

AGREEMENT

BETWEEN

THE UNITED STATES DEPARTMENT OF ENERGY

AND

THE POWER REACTOR AND NUCLEAR FUEL DEVELOPMENT CORPORATION

OF JAPAN

IN THE AREA OF RADIOACTIVE WASTE MANAGEMENT

Whereas the Department of Energy of the United States of America (DOE) and the Power Reactor and Nuclear Fuel Development Corporation of Japan (PNC), hereinafter referred to as the Parties, wish to enter into an agreement for cooperation in the area of radioactive waste management;

Whereas a successful precedent for cooperation has been established under the Waste Management Working Group under the Agreement Between the United States Department of Energy and the Power Reactor and Nuclear Fuel Development Corporation of Japan in the Field of Liquid Metal-Cooled Fast Breeder Reactors of January 31, 1979;

Whereas DOE and PNC concluded an Memorandum of Agreement for the Collaborative Testing of a Radioactive Liquid-Fed Ceramic Melter on March 29, 1985 to demonstrate the vitrification of High Level Waste for civilian applications; and

Whereas the waste management programs of DOE and PNC share common interests and objectives in the safe and effective management of radioactive wastes from nuclear power systems;

Whereas the conduct of research, development and demonstration programs in radioactive waste management requires long periods of time for evaluation and validation;

DOE and PNC agree as follows:

ARTICLE I

The objective of this cooperation is to study mutually agreed topics associated with, and to develop cooperatively and jointly technology and techniques necessary for, the safe management of radioactive wastes on the basis of mutual benefit, equality and reciprocity.

## ARTICLE II

For such waste forms as High-Level Waste (HLW) (including Spent Fuel) and Transuranic Waste (TRU), the areas of cooperation covered by this Agreement may include:

1. categorization of, and methods of determination of, waste sorting techniques and development and testing of radiological-assay instruments;
2. waste-form characterization including standardization of tests to predict glass performance during disposal;
3. development of new waste forms;
4. development and testing of waste treatment processes;
5. preparation and packaging of radioactive wastes, including container and cask design and handling techniques;
6. transportation requirements;
7. design, testing and assessment of surface and subsurface systems for waste storage;
8. disposal and isolation of radioactive wastes, for example, in geologic formations;
9. decontamination and decommissioning of facilities, including treatment of wastes resulting therefrom;
10. waste-management facility operations;
11. environmental and safety considerations;
12. public acceptance issues; and
13. other areas as may be mutually agreed in writing.

## ARTICLE III

1. The Cooperation may be implemented by any of the following means:

- a. exchange of information and data on scientific and technical activities, developments, practices, methods and results in the areas listed in Article II in accordance with Article VI;
- b. exchange of scientists, engineers and other specialists for agreed periods of time in order to participate in experiments, analysis, design and other research and development activities at existing and new research centers,

laboratories, engineering offices and other facilities and enterprises of each of the Parties or its contractors in accordance with Article X;

- c. organization of, and participation in, seminars and other meetings on specific agreed topics in the areas listed in Article II;
- d. exchange and provision of samples, materials, instruments and components for experiments, testing and evaluation;
- e. execution of joint studies, projects or experiments including their joint design, construction and operation; and
- f. other areas as may be mutually agreed in writing.

2. When necessary, any specific details to implement activities listed in subparagraphs (a) through (c) of 1 above may be determined through consultations or auxiliary arrangements between the Parties or as Annexes to this Agreement. Specific terms and conditions necessary to implement activities listed in subparagraphs (d), (e) and (f) above shall be determined through written agreement between the Parties and shall contain:

- a. specific details, procedures and financing provisions for individual cooperative activities;
- b. management of the concerned activity to a single organization or operating agent; and
- c. detailed provisions on dissemination of information and treatment of intellectual property.

#### ARTICLE IV

1. To supervise the execution of this Agreement, the Parties shall each name a Principal Coordinator. As deemed necessary, the Principal Coordinators shall meet to evaluate the status of cooperation under this Agreement. This evaluation shall include a comprehensive review of each Party's radioactive waste management program status and plans, an assessment of the balance and mutual benefit of exchanges among the various areas of cooperation listed in Article II, and a consideration of measures required to correct any imbalance. These meetings shall be held alternately in Japan and the United States.

2. The Principal Coordinators shall review plans for future cooperation and act on any new proposals for cooperation consistent with Article I.

3. For day-to-day implementation of this Agreement, the Principal Coordinators shall each designate Technical Coordinators to oversee the cooperation under this Agreement.

The Technical Coordinators shall agree on specific programs of cooperation in their respective areas as described in Article II within policy guidelines set by the Principal Coordinators. The Technical Coordinator or his designee shall be responsible for the working contacts between the Parties in his respective area of cooperation.

#### ARTICLE V

Except when otherwise specifically agreed at the time in writing, all costs resulting from cooperation under this Agreement shall be borne by the Party that incurs them.

#### ARTICLE VI

1. The Parties shall support the widest possible dissemination of information provided or exchanged under this Agreement, 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 Agreement:

- (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 Agreement.
- (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 Agreement 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 Agreement between the United States Department of Energy and the Power Reactor and Nuclear Fuel Development Corporation of Japan of \_\_\_\_\_ 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 Agreement may be disseminated by the receiving Party to:

- a) persons within or employed by the receiving Party and to concerned Government departments and Government agencies of the receiving Party; and
- b) prime contractors or subcontractors of the receiving Party located within the geographical limits of the Party's nations 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 Agreement, the receiving Party may disseminate such proprietary information more widely than otherwise permitted in subparagraph 3(i) above. The Parties shall cooperate with each other in developing procedures of requesting and obtaining the 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.

4. 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.

5. Information arising from seminars and other meetings arranged under this Agreement and information arising from the attachments of staff 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 Agreement unless the individual communicating such information places the recipient on notice as to the proprietary character of the information communicated.

#### ARTICLE VII

Information transmitted by one Party to the other Party under this Agreement 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

1. With respect to any invention or discovery made or conceived in the course of or under this Agreement:

- 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:

- (1) The Receiving Party shall acquire all rights, 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.

(2) The Assigning Party shall acquire all rights, 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 national designated by it

b. 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 Agreement by another Party or its contractors or communicated during seminars or other joint meetings, the Party making the invention shall acquire all rights, 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 of a royalty-free, nonexclusive, irrevocable license in all countries.

c. 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 Agreement.

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 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

With respect to the exchange of staff under this Agreement:

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 or by the assignment of staff, subject to the prior written agreement of the receiving Party on each occasion.
2. Whenever an exchange of staff is contemplated under this Agreement each Party shall ensure that qualified staff are selected for assignment to the other Party.
  3. Each such assignment of staff shall be the subject of a separate assignment agreement between the Parties.
  4. Each Party shall be responsible for the salaries, insurance and allowances to be paid to its staff.
  5. The sending Party shall pay for the travel and living expenses of its staff while on assignment to the receiving Party unless otherwise agreed.
  6. The receiving Party shall arrange for adequate accommodations for the assigned staff and their families on a mutually agreeable reciprocal basis.
  7. The receiving Party shall provide all necessary assistance to the assigned staff and their families as regards administrative formalities (travel arrangements, etc.).
  8. 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.
  9. The Party proposing an attachment shall notify the receiving Party of the name of the persons proposed for the attachment and shall provide such information respecting any of the said persons as may be required by the receiving Party.

#### ARTICLE XI

Both Parties agree that in the event equipment, 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 in accordance with paragraph 2 of Article III, 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 in writing.
3. The equipment, etc. shall be brought into operation at the host establishment only by mutual agreement 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

Performance of the Parties under this Agreement is subject to the availability of appropriated funds.

#### ARTICLE XIII

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

#### ARTICLE XIV

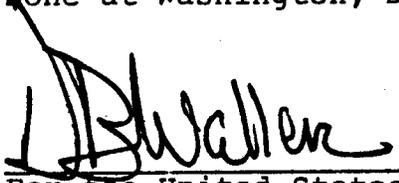
Compensation for damages incurred during the implementation of this Agreement shall be in accordance with the applicable laws of the countries of the Parties.

#### ARTICLE XV

1. This Agreement shall enter into force upon signature and shall continue in force for ten years. The Agreement may be amended or extended by written agreement of each of the Parties.
2. All activities not completed at the expiration of this Agreement may be continued until their completion under the terms of this Agreement.
3. In the event that, during the period of this Agreement, the nature of either Party's radioactive waste management program should change substantially, whether this be by substantial expansion, reduction or transformation, or by amalgamation of major elements with the radioactive waste management program of a third Party, either Party shall have the right to request revisions in the scope and terms of this Agreement.

4. This Agreement may be terminated at any time at the discretion of either Party upon six months advance notification in writing by the Party seeking to terminate the Agreement. Such termination shall be without prejudice to the rights that may have accrued under this Agreement to either Party up to the date of the termination.

Done at Washington, D.C., this 3rd day of December 1986.



For the United States  
Department of Energy



For the Power Reactor and  
Nuclear Fuel Development  
Corporation of Japan

**AMENDMENT NO. 1  
TO  
THE AGREEMENT  
BETWEEN  
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA  
AND  
THE POWER REACTOR AND NUCLEAR FUEL DEVELOPMENT CORPORATION  
OF JAPAN  
IN  
THE AREA OF RADIOACTIVE WASTE MANAGEMENT**

The Department of Energy of the United States of America ("DOE") and the Power Reactor and Nuclear Fuel Development Corporation of Japan ("PNC") , hereinafter referred to as the Parties;

Having signed an Agreement to cooperate in the Area of Radioactive Waste Management (hereinafter referred to as "the Agreement") on the 3rd day of December 1986, with a duration of ten years;

Recognizing the usefulness and mutual benefit of this cooperation and wishing to extend the Agreement in order to continue cooperation in the area of Radioactive Waste Management;

Noting that Article XV provides for amendment and extension of the Agreement by written agreement of each of the Parties ;

Have agreed as follows:

A. Articles VI, VII, VIII, and IX of the Agreement shall be deleted and the following new Articles VI and VII shall be substituted therefor:

ARTICLE VI

1. The Parties shall exchange, as agreed on a mutually beneficial basis, scientific and technical information documents and results of research and development of related work carried out under this Agreement. Such information shall be limited to that which they have the right to disclose, either in their possession or available to them, from the technical areas described in Article II of the Agreement.
2. PNC shall provide DOE with abstracts in English of reports or other information on Japan's radioactive waste technology programs. Payment for translation will be decided by the Parties on a case-by-case basis.

3. Seminar proceedings and reports of joint activities carried out under the Agreement shall be published as joint publications, as mutually agreed by the Parties.
4. The Parties agree that information developed and exchanged under the Agreement should be given wide distribution. Such information, except as noted in Article VII of the Agreement, may be made available to the public by either Party through customary channels and in accordance with normal procedures of the Parties.
5. Copyrights of either Party or of cooperating organizations and persons shall be accorded treatment consistent with internationally recognized standards of protection. As to copyrights of material within the scope of Article VII owned or controlled by a Party, each Party shall make efforts to grant to the other a license to reproduce copyrighted materials.
6. The application or use of any information exchanged or transferred between the Parties under the Agreement shall be the responsibility of the Party receiving it, and the transmitting Party does not warrant the suitability of such information for any particular use or application.
7. Details and procedures for the protection and distribution of intellectual property rights and other rights of a "business confidential" nature are set forth in Article VII. Article VII is applicable to any cooperative activities under the Agreement, except as otherwise specifically agreed by the Parties in an Implementing Arrangement or otherwise. Such Implementing Arrangements also may elaborate upon the provisions of Article VII.

## ARTICLE VII

### 1. Business-Confidential Information

A. For the purpose of the Agreement, "business-confidential" information means any know-how, technical data, or technical, commercial, or financial information that is developed outside the Agreement and that meets all of the following conditions:

- (i) It is 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 transferred only by 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 will be appropriately identified before it is furnished in the course of the cooperative activities under the Agreement. 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 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 paragraph B above.

## 2. Ownership of Intellectual Property Rights

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

## 3. Inventions

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

B. As to an Invention, the Parties shall 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 under the Agreement 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 implementing arrangement:
  - (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 sub-paragraph (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 interest 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 arrangements involving other forms of the cooperative activities, such as joint research projects with an agreed research work scope, will 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 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.

4. Copyrights

Disposition of rights to copyright-protected works created in the course of the cooperative activities under the Agreement will be determined in the relevant implementing arrangements. Each Party shall take appropriate steps to secure copyrights to works created in the course of the cooperative activities under the Agreement in accordance with its national laws and regulations.

5. Other Forms of Intellectual Property

For those other forms of intellectual property created in the course of the cooperative activities under this Agreement 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 regulation of the respective countries.

6. 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 Agreement. The Parties assume 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 Agreement creates no entitlement to any such award or compensation.

- B. Article XV is amended to provide that the Agreement is extended for a period of five (5) years from December 3, 1996 to December 2, 2001.

Done at Washington, D.C., this 21st day of November 1996.



For the United States  
Department of Energy:

中野啓昆  
For the Power Reactor and  
Nuclear Fuel Development  
Corporation of Japan: