PROJECT ARRANGEMENT
UNDER THE IMPLEMENTING ARRANGEMENT
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE MINISTRY OF EDUCATION, CULTURE, SPORTS, SCIENCE AND TECHNOLOGY OF JAPAN
CONCERNING COOPERATION IN RESEARCH AND DEVELOPMENT IN ENERGY AND RELATED FIELDS
FOR
COLLABORATIVE TESTING OF FIRST WALL AND BLANKET STRUCTURAL MATERIALS WITH MIXED SPECTRUM FISSION REACTORS

The Department of Energy of the United States of America and the Japan Atomic Energy Agency, hereinafter collectively referred to as the "Participants":

CONSIDERING that advanced irradiation experiments on structural and special purpose materials are very important parts of their respective fusion programs; and

ACTING under Section 4 of the Implementing Arrangement Between the Department of Energy of the United States of America and the Ministry of Education, Culture, Sports, Science and Technology of Japan Concerning Cooperation and Development in Energy and Related Fields of April 30, 2013 (hereinafter the "Implementing Arrangement"),

Have decided as follows:

Section 1

Objective

1. The objective of this Project Arrangement is for the Participants to jointly pursue the Collaborative Research Program which focuses on material irradiations and Post-Irradiated Examination (PIE) using the High Flux Isotope Reactor (HFIR), a mixed-spectrum, water-cooled (<100°C), multi-purpose research reactor at Oak Ridge National Laboratory (ORNL), and other existing ORNL facilities as well as facilities in Japan, for the examination of irradiated materials.

2. This Project Arrangement is under the Implementing Arrangement, which is, in turn, subject to and governed by the Agreement Between the Government of the United States of America and the Government of Japan on Cooperation in Research and Development in Science and Technology signed June 20, 1988, as amended and extended (hereinafter referred to as "the Agreement").

Section 2

Technical Scope

1. The Collaborative Research Program supports the development of in-vessel components of a fusion reactor, including the ITER Test Blanket Modules (TBM), as well as the development of the material database for facilities beyond ITER. Specific objectives include:

a. Achieve DEMO-relevant performance data on fusion reactor materials, including reduced activation ferritic/martensitic steels (RAFM) neutron irradiated in HFIR with no high levels of displacement damage; and

b. Establish materials response, relevant to ITER TBM and other near-term devices.

2. The Collaborative Research Program includes the exchange of information, personnel and equipment which are required for its implementation; and meetings and workshops to exchange information and discuss implementation of the Collaborative Research Program.

Section 3

Management

1. A Joint Working Group (JWG), composed of an equal number of representatives of each Participant, will be established for the detailed management of the Collaborative Research Program, including technical progress reviews and discussions of future activities of the cooperation under this Project Arrangement.

2. Each Participant should designate one Project Leader and one deputy, who will be responsible for working contacts between the Participants.

3. The JWG should meet annually or as required on dates and at locations mutually decided.

4. The JWG should develop its own procedures to fulfill its functions.

5. The Participants may invite, as appropriate, representatives of relevant government agencies, research centers and other institutions in their respective countries to participate in the JWG meetings and other events conducted by the Participants under this Project Arrangement.

Section 4

Funding

A Participant may make cash contribution(s) to the other Participant to conduct the activities described in this Project Arrangement. The amount of cash contribution(s), if any, between the Participants should be discussed and decided at meetings of the JWG. Each such contribution should be paid as soon as possible when invoiced, and is subject to the availability of funds.

Section 5

Exchange of Personnel

Each Participant may assign its staff to the other Participant. Such exchange of personnel will be in accordance with Section 6 of the Implementing Arrangement.

Section 6

Exchange of Equipment

The Participants may exchange equipment needed for the Collaborative Research Program. Unless the Participants decide otherwise, such exchange of equipment will be in accordance with Section 7 of the Implementing Arrangement.

Section 7

Information Use and Disclosure

Information use and disclosure under this Project Arrangement will be in accordance with Section 8 of the Implementing Arrangement.

Section 8

Intellectual Property Rights

With respect to the protection and distribution of intellectual property rights and other rights of a proprietary nature created or furnished in the course of the cooperative activities under this Project Arrangement and the protection of business-confidential information exchanged under this Project Arrangement, the following paragraphs will apply in addition to the provisions set forth in Annex IV to the Agreement.

1. Inventions

For the purpose of this Project Arrangement, "Invention" means any invention made in the course of the cooperative activities under this Project Arrangement which is or may be patentable or otherwise protectable under the laws of Japan, the United States of America, or any third country.

In accordance with paragraph 3.B.(iii) of Annex IV to the Agreement, rights to an Invention made as a result of joint research conducted under this Project Arrangement, and allocation of benefits derived therefrom, are provided as follows:

- If an Invention is made solely by a Participant or its contractor, the Participant will obtain all right, title and interest in and to such Invention in all countries.
- If an Invention is made jointly by a Participant/contractor of both Participants, each Participant will obtain all right, title and interest in and to such Invention in its own country. In third countries where both Participants intend to obtain the right

to the Invention, the Participants will be joint owners of such rights. The Participants may jointly apply to obtain and/or maintain the relevant rights. The Participants should decide on appropriate cost sharing associated with obtaining and/or maintaining such rights.

- In any country where the Participant which is entitled to obtain the rights therein decides not to obtain such rights and interests, the other Participant has the right to do so.
- Each Participant will have, for its own research and development activities in the area envisaged under this Project Arrangement in its own country during the term of this Project Arrangement, a free right of use of Inventions, whether protected or not by intellectual property rights, solely owned by the other Participant and resulting from the joint research performed under this Project Arrangement.

2. Copyright

Allocation of rights to an Invention and benefits derived therefrom stipulated in paragraph 1 above will be applied *mutatis mutandis* to disposition of rights to copyrighted works created in the course of the cooperative activities conducted under this Project Arrangement.

Section 9
Commencement, Modification and Discontinuation

1. Cooperative activities under this Project Arrangement are to commence upon signature and, unless discontinued under the procedures described in paragraph 2 of this Section, are to continue so long as the Implementing Arrangement remains in operation.

2. This Project Arrangement may be modified by written consent of the Participants, so long as the Implementing Arrangement remains in operation.

3. This Project Arrangement may be discontinued at any time by both Participants in writing, or at the discretion of either Participant, which should provide at least 60 days advance notification in writing to the other Participant.

Signed in two originals.

FOR THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA:

Signature: for E. J. Synakowski James W. VanDam

Printed Name: Edmund J. Synakowski

Title: Associate Director of Science for Fusion Energy Sciences

Date : March 31, 2014

Place: Germantown, Maryland

FOR THE JAPAN ATOMIC ENERGY AGENCY:

Signature: 及川 哲邦

Printed Name: Tetsukuni OIKAWA

Title: Director, International Affairs Department

Date : March 13, 2014

Place: Tokai