition to Petitioner's contribution of \$299,896.00. With all modifications, the total cost of the award is \$8,617,402 with the Government share of \$6,824,098 and Petitioner's cost share of \$1,793,304 (or about twenty percent (20%)). This waiver is contingent upon Petitioner maintaining, in aggregate, the above cost sharing over the course of the award. The period of performance is from October 01, 2014 to August 31, 2019.

Referring to items 5-9 of the waiver petition, Petitioner has significant experience in this field. Petitioner operates a seals laboratory which has successfully validated thermal/ CFD/ mechanical seal design tools and has collectively authored more than 250 patents in sealing technology over the past 25 years. Petitioner's products include steam turbines, aircraft engines, and supercritical CO₂ turbines which align with the seal technology to be researched under this award. Petitioner asserts they are prepared to utilize substantial resources to further develop the technology developed under this program, including integration of the technology with their power and aviation products; marketing to existing and future customers, and co-funding further development and demonstration program.

Petitioner has agreed that this waiver will be subject to the march-in and preference for U.S. industry provisions, as well as the U.S. Government license, set out in 35 U.S.C. 202-204. Further, Petitioner has agreed to the attached U.S. Competitiveness provision (paragraph (t)). Petitioner further has agreed to the attached revised paragraph (h) to submit annual reports on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by Petitioner and any of its licensee or assignees. If sold or transferred this reporting obligation will pass on to the buyer or transferee.

Petitioner has agreed that products embodying a waived invention or produced through the use of a waived invention will be manufactured substantially in the United States unless the

Petitioner can show to the satisfaction of the DOE that it is not commercially feasible to do so. Petitioner has further agreed to make the above conditions binding on any assignee or licensee or any entity otherwise acquiring rights in the waived inventions, including subsequent assignees and licensees. Should Petitioner or other such entity receiving rights in a 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 inventions is suspended until approved in writing by DOE.

Referring to item 10 of the waiver petition, granting this waiver will not have an adverse impact on competition. There are already competing sealing technologies marketed by several seal vendors. Further, competing machinery manufacturers are also researching the sealing technology field. Since the field contains competing technologies as well as competitors performing their own research, granting this waiver will not hinder competition in this field.

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 784, all of which have been considered, it is recommended that the requested waiver be granted.

[REDACTED]
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Date: 09/12/2018

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Date: 9/24/2018

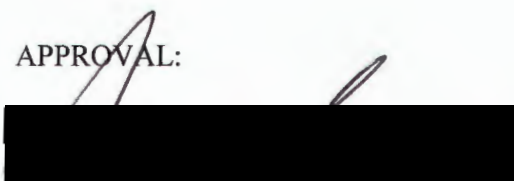
Based upon the foregoing Statement of Considerations and representations in the attached waiver petition, it is determined that the interests of the U.S. and the general public will best be served by a waiver of patent rights of the scope described above, and therefore the waiver is granted. This waiver will not apply to any modification of extension of the award, where through such modification or extension, the purpose, scope or cost of the award has been substantially altered.

CONCURRENCE:


Regis K. Conrad
Director
Division of Advanced Energy Systems
FE-221

Date: 25 Oct 18

APPROVAL:


Brian J. Lally
Assistant General Counsel for Technology
Transfer and Intellectual Property
GC-62

Date: 11/7/18