STATEMENT OF CONSIDERATIONS

REQUEST FOR ADVANCE WAIVER OF PATENT RIGHTS BY GENERAL ELECTRIC COMPANY, UNDER DOE AWARD NO. DE-NE0008823; W(A)-2018-008, CH-1797

Petitioner, the General Electric Company (GE), requested a waiver of domestic and foreign patent rights for all subject inventions arising under the above referenced award. The award is entitled "DEVELOPMENT OF LWR FUELS WITH ENHANCED ACCIDENT TOLERANCE". 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 Petitioner's award is the development of light water reactor fuels with enhanced accident tolerance. This work is a continuation of previous work completed under DE-NE0008821. The research aim is to continue evaluation of iron-chromium-aluminum alloys (IronClad) for cladding applications. Specifically, the project is to evaluate the alloys' performance during both normal operating and accident conditions in the reactor systems. Additionally, the research will evaluate materials such as silicon carbide for channels and coatings for zircaloy.

The total cost of the award is \$43,722,161.00 of which the Government is to contribute \$34,977,729.00 in addition to Petitioner's contribution of \$8,744,432.00, 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 anticipated to be from October 01, 2018 to January 31, 2021.

As noted in its waiver petition, Petitioner has extensive experience in the research and design of commercial energy systems including nuclear light water reactors and related services. Petitioner both sells and services these nuclear reactor systems. In addition to nuclear systems, Petitioner has related experience in aviation, materials manufacturing, and alloy development which Petitioner asserts it will leverage in the accident tolerant fuel (ATF) project. In addition to the ATF project, Petitioner will make a substantial investment in technology such as by developing welding equipment and techniques for the manufacture of the ATF. Finally, Petitioner states granting this waiver important to commercialization of the products developed.

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 a waived invention or produced through the use of a waived invention 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 expected to have an adverse impact on competition. Petitioner cites to a competitive market with multiple parties working to improve this technology and differentiate themselves from the other competitors. In

addition to development in the nuclear energy field, research and development in alternative energy sources such as renewable energy and fossil fuel powered systems continues to receive significant support. Granting the waiver petition is not expected to hinder competition in the field. Rather, the success of this award can be expected to stimulate further investment and competition in this 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 award 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.

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Date: _01/02/2019____

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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. This waiver will not apply to any modification or extension of the award, where through such modification or extension, the purpose, scope or cost of the award has been substantially altered.

CONCURRENCE: Bill McCaughey / Acting Director Office of Advanced Fuel Technologies NE-42	APPROVAL:
	Brian J. Lally Assistant General Counsel for Technology Transfer and Intellectual Property GC-62
Date: 01/30/2019	Date: 2.1.19