



IMPLEMENTING ARRANGEMENT

AMONG

THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA, THE DEPARTMENT OF NATURAL RESOURCES OF CANADA, AND ATOMIC ENERGY OF CANADA LIMITED FOR COLLABORATION IN THE AREA OF NUCLEAR ENERGY RESEARCH AND DEVELOPMENT

THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA (DOE), THE DEPARTMENT OF NATURAL RESOURCES OF CANADA (NRCAN), AND ATOMIC ENERGY OF CANADA LIMITED (AECL), hereinafter each a "Participant" and collectively the "Participants",

ACTING pursuant to Article 6 of the Agreement Among the Government of the United States of America, the Government of Canada, and the Government of the United Mexican States for Cooperation in Energy Science and Technology, done at Victoria, British Columbia on 23 July 2007 (the "Trilateral Agreement"); and

CONSIDERING the International Nuclear Energy Research Initiative (INERI) program, which provides an effective means for international collaboration directed toward achieving better coordinated and more effective energy research and development for the mutual benefit of the participating entities, based on equality and reciprocity,

HAVE COME to the following arrangement:

1. OBJECTIVE

- (a) The objective of this Implementing Arrangement is to establish a framework for collaboration between DOE on the one hand, and NRCan and/or AECL on the other hand, on research and development (R&D) programs and activities aimed at furthering a basic understanding of, and finding solutions to, common problems associated with the peaceful uses of nuclear energy in the civilian sector and its application, and for improving the cost, safety, and proliferation-resistance of civilian nuclear energy systems.
- (b) The Participants intend to engage in this cooperation through the INERI program.
- (c) The Participants understand that this Implementing Arrangement is subject to the Trilateral Agreement, and that the provisions of the Trilateral Agreement apply to activities under this Implementing Arrangement.

2. AREAS OF COLLABORATION

- (a) The Participants understand that technical areas for collaboration under this Implementing Arrangement may include:
 - (i) Nuclear safety, reactor lifetime management and extension and sustainability, innovative reactors, and related R&D studies and capabilities;
 - (ii) Advanced reactor materials irradiation, development, and testing;
 - (iii) Advanced reactor fuel development for existing and next-generation reactors, consistent with minimization of the use of highly-enriched uranium in the civilian sector;
 - (iv) Modeling and simulation;
 - (v) R&D related to used (spent) fuel recycling technologies, separations, and transmutation;
 - (vi) Used (spent) fuel and waste disposition;
 - (vii) Advanced reactor systems; and
 - (viii) Other related areas of mutual interest that they mutually decide upon.
- (b) The Participants understand that sensitive nuclear technology is specifically excluded from research under this Implementing Arrangement between DOE on the one hand, and NRCan and/or AECL on the other hand. As used herein, "sensitive nuclear technology" means any information (including information that

is incorporated in equipment or an important component thereof) which is not available to the public and which is important to the design, construction, fabrication, operation, or maintenance of any facility designed or used primarily for uranium enrichment, reprocessing of irradiated nuclear material, heavy water production, or fabrication of nuclear fuel containing plutonium; or any other such information that may be so designated by the Government of the United States of America, the Government of Canada, or an instrumentality of either of them.

3. FORMS OF COOPERATION

The Participants understand that their cooperation under this Implementing Arrangement may include:

- (i) Exchange and provision of information and data on scientific and technical activities, developments, practices, and results on program policies and plans including exchange of proprietary information on the terms and conditions set forth in Annex 1 to the Trilateral Agreement;
- (ii) Exchange of scientists and engineers, and other specialists for mutually decided upon periods of time in order to participate in experiments, analysis, design and other R&D activities at existing and new research centers, laboratories, engineering offices, and other facilities and enterprises of each Participant or its respective associated organizations or contractors in accordance with Article 7 of the Trilateral Agreement;
- (iii) Meetings of various forms to discuss and exchange information on scientific and technological aspects of general or specific subjects in the areas listed in paragraph 2 of this Implementing Arrangement, and to identify additional cooperative actions which may be usefully carried out:
- (iv) Exchange and provision of samples, materials, and equipment for experiments, testing and evaluation in accordance with Articles 8 and 9 of the Trilateral Agreement;
- (v) Execution of joint studies, projects or experiments, including their joint design, construction and operation; and
- (vi) Other specific forms of cooperation as they may mutually decide upon.

4. MANAGEMENT

Each Participant intends to designate a Coordinator to supervise the implementation of this Implementing Arrangement on its behalf. Unless they otherwise mutually decide, the Participants understand that the Coordinators are expected to:

- (i) Meet in person, or confer by teleconference or videoconference, at least once a year;
- (ii) Approve and monitor all cooperative activities to be carried out under this Implementing Arrangement;
- (iii) Create separate subcommittees in any of the areas of cooperation to facilitate implementation of projects carried out under this Implementing Arrangement;
- (iv) Review and evaluate any proposed activities and the status of cooperation under this Implementing Arrangement; and
- (v) Give appropriate guidance and direction to the project managers responsible for the activities carried out under this Implementing Arrangement.

5. PROJECT ANNEXES

The Participants understand that:

- (i) They, or their laboratories or contractors, as appropriate, may carry out cooperative activities under this Implementing Arrangement.
- (ii) Each cooperative activity that may involve the sharing of costs or that may give rise to intellectual property is expected to be set forth in a Project Annex subject to this Implementing Arrangement.
- (iii) Each Project Annex is expected to include detailed provisions for conducting and managing the cooperation, and to cover such matters as technical scope, work plan, staffing requirements, funding sources and budget, exchange of proprietary information, and any conditions necessary to the proposed activity.

6. Funding

(a) Unless the Participants specifically decide otherwise in writing, each Participant intends to pay for all costs it incurs in carrying out cooperative activities under this Implementing Arrangement.

(b) Each Participant understands that it is not required to make awards or commit funds for any projects in any given fiscal year.

7. GENERAL CONSIDERATIONS

- (a) Collaboration under this Implementing Arrangement is expected to commence upon its last signature by the Participants, and to continue so long as the Trilateral Agreement remains in force.
- (b) The Participants may modify this Implementing Arrangement upon their mutual written consent, so long as the Trilateral Agreement remains in force.
- (c) The Participants may discontinue this Implementing Arrangement upon their mutual written consent.
- (d) A Participant that wishes to discontinue its participation in this Implementing Arrangement is expected to provide at least 6 months advance notice in writing to the other Participants. The withdrawal of either (i) DOE or (ii) both NRCan and AECL effects the discontinuation of this Implementing Arrangement.
- (e) The Participants understand that joint efforts and experiments not completed upon the discontinuation of this Implementing Arrangement may be continued to their completion within the framework of this Implementing Arrangement.

SIGNED in duplicate, at Washington on the 3 day of January 2015, in the English and French languages.

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

FOR THE DEPARTMENT OF NATURAL RESOURCES OF CANADA AND ATOMIC ENERGY OF CANADA

LIMITED: