

**IMPLEMENTING ARRANGEMENT
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE AGENCY OF NATURAL RESOURCES AND ENERGY OF JAPAN
CONCERNING COOPERATION IN
THE JOINT NUCLEAR ENERGY RESEARCH INITIATIVE**

The Department of Energy of the United States of America (hereinafter referred to as "DOE") and the Agency of Natural Resources and Energy of Japan (hereinafter referred to as "ANRE"), collectively hereinafter referred to as the "Parties";

Noting the Exchange of Notes dated April 21, 2004 between the Government of the United States of America and the Government of Japan concerning cooperation in the field of research and development of innovative nuclear energy technologies (hereinafter referred to as the "Exchange of Notes");

Noting that the Exchange of Notes provides that the cooperation between DOE and ANRE in the field of research and development of innovative nuclear energy technologies (hereinafter referred to as the "Cooperation") shall be deemed appropriate as cooperation between the Parties' two Governments under the Agreement for Cooperation between the Government of the United States of America and the Government of Japan Concerning Peaceful Uses of Nuclear Energy, signed November 4, 1987;

Sharing an interest in fostering advanced nuclear engineering and pursuing scientific research and development in the nuclear field;

Seeking to promote and maintain nuclear science and engineering infrastructure in the Parties' respective countries to sustain the capabilities necessary for the development and use of nuclear energy;

Believing that cooperation based on equitable sharing of their respective research and development data, technology and experience in the nuclear energy field would be of mutual benefit; and

Recognizing the contribution such research and development in the field of energy applications can make to develop safe, cost-effective, proliferation-resistant, and sustainable nuclear technologies to meet future global energy needs;

Hereby agree as follows:

Article 1

Purpose

1. The objective of this Implementing Arrangement is to set forth detailed terms and conditions and to establish a framework for the Cooperation between the Parties for research and development of innovative nuclear energy technologies. The Parties shall conduct the Cooperation on the basis of mutual benefit, equality and reciprocity.
2. This Implementing Arrangement is subject to and shall be governed by the Exchange of Notes. In the event of any conflict between the provisions of this Implementing Arrangement and the Exchange of Notes, the latter shall prevail.

Article 2

Areas of Cooperation

The areas of Cooperation may include, but are not limited to, the following:

1. Innovative light water reactor technologies;
2. Innovative processing technologies of oxide fuel for light water reactors;
3. Innovative fuel technologies using solvent extraction;
4. Innovative radioactive waste management technologies; and
5. Other areas as the Parties may agree to in writing

Article 3

Forms of Cooperation

The forms of Cooperation may include, but are not limited to, the following:

1. Exchange of scientific and engineering information, and results and methods of R&D;
2. Exchange of materials, instruments, components and equipment for testing;
3. Exchange of personnel for participation in agreed research, development, demonstration, analysis, design, experimental, and training activities;
4. Joint projects in the form of experiments, tests, design analysis, or other technical collaborative activity, which may be undertaken either by the Parties, or in connection with other persons in a manner agreed to by the Coordinators (Article 4);
5. Joint funding of specific projects which may be undertaken either by the Parties, or in connection with other persons in a manner agreed to by the Coordinators (Article 4); and
6. Other forms of cooperation as the Parties may agree to in writing.

Article 4

Management

1. Each Party shall designate a Coordinator to supervise the implementation of this Implementing Arrangement. As mutually agreed, the Coordinators shall meet periodically to evaluate all aspects of the Cooperation. These meetings shall be held alternately in the United States and Japan, unless otherwise agreed.
2. The Coordinators may establish separate subcommittees in any of the areas or forms of Cooperation to facilitate implementation of projects undertaken under this Implementing Arrangement. The Coordinators shall give appropriate guidance and directions to the subcommittees and the project managers responsible for activities undertaken under this Implementing Arrangement.

Article 5
Additional Organizations

The Parties may encourage the participation of researchers or organizations in the joint research and development under this Implementing Arrangement, on such conditions, consistent with the terms of this Implementing Arrangement, as the Parties shall agree: such organizations may include government agencies, universities, science and research centers, private sector firms and other institutions of the Parties, and institutions of third parties or international organizations.

Article 6
Annexes

Joint research and development under this Implementing Arrangement may be undertaken by the Parties, by laboratories or contractors of the Parties, or by others in the public and private sectors. Each joint research and development that may involve the sharing of costs or that may give rise to intellectual property shall be described in writing in a project Annex to this Implementing Arrangement. Such project Annexes shall contain detailed procedures for the implementation of the joint research and development, including but not limited to technical scope, management, cost sharing, and the protection and distribution of intellectual property, as appropriate. Each project Annex shall be subject to and shall refer to this Implementing Arrangement.

Article 7
Intellectual Property Rights

Details and procedures for the protection and distribution of intellectual property rights and other rights of a proprietary nature created or introduced in the course of the Cooperation under this Implementing Arrangement are set forth in the Intellectual Property Annex, which is an integral part of this Implementing Arrangement. The Intellectual Property Annex is applicable to any joint research and development under this Implementing Arrangement, except as otherwise specifically agreed by the parties to the joint research and development concerned, in individual project Annexes, as authorized in Article 6 herein.

Article 8
Exchange of Personnel

The following provisions shall apply concerning exchange of personnel under this Implementing Arrangement when it is conducted between the Parties themselves or their contractors:

1. Whenever an exchange of personnel is contemplated, each Party shall ensure the selection of personnel with the skills and competence necessary to conduct the activities planned under this Implementing Arrangement. Each such exchange of personnel shall be agreed in advance by an exchange of letters between the Parties, referencing this Implementing Arrangement and pertinent intellectual property provisions.
2. Each Party shall be responsible for the salaries, insurance, and allowances to be paid to its staff or contractors.
3. Each Party shall pay for the travel and living expenses of its staff or contractors staying at the establishment of the host Party, unless otherwise agreed.
4. Each Party shall help locate adequate accommodations for the other Party's staff or contractors (and their families) on a mutually agreeable, reciprocal basis.
5. Each Party shall provide all necessary assistance to the staff or contractors of the other Party as regards administrative formalities, such as assistance in making travel arrangements.
6. The staff and contractors of each Party shall conform to the general rules of work and safety regulations in force at the host establishment.

Article 9
Exchange of Equipment

The following provisions shall apply concerning exchange of equipment under this Implementing Arrangement when it is conducted between the Parties themselves or their contractors:

1. By mutual arrangement, a Party may provide equipment to be utilized in a joint activity. In such cases, the sending Party shall supply, as soon as possible, a detailed list of the equipment to be provided, together with the relevant specifications and appropriate technical documentation related to the use, maintenance, and repair of the equipment.
2. Title to the equipment and necessary spare parts supplied for use in joint activities shall remain in the sending Party, and the property shall be returned to the sending Party upon completion of the joint activity, unless otherwise agreed.
3. Equipment provided under this Implementing Arrangement shall be brought into operation at the host establishment only by arrangement of the Parties.
4. The host establishment shall provide the necessary premises for the equipment, shall provide for utilities such as electric power, water, and gas, and normally shall provide materials to be tested, in accordance with agreed technical requirements.
5. Responsibilities for expenses, safekeeping and insurance during the transport of equipment from the original location in the country of the sending Party to the place of entry in the country of the receiving Party shall rest with the sending Party. If the sending Party elects to have the equipment returned, it shall be responsible for expenses, safekeeping, and insurance during the transport of the equipment from the original port of entry in the country of the receiving Party to the final destination in the country of the sending Party.
6. Responsibilities for expenses, safekeeping and insurance during the transport of equipment from the original location in the country of the receiving Party to the final destination in the country of the receiving Party shall rest with the receiving Party. If the sending Party elects to have the equipment returned, the receiving Party shall be responsible for expenses, safekeeping, and insurance during the transport of the equipment from the final destination in the country of the receiving Party to the original point of entry in the country of the receiving Party.
7. Equipment provided under this Implementing Arrangement for use in joint activities shall be considered to be scientific, not having a commercial character, and each Party shall make its best effort to obtain duty free entry.

Article 10
Samples and Materials

Unless otherwise agreed in writing, the following provisions shall apply to the transportation and use of samples and materials provided by one Party or its contractors to the other Party or its contractors under this Implementing Arrangement:

1. All samples and materials provided by the sending Party to the receiving Party shall remain the property of the sending Party, and shall be returned to the sending Party upon completion of the mutually agreed upon activity, unless otherwise agreed.
2. Where one Party requests that a sample or material be provided by the other Party, the Party making the request shall bear all costs and expenses associated with the transportation of the sample or material from the location of the sending Party to its final destination.
3. Each Party shall promptly disclose to the other Party all information arising from the examination or testing of samples or materials exchanged under this Implementing Arrangement. The Parties agree that business-confidential information (as defined in the Intellectual Property Annex to this Implementing Arrangement), which was developed prior to or outside the scope of this Implementing Arrangement, shall remain business-confidential even though it is contained in the results of the examination or testing of such samples or materials. Such information shall be identified as business-confidential by the Party asserting its business-confidential nature as soon as possible after disclosure of all information arising from the examination or testing is made to such Party and the other Party shall be immediately advised of that identification. All information identified as business-confidential shall be controlled as provided in the Intellectual Property Annex to this Implementing Arrangement.
4. It is further understood and agreed that a Party providing samples or materials to the other Party may also provide a partial or complete list of the types of information arising from the examination or testing of such samples or materials, and should identify any such information which is business-confidential (as defined in the Intellectual Property Annex to this Implementing Arrangement). All such business-confidential information is to be controlled as set out in the said Annex.

Article 11
Transfer of Information and Equipment

Unless otherwise agreed in writing, the following provisions shall apply to the transfer of information and equipment under this Implementing Arrangement when it is conducted between the Parties themselves or their contractors:

1. All information or equipment transmitted by one Party to the other Party under this Implementing Arrangement and any related project Annex shall be appropriate and accurate to the best knowledge and belief of the transmitting Party, but the transmitting Party does not warrant the suitability of the information or equipment transmitted for any particular use or application by the receiving Party or any third party. Information or equipment developed jointly by the Parties shall be appropriate and accurate to the best knowledge and belief of both Parties. Neither Party warrants the accuracy of the jointly-developed information or the appropriateness of jointly-developed equipment nor its suitability for any particular use or application by either Party or by any third party.
2. The Parties may exchange, as agreed on a mutually beneficial basis, scientific and technical information, documents and results of research and development of work carried out under this Implementing Arrangement. Such information shall be limited to that which the Parties have the right to disclose, either in their possession or available to them, relating to the types of cooperation described in Article 2.
3. Seminar proceedings and reports of joint activities carried out under this Implementing Arrangement shall be made available for publication as joint publications, as agreed by the Parties.
4. The Parties agree that information developed and exchanged under this Implementing Arrangement should be given wide distribution. Except as provided in the Intellectual Property Annex to this Implementing Arrangement and Article 11.5, such information may be made available to the public by either Party through customary channels and in accordance with normal procedures of the Parties.
5. The transfer of unclassified export-controlled information and equipment between the Parties under this Implementing Arrangement shall be treated in accordance with the relevant laws and regulations of each Party to prevent the unauthorized transfer or retransfer

of such information and equipment provided or produced under this Implementing Arrangement. If either Party deems necessary, detailed provisions for the prevention of unauthorized transfer or retransfer of such information or equipment shall be incorporated into the project Annexes under this Implementing Arrangement.

Article 12

General Provisions

1. Unless otherwise agreed, all costs resulting from Cooperation carried out under this Implementing Arrangement shall be the responsibility of the Party that incurs them.
2. Each Party shall use its best efforts to obtain all required permits and licenses as necessary for the implementation of this Implementing Arrangement.
3. The provisions of this Implementing Arrangement shall be implemented subject to the availability of appropriated funds and subject to the applicable laws and regulations in force in each Party's country.

Article 13

Duration, Amendment and Termination

1. So long as the Exchange of Notes remains in force, this Implementing Arrangement shall enter into force upon the date of the latter signature, remain in force (subject to Article 13.3) for 5 years, and be automatically renewed for further 5-year periods, unless either Party notifies the other in writing 3 months prior to the expiration of the first 5-year period, or a succeeding 5-year period, of its intent to terminate the Implementing Arrangement.
2. This Implementing Arrangement may be amended by written agreement of the Parties.
3. This Implementing Arrangement may be terminated upon 3 months advance notification in writing by either Party to the other Party.

4. All ongoing joint efforts and experiments not completed at the expiration or termination of this Implementing Arrangement may be continued until their completion under the terms of this Implementing Arrangement.

IN WITNESS WHEREOF, the undersigned, duly authorized, have signed this Implementing Arrangement.

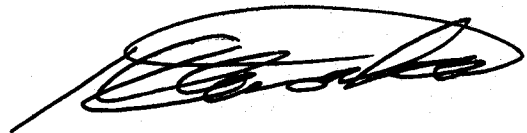
DONE in duplicate, in the English language.

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



Date: ~~MAY~~ 26, 2004

FOR THE AGENCY OF NATURAL
RESOURCES AND ENERGY OF
JAPAN:



Date: May 20, 2004

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

1. Definition

For the purpose of this Annex, the term "the cooperative activity" means the activity under the Cooperation as provided for in paragraph 1 of the Exchange of Notes.

2. 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 will be furnished or, when created in the course of the cooperative activities, transferred only by mutual written agreement of the parties to the cooperative activity concerned and will be given full protection in accordance with the laws and regulations of their respective countries.

C. Any business-confidential information will be appropriately identified before it is furnished in the course of the cooperative

activities or, unless otherwise provided in the project Annexes, immediately upon being created. Responsibility for identifying such information will fall on the party which furnishes it or asserts that it is to be protected. Unidentified information will be assumed not to be information to be protected, except that a party to the cooperative activity 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 will thereafter be protected in accordance with subparagraph B above.

3. Ownership of Intellectual Property Rights

Between the relevant governmental authorities and nationals of its country, the ownership of intellectual property rights will be determined in accordance with its national laws, regulations and practices.

4. Inventions

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

B. As to an Invention, the parties to the cooperative activity concerned will take appropriate steps, in accordance with the 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 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 project Annex:

- (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) (a) 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, the Inventor of the Assigning Party shall receive the rights to the said Invention and any available benefits therefrom including awards, bonuses or royalties, in accordance with terms and conditions of a standard arrangement between the Receiving Party and the Inventor except if otherwise provided in another arrangement between them.
- (b) Upon request of the Assigning Party, the Receiving Party will promptly provide to the Assigning Party information on the terms and conditions of a standard arrangement of the Receiving Party.
- (iii) (a) Rights to an Invention made as a result of joint research and development and allocation of benefits derived therefrom shall be agreed between the parties prior to the commencement of the joint research and development and shall be contained in the arrangements or contracts setting forth the terms and conditions of the joint research and development. These rights shall be allocated taking into account the relative contributions of the parties to the creation of the Invention, the benefits of licensing by territory or for fields of use, requirements imposed by the parties' domestic laws and other factors deemed appropriate.
- (b) If the parties cannot reach an agreement on rights to the Invention and allocation of benefits derived therefrom

within nine months from the time they started negotiation, the matter may be resolved through consultations in accordance with paragraph 5 of the Exchange of Notes. If the relevant government authorities do not make any recommendation, or the parties do not accept the recommendations, the joint research and development shall not be initiated.

(iv) The Inventing Party will 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 will not exceed a period of six months from the date of communication of such documentation or information.

5. Copyrights

A. Disposition of rights to copyrighted works created in the course of the cooperative activities will be determined in the relevant project Annexes.

B. Each party to the cooperative activities will use its best efforts to obtain for the other party a non-exclusive, irrevocable, royalty-free license in all countries where copyright protection is available, to translate, reproduce, and publicly distribute scientific and technical journal articles, reports and books not containing any proprietary information, created in the course of such cooperative activities. All publicly distributed copies of a copyrighted work prepared under the cooperative activities will indicate the name of the author of the work unless the author explicitly declines to be named. When scientific and technical journal articles, reports and books not containing any proprietary information, created in the course of such cooperative activities

are translated and publicly distributed, the parties concerned shall be given the opportunity to review the translation prior to its public distribution.

6. Rights to Semiconductor Chip Layout Designs

Disposition of rights to semiconductor chip layout designs created in the course of the cooperative activities will be determined in the relevant project Annexes. The parties to the cooperative activities concerned will take appropriate steps to secure rights to semiconductor chip layout designs created in the course of the cooperative activities in accordance with the national laws and regulations of the respective countries.

7. Other Forms of Intellectual Property

A. In the event that other forms of intellectual property are created in the course of the cooperative activities and they are not protected by the laws of one party's country, disposition of rights in that intellectual property will be determined, on an equitable basis, as described in subparagraph B below and in accordance with the laws and regulations of the respective countries.

B. The parties to the cooperative activities will, at the request of either party, promptly consult with each other on the disposition of rights in the intellectual property referred to in subparagraph A above. The cooperative activities in question shall be suspended during the consultation unless otherwise agreed by the parties. If no agreement on the disposition of said rights can be reached within a three-month period from the date of the request for consultation, the cooperative activity in question may be terminated by either party with notice to the other party. In this case, each party shall also notify its respective authority of such termination. The matter may be resolved through consultations in accordance with paragraph 5 of the Exchange of Notes.

8. Cooperation

Each party to the cooperative activity concerned will 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 to the cooperative activity concerned 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.