

SPECIFIC MEMORANDUM OF AGREEMENT
between
THE UNITED STATES DEPARTMENT OF ENERGY
and
THE POWER REACTOR AND NUCLEAR FUEL DEVELOPMENT
CORPORATION OF JAPAN

in the area of

A COOPERATIVE PROGRAM FOR THE DEVELOPMENT OF A
CENTRALIZED LMFBR COMPONENT RELIABILITY DATA BASE
AND DATA BASE MANAGEMENT SYSTEM

This Specific Memorandum of Agreement (hereinafter referred to as "SMA") is made between the United States Department of Energy (hereinafter referred to as "DOE") and the Power Reactor and Nuclear Fuel Development Corporation of Japan (hereinafter referred to as "PNC"), hereinafter called the "Parties".

WHEREAS, the DOE and PNC under the Liquid Metal-Cooled Fast Breeder Reactors (LMFBR) Agreement of January 31, 1979, (hereinafter called the "Umbrella Agreement") agreed to continue close and long-term cooperation in the field of LMFBR technology;

WHEREAS, the Parties have undertaken substantial Liquid Metal Base Breeder Research and Development Programs, and the Parties have an interest in moving to commercially available technologies as soon as possible;

WHEREAS, the Parties have placed into operation Fast Test Reactors for experimental purposes, and have accumulated significant operating experiences on these reactors;

WHEREAS, the Parties have operated test facilities, in which components have been operated and tested under conditions similar to those in operating fast reactor plants;

WHEREAS, the Parties have accumulated significant experience with the performance and maintenance of plant systems and components in both reactors and in test facilities;

WHEREAS, the Parties believe that the generation of a common data base from which reliability data for LMFBR components can be obtained will be beneficial in the achievement of commercially available technologies;

NOW THEREFORE, it is agreed as follows:

Article 1 - Objective

1. The specific objective of this SMA is to provide for the continuation of a cooperative joint program between DOE and PNC for the compilation of a centralized reliability data base for LMFBR components. To accomplish this objective, PNC will continue with DOE in the development of the data base of the Centralized Reliability Data Organization (hereinafter referred to as "CREDO") data base and the CREDO data base management system (hereinafter referred to as "DBMS") under a data-pooling and shared-cost arrangement.

Article 2 - Responsibilities

The responsibilities of the Parties shall be as follows:

Specifically, DOE will provide to PNC:

1. Data and information collected from the Fast Flux Test Facility (FFTF) , the Experimental Breeder Reactor-II (EBR-II), and the test loops of the Energy Technology Engineering Center (ETEC).
2. Development and implementation of the CREDO DBMS and associated auxiliary software programs at Oak Ridge National Laboratory (hereinafter referred to as "ORNL"), incorporating DOE and PNC contributions.
3. Technical support for maintaining the CREDO DBMS and auxiliary software programs at the O-arai Engineering Center of Japan.
4. Modifications and improvements to CREDO's DBMS and auxiliary software programs to PNC, and technical support for their implementation.
5. Support for writing, presenting, and publishing joint technical papers.
6. Facilities, personnel, and equipment to successfully implement and carryout the agreement between DOE and PNC.
7. Planning, coordination, and participation in Review Meetings and in CREDO Coordination Meetings as required. Such meetings shall be conducted at agreed upon locations and at agreed upon times.

Specifically, PNC will provide to DOE:

1. Data and information collected from the JOYO LMFBR, and other related facilities (as available) in CREDO-compatible formats and in English.
2. PNC-developed improvements to the DBMS in English.

3. Support for writing, presenting, and publishing joint technical papers.
4. Participation in Review Meetings and in CREDO Coordination Meetings as required. Such meetings shall be conducted at agreed upon locations and at agreed upon times.

Each Party shall provide to the other Party brief and informal periodic reports describing the status of work performed under this SMA.

Article 3 - Management

1. The DOE/PNC Joint Coordinating Committee established pursuant to Article 4 of the Umbrella Agreement shall be responsible for the review, evaluation, assessment, and approval of the Program to be conducted under this SMA.
2. For periods between meetings of the DOE/PNC Joint Coordinating Committee, each Party's Safety Working Group Head shall act on the Party's behalf in all matters concerning cooperation under this SMA, as provided for in Article 4.3 of the Umbrella Agreement.

Article 4 - Financial Terms

1. PNC agrees to share the costs in U.S. Dollars for the continued development of the CREDO data base and DBMS, and the total costs of PNC's share shall be \$ 2,000,000 paid over four Japanese fiscal years (hereinafter referred to as "JFY") starting in JFY 88. The cash contribution schedule shall be as follows:

JFY 88	\$500,000
JFY 89	\$500,000
JFY 90	\$500,000
JFY 91	\$500,000

2. All payments shall be made to the account designated by DOE within 30 days after receipt of the invoice by PNC. For each JFY, the invoice must be dated April 1 or later.
3. In case of an early termination provided in Article 8.2, the agreed of the return to PNC of any unused funds shall be mutually settled.
4. The obligation of the Parties to carry out this SMA is subject to the availability of appropriated funds from the Governments of the respective Parties.

Article 5 - Observers and Assignees

Short visits by personnel of one Party and its Contractors to the other Party's relevant facilities in regard to key aspects of this SMA are anticipated and are subject to the approval of DOE/PNC Safety Working Group Heads on a case-by-case basis. DOE and PNC may mutually determine, in the course of performance of this SMA, that it is desirable that qualified staff be assigned to the other Party's relevant facility for an extended period. Any such assignments shall be the subject of separate agreements between the Parties pursuant to Article 11 of the Umbrella Agreement.

Article 6 - Incorporation by Reference

Article 6, paragraphs 1, 2, 3, and 4, Article 8, and Article 14 of the Umbrella Agreement are hereby incorporated by reference. The Parties shall not exchange industrial property of a proprietary nature as defined in paragraphs 5 and 6 of Article 6 of the aforementioned Agreement under this SMA without the express written agreement of the Parties.

Article 7 - Modification of SMA

The Parties may mutually agree to modify or extend this SMA. Such modifications or amendments shall be made in writing and signed by the duly authorized officers or representatives of the Parties.

Article 8 - Duration

1. This SMA shall enter into force upon signature by the Parties hereto and terminate no later than four years from the date of signature unless extended by mutually written agreement.
2. Either Party may terminate this SMA in whole or in part by giving the other Party no less than one hundred eighty (180) days prior written notice. In such event, either Party shall not be liable to the other Party for any costs incurred after said termination date for the work terminated. However, termination of this SMA shall not affect PNC's obligations to reimburse DOE for costs incurred in performing (a) work for PNC prior to the effective date of termination or (b) work authorized by PNC to be continued beyond the termination date. In case of termination, the settlement of furnishing of information between PNC and DOE shall be mutually agreed.

3. All joint activities initiated but not completed at the termination of this SMA may be continued until their completion as if this SMA were still in effect.

Done at Germantown, MD in duplicate, this 19th day of
August 1988.

FOR THE UNITED STATE
DEPARTMENT OF ENERGY

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