## STATEMENT OF CONSIDERATIONS

REQUEST FOR ADVANCE WAIVER OF PATENT RIGHTS BY GE-HITACHI NUCLEAR ENERGY AMERICAS LLC., UNDER DOE AWARD NO. DE-NE0008325; W(A)-2015-008, CH-1730

The Petitioner, the GE-Hitachi Nuclear Energy Americas LLC. (GE-Hitachi), has requested a waiver of domestic and foreign patent rights for all subject inventions arising under the above referenced award. The award is entitled "Development/Modernization of Prism Probabilistic Risk Assessment (PRA)." 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 the Petitioner's award is the development Probabilistic Risk Assessment (PRA) methodologies for the modernization of an advanced non-light water reactor. This will be a further development of PRA developed for the PRISM sodium fast reactor. The research aims to 1) develop events modes for the risk of reactor plant hazards 2) conduct a hazards review to analyze risk from external hazards such as natural disasters 3) perform a review to understand risk during operating modes other than at-power and 4) integrate the results of the first three tasks.

The total anticipated cost of the award is \$2,892,816.00 including the Petitioner's contribution of \$590,222.00, or about twenty percent (20%) of the total cost of the work under the award. This waiver is contingent upon the Petitioner maintaining, in aggregate, the above cost sharing percentage over the course of the award.

As noted in its waiver petition, the Petitioner has more than five decades of experience in nuclear reactor analysis. The Petitioner also provides services including operating several designs of nuclear power plants, of which a PRA is necessary for licensing. Further, the Petitioner is a supplier of fuel products and services for commercial power reactors. The Petitioner has invested heavily in both capital and personnel towards the development of reactors and associated safety analysis. Additionally, the Petitioner notes they are currently completing design work for the North Anna reactor, and is also constructing the Lungmen Reactor. Considering the Petitioner's technical expertise and significant investment in this technology including cost sharing in this award, it is reasonable to conclude that the Petitioner will continue to develop and ultimately commercialize the technology and products which may arise from this award.

The 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, the Petitioner has agreed to the U.S. competitiveness provisions as attached to this Statement. In brief, the 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 the 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. The Petitioner cites to a competitive market where multiple PRA methodologies are already available. The availability of these methodologies inhibits the Petitioner from gaining a preferred or dominant position in the field of nuclear analysis in supporting new plant development. Granting the Petition will not 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 the 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.

Jacob A. Heafner

Patent Attorney
Intellectual Property Law Division
Integrated Support Center

Date:

Daniel D. Park Assistant Chief Counsel

Intellectual Property Division Integrated Support Center

Date:

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:	APPROVAL:
David Welling Deputy Director	John T. Lucas Assistant General Counsel for Technology
Office of Advanced Reactor Concepts NE-74	Transfer and Intellectual Property, GC-62
Date:	Date:

## WAIVER ACTION - ABSTRACT W(A)-2015-007

REQUESTOR GE-Hitachi Nuclear Energy Americas LLC.

## CONTRACT SCOPE

Development/Management of Prism Probability Risk Assessment (PRA).

RATIONALE FOR DECISION
GE-Hitachi has greater than five decades of experience in nuclear reactor analysis. The Petitioner also provides services including operating several designs of nuclear power plants. Further, the Petitioner is a supplier of fuel products and services for commercial power reactors. Further, the Petitioner has invested heavily in both capitol and personnel towards the development of reactors and associated safety analysis.

## (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.