Annex to the Implementing Arrangement Between the United States Department of Energy and the Japan Atomic Energy Research Institute on Cooperation in Research and Development in the Area of High Temperature Gas-Cooled Reactors.

> Annex 5. Collaborative Program for MHTGR and HTTR Development

## 1.0 Introduction and Terms of Reference

The United States Department of Energy (DOE) is supporting the development of the 350MWt Modular High Temperature Gas-Cooled Reactor (MHTGR) as a second generation nuclear power system. The Japan Atomic Energy Research Institute (JAERI) is constructing a 30MWt High Temperature Engineering Test Reactor (HTTR) in order to establish and upgrade Japan's High Temperature Gas-Cooled Reactor (HTGR) technology basis, and to conduct various irradiation tests at high temperatures for other technologies.

Pursuant to Article III-2 of the Implementing Arrangement between DOE and JAERI on Cooperation in Research and Development in the area of HTGRs dated September 27, 1985 (hereinafter referred to as the "DOE-JAERI Implementing Arrangement"), DOE and JAERI (hereinafter referred to as the "Parties") agree to establish this Annex to define the detailed provisions of this collaborative program for MHTGR and HTTR development (hereinafter referred to as the "Collaborative Program") in accordance with the provisions of the DOE-JAERI Implementing Arrangement, as follows:

## 2.0 Collaborative Program

2.1 The objective of this Collaborative Program is for each Party to supplement its database for MHTGR and HTTR development through the exchange of needed information efficiently and in a cost-saving manner. Specific activities shall include the exchange between Parties of relevant data and the results of their reviews and analyses.

2.2 The Collaborative Program is intended to include activities (hereinafter referred to as "Cooperative Projects") identified by either Party, developed and agreed to mutually, and approved by the Coordinating Committee (Section 3.4). Activities presently identified for development into Cooperative Projects include the exchange of design and licensing information, and the relevant supporting data in the field of fuel and fission products, graphite, metals, and components. Additional Cooperative Projects may be added as identified and appropriately developed and approved. 2.3 The details of the Cooperative Projects shall be described in Cooperative Project Plans, which shall be mutually agreed to in writing and approved by the Coordinating Committee. The information provided in the Cooperative Project Plan shall include the following: title, objective, background, description, projected schedule and costs, and management plan.

2.4 For the purpose of technical coordination and management, each Party shall designate a Cooperative Project Manager for each Cooperative Project and both shall be identified in the Cooperative Project Plan.

2.5 The documents and/or data that are provided by one party (hereinafter referred to as "the Transmitting Party") to the other (hereinafter referred to as "the Receiving Party") shall be prepared by the Transmitting Party as mutually agreed in the Cooperative Project Plans.

2.6 Both Parties shall use their best efforts to complete their planned activities according to the projected schedules contained in the Cooperative Project Plans.

2.7 According to the Cooperative Project Plans, the Receiving Party shall review and analyze information received under their Cooperative Projects and shall provide the Transmitting Party with the results of its reviews and analyses.

2.8 The Collaborative Program shall be conducted in accordance with the laws and regulations of the countries of the Parties. Compensation for damages incurred during the implementation of the Collaborative Program shall be in accordance with the applicable laws of the countries of the Parties.

3.0 Management

3.1 The Parties agree to establish a Coordinating Committee to manage the Collaborative Program.

3.2 The Coordinating Committee shall be composed of two members, one being designated by each Party. Each member shall have one vote and all decisions of the Coordinating Committee shall be by unanimity.

3.3 The Coordinating Committee shall meet annually or as required on a date and at a location as agreed to by the Parties.

3.4 The functions of the Coordinating Committee shall be to:

- 1) Review and approve the Cooperative Project Plans for the Collaborative Program.
- 2) Review, update, and revise the Cooperative Project Plans as needed.
- 3) Review the implementation of the Collaborative Program and recommend corrective actions to resolve any problems.
- 4) Review the costs and projections of expenditures.
- 5) Review and approve plans for personnel visits.

3.5 The Coordinating Committee shall coordinate its activities with the Joint Steering Committee established by the DOE-JAERI Implementing Arrangement.

4.0 Finance

4.1 Each Party shall be responsible for all costs of its own activities in each Cooperative Project.

4.2 The selection of Cooperative Projects for the Collaborative Program shall be made with the objective of achieving a long-term balance in the total amount of information provided by the Parties.

4.3 An assessment of the balance in information provided by the Parties for projects completed, and to be provided for projects underway and planned under the Collaborative Program shall be made annually by the Coordinating Committee. Some financial compensation may be made by one Party to the other as mutually agreed to offset imbalances.

4.4 It is understood that the ability of the Parties to carry out their obligations under this Annex is subject to the availability of appropriated funds.

5.0 Information

5.1 Under each Cooperative Project, the Transmitting Party shall use its best efforts to provide the Receiving Party with all required information identified in the Cooperative Project Plan.

5.2 Under each Cooperative Project, the Receiving Party shall use its best efforts to provide the Transmitting Party with all of the analyses and reports identified in the Cooperative Project Plan.

5.3 Under each Cooperative Project, the Receiving Party shall use its best efforts to send the Transmitting Party all information resulting from the analyses prior to the release of such information to any third party.

5.4 Proprietary information as defined in Article VI of the DOE-JAERI Implementing Arrangement shall not be accepted for or utilized in the Collaborative Program without the express mutual written agreement of the Parties setting forth the terms and conditions for such acceptance or utilization.

5.5 Article VII of the DOE-JAERI Implementing Arrangement shall be applied to the Collaborative Program.

## 6.0 Patents

6.1 With regard to inventions or discoveries made or conceived by the Receiving Party in the course of or under the agreement involving the analyses of the Transmitting Party's documents and/or data that are improvements in HTGR designs including overall plant, system, subsystem and component designs, the Transmitting Party shall acquire all right, title, and interest in and to such inventions or discoveries in its country, subject to a nonexclusive, irrevocable, royalty-free license to the Receiving Party, its Government, and its nationals designated by it. The Receiving Party shall acquire all right, title, and interest in and to such inventions or discoveries in its country and third countries, subject to a nonexclusive, irrevocable, royalty-free license to the Transmitting Party, its Government, and its nationals designated by it. The Parties shall each assume the responsibility to pay awards or compensation required to be paid to its own nationals according to its own laws. The Parties shall each, without prejudice to any rights of inventors under its national laws, take all necessary steps to provide the cooperation from its inventors required to carry out the provisions of this paragraph.

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## 7.0 Duration

7.1 The Collaborative Program shall enter into force upon the latter date of signature of this Annex by the Parties and shall remain in force for the period the DOE-JAERI Implementing Arrangement remains in force.

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