

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

Whereas the Department of Energy of the United States of America (hereinafter referred to as "DOE") and the Science and Technology Agency of Japan (hereinafter referred to as "STA")) are desirous of conducting a program of cooperation in research and development in the area of High Temperature Gas-cooled Reactors (hereinafter referred to as "HTGR");

Whereas DOE and the Japan Atomic Energy Research Institute (hereinafter referred to as "JAERI") are to cooperate in the area of High Temperature Gas-cooled Reactors, as set forth in the exchange of Notes of September 27, 1985, between the Embassy of the United States of America and the Ministry of Foreign Affairs of Japan;

Whereas DOE has supported the development of the Peach Bottom HTGR and the Fort St. Vrain HTGR and is supporting the development of generic technology for HTGR's;

Whereas JAERI has carried out various kinds of research and development of HTGR technology with major experimental facilities; and

Whereas DOE and JAERI wish to implement cooperative activities in the research and development of HTGR technology;

Now, therefore, DOE and JAERI (hereinafter referred to as "the Parties") agree as follows:

ARTICLE I

Objective

The objective of the collaboration under this Implementing Arrangement is to establish comprehensive cooperation in the HTGR area in order to share planning information at an early stage, to accelerate the research and development of HTGR technology, and to enhance the capabilities of each other's HTGR program on the basis of reciprocity and mutual benefit.

ARTICLE II

Areas of Collaboration

The collaboration between DOE and JAERI in HTGR's research and development (hereinafter referred to as the "HTGR Collaboration") may include the following areas:

1. Development of HTGR program plans and policies which take into account each other's capabilities and objectives;
2. Materials for HTGRs and methods for testing and evaluation;
3. Fuels for HTGR's;
4. HTGR component development and testing;
5. Conceptual designs of HTGR's and HTGR systems;
6. Information on the operation of HTGR plants;
7. Studies of process heat application;
8. Evaluation of environmental and economic aspects of HTGR plants; and
9. Other areas as may be mutually agreed in writing.

ARTICLE III

Implementation of Collaboration

1. The implementation of the DOE-JAERI HTGR Collaboration may include, but is not limited to, the following activities:

- (1) exchange of scientific and technical information;
- (2) exchange of information on policies, program plans, practices, regulations and statutes concerning the research, development and utilization of HTGRs and HTGR technology;
- (3) holding of seminars, workshops, and other such meetings;
- (4) short-term visits by scientists, engineers and other experts to the facilities of the Parties;
- (5) exchange of scientists, engineers, and other experts for participation in research, development, analysis, design, planning, and experimental activities conducted at the facilities of the Parties;
- (6) exchange or loan of equipment, components, instruments

and materials by one Party for testing in the facilities of the other Party;

- (7) the use by one Party of the facilities owned and operated by the other or its designated representative;
- (8) Cooperative projects in which the Parties agree to share tasks and/or costs;
- (9) other forms of cooperation as may be mutually agreed in writing.

2. Specific details to implement activities in subparagraphs (6), (7), (8) and (9) above shall be determined through consultation between the Parties, and the specific terms and conditions to implement the activities shall be established as written Annexes to this Implementing Arrangement. For those Annexes where technology is to be developed jointly, some contributions may be made by one Party to the other as mutually agreed to take account of imbalances.

ARTICLE IV

Management

The Parties agree to establish a Joint HTGR Steering Committee, the structure and functions of which are as follows:

- (1) The Steering Committee shall be composed of two members designated by each Party. Each Party shall also designate an alternate representative who shall serve as a member of the Steering Committee should the designated representative be unable to do so. Each Party shall inform the other Party in writing of all designations under this paragraph.
- (2) Each Party shall have one vote in the Steering Committee and all decisions shall be by unanimity. The Steering Committee may invite advisers to meet with them, as appropriate.
- (3) The Steering Committee shall meet once each year alternately in the United State and Japan, unless otherwise agreed.
- (4) At its annual meetings, the Steering Committee shall:
 - a. review and evaluate the results of the HTGR Collaboration for the past year;
 - b. review and approve the plans for the HTGR Collaboration for the coming year, subject to formal written agreement as may be necessary;

- c. assess the balances of the various activities of the HTGR Collaboration and consider measures to correct any imbalances; and
- d. discuss and review such other matters as necessary to carry out the HTGR Collaboration.

ARTICLE V

Finance

1. Except when otherwise mutually agreed in writing, each Party shall bear all costs of its activities under this Implementing Arrangement.
2. The ability of the Parties to carry out their responsibilities under this Implementing Arrangement shall be subject to the availability of appropriated funds.

ARTICLE VI

Information

1. The Parties shall support the widest possible dissemination of information provided or exchanged under this Implementing Arrangement, subject to the need to protect proprietary information, to copyright restrictions, and to the provisions of Article VIII.

2. Use of proprietary information

Definitions as used in this Implementing Arrangement:

- (i) The term "information" means scientific or technical data, results or methods of research and development, and any other information intended to be provided or exchanged under this Implementing Arrangement.
- (ii) The term "proprietary information" means information which contains trade secrets or know-how or commercial or financial information which is privileged or confidential, and may only include such information which:
 - a) has been held in confidence by its owner;
 - b) is of a type which is customarily held in confidence by its owner;
 - c) has not been transmitted by the transmitting Party to other entities (including the receiving Party) except on the basis that it be held in

confidence; and

- d) is not otherwise available to the receiving Party from another source without restriction on its further dissemination.

3. Procedures

- (i) A Party receiving proprietary information pursuant to this Implementing Arrangement shall respect the privileged nature thereof. Any document which contains proprietary information shall be clearly marked by the providing Party with the following (or substantially similar) restrictive legend:

"This document contains proprietary information furnished in confidence under the Implementing Arrangement between the United States Department of Energy and the Japan Atomic Energy Research Institute of (date) and shall not be disseminated outside these organizations, their contractors, and the concerned departments and agencies of the Government of the United States and Japan without prior approval of _____ .

This notice shall be marked on any reproduction hereof, in whole or in part. These limitations shall automatically terminate when this information is disclosed by the owner without restriction."

- (ii) Proprietary information received in confidence under this Implementing Arrangement may be disseminated by the receiving Party to:
 - (a) persons within or employed by the receiving Party, concerned Government departments and Government agencies in the country of the receiving Party; and
 - (b) prime contractors or subcontractors of the receiving Party located within the geographical limits of the Party's nation for use only within the framework of their contracts with the receiving Party in work relating to the subject matter of the proprietary information;

provided that any proprietary information so disseminated shall be pursuant to an agreement of confidentiality and shall be marked with a restrictive legend substantially identical to that appearing in subparagraph 3(i) above.

- (iii) With the prior written consent of the Party providing proprietary information under this Implementing Arrangement the receiving Party may disseminate such proprietary information more widely than otherwise permitted in the foregoing subparagraph (ii). The Parties shall cooperate with each other in developing procedures for requesting and obtaining prior written consent for such wider dissemination, and each Party shall grant such approval to the extent permitted by its national policies, regulations and laws.
- (iv) If one of the Parties becomes aware that it will be, or may reasonably be expected to become, unable to meet the non-dissemination provisions of this Article, it shall immediately inform the other Party. The Parties shall thereafter consult to define an appropriate course of action.

4. Information arising from seminars and other meetings arranged under this Implementing Arrangement shall be treated by the Parties according to the principles specified in this Article; provided, however, no proprietary information orally communicated shall be subject to the limited disclosure requirements of this Implementing Arrangement unless the individual communicating such information places the recipient on notice as to the proprietary character of the information communicated.

ARTICLE VII

Disclaimer

Information transmitted by one Party to the other Party under this Implementing Arrangement shall be accurate to the best knowledge and belief of the transmitting Party, but the transmitting Party does not warrant the suitability of the information transmitted for any particular use or application by the receiving Party or by any third Party. Information developed jointly by the Parties shall be accurate to the best knowledge and belief of both Parties. Neither Party warrants the accuracy of the jointly developed information or its suitability for any particular use or application by either Party or by any third Party.

ARTICLE VIII

Patents

1. With respect to any invention or discovery made or

conceived in the course of or under this Implementing Arrangement:

a. If made or conceived by personnel of one party (the Assigning Party) or its contractors while assigned to the other Party (Receiving Party) or its contractors in connection with exchanges of scientists, engineers, or other specialists, the Receiving Party shall acquire all right, title, and interest in and to any such invention or discovery in its own country and in third countries, subject to a nonexclusive, irrevocable, royalty-free license to the Assigning Party, its Government, and its nationals designated by it, in all such countries.

b. The Assigning Party shall acquire all right, title, and interest in and to any such invention or discovery in its own country, subject to a nonexclusive, irrevocable, royalty-free license to the Receiving Party, its Government, and its nationals designated by it, in such country.

c. If made or conceived by a Party or its contractors as a direct result of employing information which has been communicated to it under this Implementing Arrangement by another Party or its contractors or communicated during seminars or other joint meetings, the Party making the invention shall acquire all right, title, and interest in and to such inventions or discoveries in all countries, subject to a grant to the other Party, its Government, and its nationals designated by it a royalty-free, nonexclusive, irrevocable license, in all countries.

d. With regard to other specific forms of cooperation, the Parties shall provide for the appropriate distribution of rights to inventions or discoveries resulting from such cooperation, in accordance with paragraph 2 of Article III of this Implementing Arrangement.

2. The provisions of the preceding paragraph 1 of this Article shall apply mutatis mutandis to the protection of utility model and of design.

3. Each Party shall, without prejudice to any rights of inventors or authors under its national laws, take all necessary steps to provide the cooperation from its inventors or authors required to carry out the provisions of this Article and Articles VI and IX. Each Party shall assume the responsibility to pay awards and compensation required to be paid to its own nationals according to its own laws.

ARTICLE IX

Copyrights

Copyrights of the Parties or of cooperating organizations and persons shall be accorded treatment consistent with internationally recognized standards of protection. As to copyrights on materials within the scope of paragraph 1 of Article VI owned or controlled by a Party, that Party shall make efforts to grant to the other Party a license to reproduce copyrighted materials.

ARTICLE X

Exchange of Personnel

With respect to the exchange of staff under the HTGR Collaboration:

1. Each Party may, at its own expense, observe test activities and analytical work of the other Party. Such observation may be exercised by short-term visits subject to the prior approval of the receiving Party on each occasion.
2. In addition, each Party may assign staff to the other Party. Such assignment of staff shall be subject to the prior written agreement of the receiving Party on each occasion.
3. Whenever an assignment of staff is contemplated under the HTGR Collaboration, each Party shall ensure that qualified staff are selected for assignment to the other Party.
4. Each such assignment of staff shall be the subject of a separate assignment agreement between the Parties.
5. Each Party shall be responsible for the salaries, insurance, and allowances to be paid to its staff.
6. The sending Party shall pay for the travel and living expenses of its staff while on assignment to the receiving Party unless otherwise agreed in writing.
7. The receiving Party shall arrange for adequate accommodations for the assigned staff and their families on a mutually agreeable reciprocal basis.
8. The receiving Party shall provide all necessary assistance to the assigned staff and their families as regards administrative formalities (travel arrangements, etc.)
9. The staff of each Party shall conform to the general and

special rules of work and safety regulations in force at the host establishment, or as agreed in separate assignment agreements.

10. The Party proposing an assignment shall notify the receiving Party of the name of the persons proposed for the assignment and shall provide such information respecting any of the said persons as may be required by the receiving Party.

ARTICLE XI

Equipment

Both Parties agree that in the event equipment, components, instruments, materials, or necessary spare parts (hereinafter referred to as "the equipment, etc.") are to be exchanged, loaned, or supplied by one Party to the other, the following provisions shall apply covering the shipment and use of the equipment, etc.

1. The sending Party shall supply as soon as possible a detailed list of the equipment, etc. to be provided together with the relevant specifications and technical and informational documentation.
2. The equipment, etc. supplied by the sending Party shall remain its property and shall be returned to the sending Party upon completion of the mutually agreed upon activity unless otherwise agreed.
3. The equipment, etc. shall be brought into operation at the host establishment in accordance with test plans mutually agreed upon between the Parties.
4. The receiving Party shall provide the necessary premises for the equipment, etc. and shall provide for electrical power, water, gas, etc., in accordance with technical requirements which shall be mutually agreed.

ARTICLE XII

Applicable Laws

Cooperation under this Implementing Arrangement shall be in accordance with the laws and regulations of the respective countries of the Parties.

ARTICLE XIII

Liability

Compensation for damages incurred during the implementation of this Agreement shall be in accordance with the applicable laws of the countries of the Parties.

ARTICLE XIV

Additional Provisions

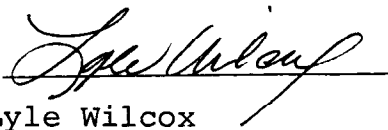
1. This Implementing Arrangement pursuant to the exchange of notes of September 27, 1985 between the Embassy of the United States of America and the Ministry of Foreign Affairs of Japan shall enter into force upon signature and shall continue in force for five years. The Implementing Arrangement may be amended or extended by written agreement of each of the Parties.
2. All activities initiated but not completed at the expiration of this Implementing Arrangement may be continued until their completion as if this Implementing Arrangement were still in effect.
3. This Implementing Arrangement may be terminated at any time at the discretion of either Party upon 6 months advance notification in writing by the Party seeking to terminate the Implementing Arrangement. Such termination shall be without prejudice to the rights that may have accrued under this Implementing Arrangement to either Party up to the date of the termination.

Done at Tokyo this 27th
day of September 1985.

FOR THE UNITED STATES
DEPARTMENT OF ENERGY

FOR THE JAPAN ATOMIC ENERGY
RESEARCH INSTITUTE

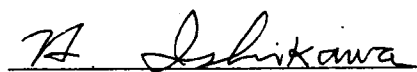
SIGNATURE



NAME Dr. Lyle Wilcox

TITLE Deputy Assistant Secretary
for Reactor Systems,
Development and Technology

SIGNATURE



NAME Hiroshi Ishikawa

TITLE Vice President

**AGREEMENT
AMENDING AND EXTENDING
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**

WHEREAS the Department of Energy of the United States of America (hereinafter referred to as 'DOE') and the Japan Atomic Energy Research Institute (hereinafter referred to as 'JAERI'), are cooperating on research and development in the area of High Temperature Gas-cooled Reactors (hereinafter referred to as "HTGR") pursuant 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, signed September 27, 1985 (hereinafter referred to as 'the Implementing Arrangement' done pursuant to an exchange of notes of the same date between the Embassy of the United States and the Ministry of Foreign Affairs of Japan;

WHEREAS the cooperation between DOE and JAERI (hereinafter referred to as 'Parties') on research and development in the area of HTGR has proceeded to the satisfaction of both Parties;

WHEREAS the Paragraph 1 of Article XIV of the Implementing Arrangement provides for extension of the Implementing Arrangement;

WHEREAS the Parties desire to extend the Implementing Arrangement for an additional term of five years;

NOW THEREFORE, the Parties agreed to amend and extend the Implementing Arrangement as follows:

ARTICLE I

ARTICLE VI of the Implementing Arrangement shall be replaced by the following:

ARTICLE VI
Intellectual Property Rights

1. Scientific and technological information of a non-proprietary nature arising from the cooperative activities under the Implementing Arrangement may be made available to the public by either Party through customary channels and in accordance with the normal procedures of the Parties.

2. The Parties shall ensure the adequate and effective protection and equitable distribution of intellectual property rights and other rights of a proprietary nature created or introduced in the course of the cooperative activities under the Implementing Arrangement, as provided in the Annex, and in accordance with the laws and regulations of the respective countries and with the Implementing Arrangement. The Parties shall consult for this purpose as necessary. The Annex, which constitutes an integral part of this agreement, is applicable to any cooperative activities under the Implementing Arrangement, except as otherwise specifically agreed by the Parties, in individual agreements or otherwise. Such agreements may also elaborate the provisions of the Annex.

3. Issues that arise between the Parties in a cooperative activity regarding the treatment of information, inventions, discoveries, writings, and any other forms of intellectual property, under this Article or the Annex shall be settled by the Parties. Any such issues which cannot be resolved by the Parties may be referred to the Steering Committee.

4. The Parties support the widest possible dissemination of the information created in the course of the cooperative activities under the Implementing Arrangement, unless otherwise stipulated in this Article or the Annex. In furtherance of the principle of maintaining an open basic research environment, the Parties confirm that no information or equipment classified for reasons of national security shall be utilized in the cooperative activities under the Implementing Arrangement.

5. The transfer of export-controlled information or equipment between the countries in the course of the cooperative activities under the Implementing Arrangement shall be done only subject to the applicable laws and regulations of each country, including those relating to export control. Each Party shall take all necessary and appropriate measures, subject to applicable national laws and regulations, to prevent the diversion to unauthorized destinations of export-controlled information and equipment provided or produced in the course of the cooperative activities under the Implementing Arrangement.

ARTICLE II

(1) ARTICLES VIII and IX of the Implementing Arrangement shall be deleted.

(2) ARTICLES X, XI, XII, XIII and XIV of the Implementing Arrangement shall be renumbered as ARTICLES VIII, IX, X, XI and XII, respectively.

ARTICLE III

The Implementing Arrangement, as amended herein, shall be extended for a period of five years, with effect from September 27, 1990.

IN WITNESS WHEREOF, the Parties hereto have executed this Amendment.

FOR THE UNITED STATES DEPARTMENT
OF ENERGY

SIGNATURE



NAME EC Brodin

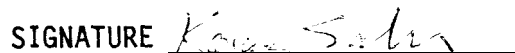
TITLE Principal Deputy Assistant
NE

DATE October 7, 1992

AT: Tokyo, JAPAN

FOR THE JAPAN ATOMIC ENERGY
RESEARCH INSTITUTE

SIGNATURE



NAME Kazuo Sato

TITLE Executive Director

DATE October 7, 1992

ANNEX

PROTECTION AND DISTRIBUTION OF INTELLECTUAL PROPERTY RIGHTS AND OTHER RIGHTS OF A PROPRIETARY NATURE

1. Business-Confidential Information

- A. For the purpose of this Annex, "business-confidential information" means any know-how, technical data, or technical, commercial or financial information that meets all of the following conditions:**
- i) It is of a type customarily held in confidence for commercial reasons;**
 - ii) It is not generally known or publicly available from other sources;**
 - iii) It has not been previously made available by the owner to others without an obligation concerning its confidentiality; and**
 - iv) It is not already in the possession of the recipient without an obligation concerning its confidentiality.**
- B. Any business-confidential information shall be furnished or, when created in the course of the cooperative activities under the Implementing Arrangement, transferred only by mutual written agreement of the Parties and shall be given full protection in accordance with the laws and regulations of their respective countries.**
- C. Any business-confidential information shall be appropriately identified before it is furnished in the course of the cooperative activities under the Implementing Arrangement or, unless otherwise provided in the agreements, immediately upon being created. Responsibility for identifying such information shall fall on the Party which furnishes it or asserts that it is to be protected. Unidentified information shall be assumed not to be information to be protected, except that a Party may notify the other Party in writing, within a reasonable period of time after furnishing or transferring such information, that such information is business-confidential information under the laws and regulations of its country. Such information shall thereafter be protected in accordance with Subparagraph B. above.**

2. Ownership of Intellectual Property Rights

Between each Party and nationals of its country, the ownership of intellectual property rights shall be determined in accordance with its national laws, regulations and practices.

3. Inventions

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

B. As to an Invention, the Parties shall take appropriate steps, in accordance with national laws and regulations of the respective countries, with a view to realizing the following:

i) If an Invention is made as a result of a cooperative activity under the Implementing Arrangement that involves only the transfer or exchange of information between the Parties, such as by joint meetings, seminars, or the exchange of technical reports or papers, unless otherwise provided in an applicable agreement:

a) the party whose personnel make the Invention (hereinafter referred to as "the Inventing Party") or the personnel who make the Invention (hereinafter referred to as "the Inventor") have the right to obtain all rights and interests in the Invention in all countries, and

b) in any country where the Inventing Party or the Inventor decides not to obtain such rights and interests, the other Party has the right to do so.

ii) If the Invention is made by an Inventor of a Party ("the Assigning Party") while assigned to another Party ("the Receiving Party") in the course of programs of a cooperative activity that involve only the visit or exchange of scientists and engineers, and:

a) in the case where the Receiving Party is expected to make a major and substantial contribution to the programs of the cooperative activity:

i. the Receiving Party has the right to obtain all rights and interests in the Invention in all countries, and

ii. in any country where the Receiving Party decides not to obtain such rights and interests, the Assigning Party or the Inventor has the right to do so,

b) in the case where the provision in Subparagraph a) above is not satisfied:

i. the Receiving Party has the right to obtain all rights and interests in the Invention in its own country and in third countries,

ii. the Assigning Party or the Inventor has the right to obtain all rights and interests in the Invention in its own country, and

iii. in any country where the Receiving Party decides not to obtain such rights and interests, the Assigning Party or the Inventor has the right to do so.

iii) Specific agreements involving other forms of the cooperative activities, such as joint research projects with an agreed research work scope, shall provide for the mutually agreed upon disposition, on an equitable basis, of rights to the Invention made as a result of such activities.

iv) The Inventing Party shall disclose promptly the Invention to the other Party and furnish any documentation or information necessary to enable the other Party to establish rights to which it may be entitled. The Inventing Party may ask the other Party in writing to delay publication or public disclosure of such documentation or information for the purpose of protecting its rights or the rights of the Inventor related to the invention. Unless otherwise agreed in writing, such restrictions shall not exceed a period of six months from the date of communication of such documentation or information.

4. Copyrights

Disposition of rights to copyright-protected works created in the course of the cooperative activities under the Implementing Arrangement shall be determined by the Steering Committee. The Parties shall take appropriate steps to secure copyright to works created in the course of the cooperative activities under the Implementing Arrangement in accordance with the national laws and regulations of the respective countries.

5. Rights to Semiconductor Chip Layout Designs

Disposition of rights to semiconductor chip layout designs created in the course of the cooperative activities under the Implementing Arrangement shall be determined by the Steering Committee. The Parties shall take appropriate steps to secure rights to semiconductor chip layout designs created in the course of the cooperative activities under the Implementing Arrangement in accordance with the national laws and regulations of the respective countries.

6. Other Forms of Intellectual Property

For those other forms of intellectual property created in the course of the cooperative activities under the Implementing Arrangement which are protected under the laws of either country, disposition of rights shall be determined on an equitable basis, in accordance with the laws and regulations of the respective countries.

7. Cooperation

Each Party shall take all necessary and appropriate steps, in accordance with the laws and regulations of its country, to provide for the cooperation of its authors and inventors which are required to carry out the provisions of this Annex. Each Party assumes the sole responsibility for any award or compensation that may be due its personnel in accordance with the laws and regulations of its country, provided, however, that this Annex creates no entitlement to any such award or compensation.