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:

- categorization of, and methods of determination of, waste sorting techniques and development and testing of radiological-assay instruments;
- waste-form characterization including standardization of tests to predict glass performance during disposal;
- 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;
- design, testing and assessment of surface and subsurface systems for waste storage;
- disposal and isolation of radioactive wastes, for example, in geologic formations;
- 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;
 - 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.
- 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.

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.
- 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 <u>mutatis mutandis</u> 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 is 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 XY

- 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.

one 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