STATEMENT OF CONSIDERATIONS

IDENTIFIED WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS IN THE IDENTIFIED INVENTIONS MADE BY GENERAL ELECTRIC GLOBAL RESEARCH DURING PERFORMANCE OF AWARD DE-FE0024293

W(I)-2019-001; CH-1802; S-145,296; U.S. Patent Appl. No. 15/688,113
W(I)-2019-002; CH-1803; S-145,333; U.S. Patent Appl. No. 15/688,109
W(I)-2019-003; CH-1804; S-145,334; U.S. Patent Appl. No. 15/688,102
W(I)-2019-004; CH-1805; S-143,892; U.S. Patent Appl. No. 15/198,502
W(I)-2019-005; CH-1806; S-147,639; U.S. Patent Appl. No. 16/102,221
W(I)-2019-006; CH-1807; S-147,903; U.S. Patent Appl. No. 16/102,323
W(I)-2019-007; CH-1808; S-148,081; U.S. Patent Appl. No. 16/102,371

This waiver request is for domestic and foreign rights in the above identified inventions made by employees of General Electric Global Research (hereinafter Petitioner) during the performance of award DE-FE0024293. Petitioner has requested the instant patent waivers to obtain clear title to an undivided interest in the above identified inventions.

The objective of the DE-FE0024293 award was develop an integrity inspection system capable of detecting physical flaws in the wellbore structure of conventional and unconventional hydrocarbon producing wells. The functional principle of this wellbore integrity inspection system was the combination of high-energy modalities such as X-ray and neutron backscatter imaging, with conventional low-energy modalities such as electromagnetic or ultrasound imaging techniques. The seven inventions requested by Petitioner relate directly to the inspection system developed under this award.

The funding directed to the award totaled $3,110,860, of which $2,488,688 was provided by DOE and $622,172, or about twenty percent (20%) was provided as cost-share by GE. The period of performance was from October 1, 2014 to March 31, 2017

Referring to items 5-9 of the waiver petitions, Petitioner has extensive experience in the design of inspection systems used in energy, healthcare, and aviation industries. Closely related to the Subject Inventions, Petitioner also has experience in the commercialization of inspection, detection, and sensor products using x-ray and neutron interrogation techniques. Petitioner is currently engaged in a program to integrate the technology captured in the Subject Inventions into downhole logging tools within their Baker Hughes affiliate's well integrity product line. The tools will address the need for thorough wellbore investigation before abandoning producing wells. Continued development by Petitioner is expected to have an initial cost of approximately $2 million. Petitioner asserts granting the requested waiver will more effectively promote the development and commercial utilization of these inventions.

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). In brief, 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 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 the 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 have little if any adverse impact on competition in this technology. Inspection technology is in an area with intense competition and there are multiple competing methodologies within that technological field. As noted by Petitioner, there are already multiple competitors in the market currently manufacturing sensors such as those developed under this award.

Considering the foregoing, it is believed that grant this waiver will provide the 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: 7/9/2019

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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.

CONCURRENCE:

[redacted]

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Director
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Office of Oil and Gass
FE-321

Date: 10-21-19

APPROVAL:

[redacted]

Brian J. Lally
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Date: 12/22/19

WAIVER ACTION - ABSTRACT

W(I)-2019-001; W(I)-2019-002; W(I)-2019-003; W(I)-2019-004;
W(I)-2019-005; W(I)-2019-006; W(I)-2019-007

REQUESTOR	CONTRACT SCOPE	RATIONALE FOR DECISION
General Electric Global Research	Develop an integrity inspection system capable of detecting physical flaws in the wellbore structure of conventional and unconventional hydrocarbon producing wells.	Petitioner has extensive experience in the design of inspection systems, experience in the commercialization of inspection, detection, and sensor products using x-ray and neutron interrogation techniques, and intends to continue development to commercialization.

U.S. Competitiveness Clause

The waiver recipient 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 waiver recipient 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 waiver recipient agrees that it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements. The waiver recipient further agrees that in the event a controlling interest is to be acquired by a foreign entity in the waiver recipient or in any assignee or licensee of a waived invention, then in that case any rights in the waived invention to be acquired by the foreign entity will be subject to the written approval of the DOE. Contractor's agreement as set forth herein to manufacture in the U.S. will be met if the majority (i.e., at least 51%) of each product embodying any waived invention or produced through the use of any waived invention is manufactured in the U.S.