

**ATOMIC ENERGY**

**Research and Development**

**Agreement Between the  
UNITED STATES OF AMERICA  
and OTHER GOVERNMENTS**

Signed at Washington February 28, 2005



NOTE BY THE DEPARTMENT OF STATE

Pursuant to Public Law 89—497, approved July 8, 1966  
(80 Stat. 271; 1 U.S.C. 113)—

“ . . . the Treaties and Other International Acts Series issued under the authority of the Secretary of State shall be competent evidence . . . of the treaties, international agreements other than treaties, and proclamations by the President of such treaties and international agreements other than treaties, as the case may be, therein contained, in all the courts of law and equity and of maritime jurisdiction, and in all the tribunals and public offices of the United States, and of the several States, without any further proof or authentication thereof.”

## **MULTILATERAL**

### **Atomic Energy: Research and Development**

*Agreement signed at Washington February 28, 2005;  
Entered into force February 28, 2005.*

**FRAMEWORK AGREEMENT  
FOR  
INTERNATIONAL COLLABORATION  
ON RESEARCH AND DEVELOPMENT OF  
GENERATION IV NUCLEAR ENERGY SYSTEMS**

The Parties to the present Framework Agreement,

**CONSIDERING** the expected increase in energy demand worldwide, and the contribution that the development and deployment of innovative technologies and fuels can make to meet future global energy demand in a sustainable manner;

**CONSIDERING** that collaboration on research and development by many countries on the development of advanced next generation nuclear energy systems will aid progress toward the realization of such systems;

**CONSIDERING** that Parties or their ministries, departments, agencies or other entities have signed a Charter for the Generation IV International Forum (hereinafter referred to as "GIF") as a basis for international collaboration on research and development for the next generation of nuclear energy systems (hereinafter referred to as "Generation IV Systems");

**CONSIDERING** that GIF members have created a standing governance structure composed of a Policy Group, Experts Group, and Secretariat, to implement the Charter;

**CONSIDERING** that the GIF has completed "A Technology Roadmap for Generation IV Nuclear Energy Systems: Technical Roadmap Report" (December 2002) (hereinafter referred to as "Technology Roadmap") which identifies the six most promising Generation IV Systems as well as the research and development necessary to advance these Systems to technical maturity;

**NOTING** that the Generation IV Systems are: Gas-Cooled Fast Reactor System, Lead-Cooled Fast Reactor System, Molten Salt Reactor System, Sodium-Cooled Fast Reactor System, Supercritical-Water-Cooled Reactor System, and Very-High-Temperature Reactor System;

**DESIRING** to facilitate the pursuit of collaborative research and development of the Generation IV Systems by the Parties and their ministries, departments, agencies and other entities, together with the industrial, academic, governmental and non-governmental sectors of the international research community, to advance the Generation IV Systems identified in the Technology Roadmap; and

**NOTING** the Paris Convention for the Protection of Industrial Property of 20 March 1883, as revised and amended;

**HAVE AGREED** as follows:

**Article I**  
**Objective**

- 1) The objective of this Framework Agreement is to establish a framework for international collaboration to foster and facilitate achievement of the purpose and vision of the GIF: the development of concepts for one or more Generation IV Systems that can be licensed, constructed, and operated in a manner that will provide a competitively-priced and reliable supply of energy to the country(ies) where such systems may be deployed, while satisfactorily addressing nuclear safety, waste, proliferation and public perception concerns.
- 2) Collaboration under this Framework Agreement shall be conducted only for peaceful purposes and in accordance with non-proliferation objectives and the Parties' international obligations relating thereto; and on the basis of equality, mutual benefit, and reciprocity.

**Article II**  
**Forms of Collaboration**

The forms of collaboration under this Framework Agreement may include, but are not limited to:

- a) joint research and technology development;
- b) exchange of technical information and data on scientific and technical activities and methods and results of research and development;
- c) support for the organization of technological demonstrations;
- d) conduct of joint trials/experiments;
- e) participation of staff (including scientists, engineers, and other specialists) in experiments, analysis, design and other research and development activities conducted at research centres, academic institutions, laboratories and other facilities;
- f) exchange or loan of samples, materials and equipment for experiments, testing and evaluation;
- g) organization of, and participation in, seminars, scientific conferences and other meetings;
- h) monetary contributions to the deployment of necessary experimental facilities; and
- i) training and enhancing the skills of scientists and technical experts.

**Article III**  
**Implementation**

- 1) The Parties shall encourage and facilitate, where appropriate, the development of direct contacts and collaboration between government agencies, academies of science, universities, science and research centres, institutes and institutions, private sector firms, and intergovernmental organizations.
- 2) Each Party shall, upon signature or deposit of an instrument of accession, designate itself or one or more of its ministries, departments, agencies or other entities as its Implementing Agent(s) to accomplish the objective set forth in Article I of this Framework Agreement. The Implementing Agents are identified in the Annex, which constitutes an integral part of this Framework Agreement.

- 3) A Party may designate additional Implementing Agent(s) or change its Implementing Agent(s) by written notification to the Depository (identified in Article XI). The additional or changed Implementing Agent designations shall take effect in accordance with paragraph 4 of Article XII.

**Article IV**  
**System Arrangements**

- 1) Implementing Agents of two or more Parties may enter into a System Arrangement for each of the six Generation IV Systems identified in the Technology Roadmap; provided, however, that:
  - a) there shall be only one System Arrangement for each Generation IV System; and
  - b) if a Party has more than one Implementing Agent, only one of them may be a signatory to a System Arrangement.
- 2) Each System Arrangement, which shall be consistent with and governed by the provisions of this Framework Agreement, shall establish a framework for collaboration to plan and conduct the research and development work necessary to establish the viability and performance of the Generation IV System concerned.
- 3) Each System Arrangement shall include implementing provisions concerning, *inter alia*:
  - a) collaboration to be undertaken;
  - b) management of the research and development activities undertaken to realize the objective of the GIF;
  - c) financial arrangements;
  - d) protection, use and disclosure of background proprietary information; and
  - e) adequate and effective protection and allocation of intellectual property created or furnished in the course of the collaboration under this Framework Agreement, including provisions for the resolution of disputes concerning intellectual property rights.
- 4) In the event of any inconsistency between a System Arrangement and this Framework Agreement, the provisions of this Framework Agreement shall prevail.

**Article V**  
**Project Arrangements**

- 1) Each System Arrangement will be implemented through one or more Project Arrangements for research and development (R&D) projects designed to contribute to establishment of the viability and performance of the Generation IV System to which the project relates.
- 2) Implementing Agents may be signatories to Project Arrangements. Other entities in the public and private sectors may be signatories to Project Arrangements subject to the unanimous approval of a System Steering Committee to be established by the signatories to each System Arrangement to manage R&D collaboration for each Generation IV System.

- 3) Each Project Arrangement should address matters such as, but not limited to, scope of work, estimated cost, proposed schedule, project management responsibilities, intellectual property rights, reporting requirements, and provisions concerning withdrawal of signatories.
- 4) Each Project Arrangement shall be consistent with and governed by the provisions of the System Arrangement to which the subject project relates and of this Framework Agreement.
- 5) In case of any inconsistency between a System Arrangement and a Project Arrangement, the provisions of the System Arrangement shall prevail. In case of any inconsistency between a System Arrangement or Project Arrangement on the one hand, and this Framework Agreement on the other hand, the provisions of this Framework Agreement shall prevail.

#### *Article VI*

#### **Facilitation of Movement of Persons, Equipment and Materials; and Use of Data**

With respect to collaboration under this Framework Agreement, each Party shall, to the extent permitted by its international obligations, national laws and regulations:

- a) facilitate entry into and exit from its territory of appropriate personnel, equipment and materials of the other Parties used in collaboration under this Framework Agreement; and
- b) facilitate the exchange and use of scientific and technical data resulting from R&D conducted under this Framework Agreement.

#### *Article VII*

#### **Availability of Resources**

The activities of each Party under this Framework Agreement are subject to the availability of appropriated funds, personnel, and other resources.

#### *Article VIII*

#### **Applicable Law**

Each Party shall conduct the collaboration under this Framework Agreement in accordance with the applicable laws and regulations to which it is subject.

#### *Article IX*

#### **Disclosure of Information**

Scientific and technological information resulting from collaboration under this Framework Agreement, other than information which is not made available to the public for national security, commercial, or industrial reasons, shall be made available to the world scientific community through customary channels and in accordance with normal procedures of the Parties and their respective participating ministries, departments, agencies and other entities.

*Article X*  
**Settlement of Disputes**

- 1) Any dispute regarding the interpretation or application of this Framework Agreement shall be resolved through consultation between or among the Parties concerned.
- 2) Any dispute between two or more Project Arrangement signatories may be resolved in accordance with any method(s), set forth in a Project Arrangement, to which the Project Arrangement signatories concerned mutually agree in writing.

*Article XI*  
**Depositary**

- 1) The original of this Framework Agreement shall be deposited with the Secretary-General of the Organisation for Economic Co-operation and Development, who is hereby designated as Depositary. The Depositary shall fulfil his duties in accordance with Article 77 of the Vienna Convention on the Law of Treaties of 23 May 1969.
- 2) Following entry into force of this Framework Agreement in accordance with paragraph 2 of Article XII, the Depositary shall transmit a certified true copy of this Framework Agreement to the Secretary-General of the United Nations for registration and publication in accordance with Article 102 of the Charter of the United Nations; and likewise shall transmit certified copies of any amendments to this Framework Agreement which enter into force.

*Article XII*  
**Entry into Force, Amendment, Extension and Termination**

- 1) This Framework Agreement shall be open for signature only on 28 February 2005. A state, one or more of whose ministries, departments, agencies or other entities is a GIF member, or any GIF member composed of more than one state may become a Party to this Framework Agreement:
  - a) by signature not subject to ratification, acceptance or approval; or
  - b) by signature subject to ratification, acceptance or approval followed by deposit of an instrument of ratification, acceptance or approval; or
  - c) by deposit of an instrument of accession, in accordance with paragraph 1 of Article XIV.
- 2) This Framework Agreement shall enter into force when three Parties have indicated their consent to be bound: by signature not subject to ratification, acceptance or approval; or by deposit of an instrument of ratification, acceptance or approval. Thereafter, this Framework Agreement shall enter into force for a signatory on the date of deposit of its instrument of ratification, acceptance or approval; and shall enter into force for additional Parties in accordance with the provisions of paragraph 3 of Article XIV.
- 3) Subject to paragraph 5 of this Article, this Framework Agreement shall remain in force for a period of 10 years, and may be extended for additional periods by agreement of the Parties, in accordance with procedures to be elaborated by the Parties.

- 4) This Framework Agreement may be amended at any time by agreement of all Parties. Except as provided in paragraph 2 of Article XIV, an amendment shall enter into force for all Parties 30 days following the date of receipt by the Depository of the last written notification of acceptance of the amendment.
- 5) This Framework Agreement may be terminated at any time by agreement of all Parties. Termination shall be effective 30 days following the date of receipt by the Depository of the last written notification of acceptance of the termination.

***Article XIII***  
**Withdrawal**

- 1) A Party may withdraw from this Framework Agreement upon six months' written notice to the Depository. The Annex shall thereafter be amended to delete the name of the Party and that of its Implementing Agent(s), in accordance with procedures to be elaborated by the Parties.
- 2) A Party's withdrawal from this Framework Agreement shall constitute withdrawal by its Implementing Agent from any System Arrangement to which that Implementing Agent is a signatory.

***Article XIV***  
**Additional Parties**

- 1) After entry into force of this Framework Agreement, any state, one or more of whose ministries, departments, agencies or other entities is a GIF member, and any GIF member composed of more than one state, may become a Party to this Framework Agreement by depositing with the Depository an instrument of accession and a written notification of the Implementing Agent(s) to be designated in accordance with paragraph 2 of Article III.
- 2) When an additional Party deposits its instrument of accession and notification in accordance with paragraph 1 of this Article, the Depository shall circulate a proposed amendment to the Annex to specify the Implementing Agent(s) notified by that Party. Such amendment shall enter into force 90 days after the date of receipt by the Depository of that Party's notification, provided that no other Party has notified the Depository that it objects to the proposed amendment. In the event that the Depository receives an objection, the proposed amendment shall not enter into force, and the additional Party shall submit to the Depository a revised written notification of its Implementing Agent(s), which shall be subject to the same procedure.
- 3) This Framework Agreement shall enter into force as to each additional Party 90 days following the Depository's receipt of the instrument of accession of a state, one or more of whose ministries, departments, agencies or other entities is a GIF member, or of a GIF member composed of more than one state.
- 4) Each Party that accedes to this Framework Agreement after the entry into force of any amendment shall become a Party to the Framework Agreement as amended.

*Article XV*  
**Final Provision**

Any collaboration initiated under this Framework Agreement but not completed at the expiration or termination of this Framework Agreement may continue to completion under the provisions of this Framework Agreement.

**IN WITNESS WHEREOF**, the undersigned, being duly authorized, have signed this Framework Agreement.

**DONE** at Washington, in a single original, on the twenty-eighth day of February 2005, in the English and French languages, each text being equally authentic.

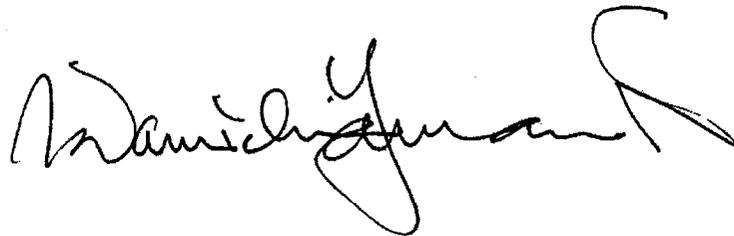
FOR THE GOVERNMENT OF CANADA:  
POUR LE GOUVERNEMENT DU CANADA :

A handwritten signature in black ink, appearing to read "Claude Lévesque". The signature is fluid and cursive, with a prominent initial "C" and a long, sweeping tail.

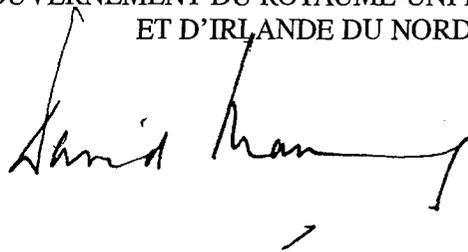
FOR THE GOVERNMENT OF THE FRENCH REPUBLIC:  
POUR LE GOUVERNEMENT DE LA RÉPUBLIQUE FRANÇAISE :

A handwritten signature in black ink, appearing to read "Alain Juppé". The signature is cursive and somewhat stylized, with a large initial "A" and a long, sweeping tail.

FOR THE GOVERNMENT OF JAPAN:  
POUR LE GOUVERNEMENT DU JAPON :

A handwritten signature in black ink, appearing to read "Watanabe". The signature is cursive and somewhat stylized, with a large initial "W" and a long, sweeping tail.

FOR THE GOVERNMENT OF THE UNITED KINGDOM OF GREAT BRITAIN  
AND NORTHERN IRELAND:  
POUR LE GOUVERNEMENT DU ROYAUME-UNI DE GRANDE-BRETAGNE  
ET D'IRLANDE DU NORD :

A handwritten signature in cursive script, appearing to read "David Hunt". The signature is written in black ink on a white background.

FOR THE GOVERNMENT OF THE UNITED STATES OF AMERICA:  
POUR LE GOUVERNEMENT DES ÉTATS-UNIS D'AMÉRIQUE :

A handwritten signature in cursive script, appearing to read "Samuel W. Bedman". The signature is written in black ink on a white background.

*Annex*

**Designated Implementing Agents of the Parties**

<b>Party</b>	<b>Designated Implementing Agent</b>
Government of Canada	Department of Natural Resources
Government of the French Republic	Commissariat à l'Énergie Atomique
Government of Japan	Agency for Natural Resources and Energy Japan Atomic Energy Research Institute Japan Nuclear Cycle Development Institute
Government of the United Kingdom of Great Britain and Northern Ireland	Department of Trade and Industry
Government of the United States of America	Department of Energy