

SPECIFIC MEMORANDUM OF AGREEMENT
BETWEEN
THE JAPAN ATOMIC ENERGY RESEARCH INSTITUTE
AND
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
FOR A COLLABORATIVE PROGRAM OF TARGET DEVELOPMENT
FOR HIGH POWER SPALLATION NEUTRON SOURCES

The Japan Atomic Energy Research Institute (JAERI) and The Department of Energy of the United States of America (DOE), hereinafter referred to as the Parties;

Noting that the Parties have agreed to institute long-term cooperation in the field of nuclear research and development under their Agreement in the Field of Nuclear Research and Development, which entered into force on July 17, 1995 (hereinafter referred to as the "Nuclear R & D Agreement");

Desiring to cooperate in target studies using the Alternating Gradient Synchrotron (AGS) at Brookhaven National Laboratory (BNL) as the proton source, under a Specific Memorandum of Agreement (hereinafter referred to as a "Specific Memorandum"); in accordance with Articles 3 and 5 of the Nuclear R&D Agreement;

Have agreed as follows:

ARTICLE I

1. OBJECTIVE

A. The objective of this Specific Memorandum is to study and develop liquid mercury targets for high power spallation neutron sources by using the AGS facility, in accordance with Article 5 of the Nuclear R & D Agreement.

2. TECHNICAL SCOPE

A. Mercury target experiment using the AGS facility shall be performed in cooperation

between the Parties. The joint project includes the following experiments:

- (1) Bare target experiment with measurements of neutronics, pressure wave, temperature, etc.
- (2) Moderator/Reflector experiment with measurements of neutronics, temperature, etc.
- (3) Spallation products experiment
- (4) Shielding experiment

B. The project covers exchange of information, personnel and equipment which are required for implementation of the joint experiment.

C. Meetings and workshops shall be organized by both Parties to exchange information and discuss the project execution.

3. MANAGEMENT

A "Coordinator" from each side shall be assigned for the detailed management, including technical progress reviews and discussions of future activities, together with the financial contribution of DOE and JAERI, of the cooperation under this Specific Memorandum.

4. FINANCE

A. As for the first payment, JAERI shall provide to DOE 200,000 US dollars.

B. As for the following year, the Coordinators shall propose the annual financial contribution of DOE and JAERI to the Joint Working Group (JWG) for its approval.

C. After having approved by the JWG and JCC, JAERI shall provide to DOE a financial contribution in the United States dollars as mutually determined on an annual basis in which lump sum shall be paid within sixty (60) days from the receipt of an invoice which shall be sent to JAERI on or before January 31 of each calendar year. JAERI shall arrange to make payment in the United States dollars in accordance with instructions provided by DOE.

D. In January of each year, DOE shall provide to JAERI a projection of expenditures for

this project covering the next US fiscal year.

E. DOE shall provide quarterly to JAERI an accounting of expenditures related to the joint project for the previous quarter.

F. It is understood that the ability of DOE and JAERI to carry out their obligations under the joint project is subject to the availability of appropriated funds. If at any time DOE or JAERI is unable to provide its financial contribution, neither DOE nor JAERI shall be obligated to expend any funds for the joint project.

5. INFORMATION USE AND DISCLOSURE

A. Neither Party (or its contractors) assumes any liability with respect to the accuracy and suitability of any information transmitted for any particular use or application.

B. The Party transmitting information developed under this Specific Memorandum shall not be responsible for any property damages or personal injury, whether nuclear or nonnuclear, suffered by the receiving Party, its government, its contractors and subcontractors, their employees and third parties resulting from the application or use of such information developed, exchanged or transferred between DOE and JAERI or DOE contractors and JAERI under this Specific Memorandum.

C. Disclosure of information developed and included in reports under the Specific Memorandum may take the form of joint publication or individual publications. Such disclosures of information shall be carried out under and subject to the Nuclear R & D Agreement.

6. EXCHANGE OF PERSONNEL AND EQUIPMENT

A. The Party may assign its staff to the other party . Such exchange of personnel shall be in accordance with Article 9 of the Nuclear R&D Agreement, provided that the assigning party shall only be liable for any alleged or actual liability costs or expenses incurred as a result of personal injury, death or property damage that might occur to the receiving Party, its officer, agent or employee of the receiving Party, when it is proven that such injury, death or property damage was caused by the gross negligence or intentional misconduct

of its assigned staff.

B. In case instrument or equipment for collaborative target studies are to be supplied by one Party and brought to the other Party, the Article 8 of the Nuclear R&D Agreement shall be applied.

7. GENERAL PROVISIONS

A. Except when the Parties otherwise agree in writing, each Party shall bear the costs of its participation in the activities under this Specific Memorandum. Accordingly, DOE and JAERI will fully fund the facility, equipment, and personnel costs concerning development activities in their respective countries. The ability of the Parties to carry out their obligations is subject to the appropriation of funds by the appropriate governmental authority, to the availability of personnel and other resources, and to laws and regulations applicable to the Parties.

B. Any questions of interpretation or implementation relating to the Specific Memorandum arising during its term shall be resolved by agreement of the Parties.

C. Cooperation under this Specific Memorandum shall be carried out subject to the Nuclear R&D Agreement.

ARTICLE II

This Specific Memorandum is without prejudice to other agreements or arrangements which exist or could be concluded between Japan and the United States of America. The provisions of this Specific Memorandum shall not affect the rights or duties of the Parties specified under other agreements or arrangements, and shall not preclude the Parties from engaging in activities with other governments or persons, except that industrial property of a business-confidential nature shall have limited dissemination as set forth in Article 7 of the Nuclear R&D Agreement.

ARTICLE III

All questions related to the interpretation or application of this Specific Memorandum shall be settled by agreement of the Parties through consultations in good faith.

ARTICLE IV

A. The Specific memorandum shall enter into force upon signature, and shall continue for a three (3) year period, unless early terminated by one of the Parties and may be extended or amended by written agreement of the Parties, provided that the Nuclear R & D Agreement remains in force.

B. This Specific Memorandum may be terminated at any time at the discretion of each Party, upon ninety (90) days advance notification in writing by the Party seeking to terminate the Specific Memorandum. Such termination shall be without prejudice to any rights and interest which may have accrued under this Specific Memorandum to either Party up to the date of termination.

C. Activities of the joint project not completed at the termination of this Specific Memorandum may, if agreed by the Parties, be continued until their completion under the terms of this Specific Memorandum.

Done at Tokyo, this 23 rd day of April, 1998.

FOR THE DEPARTMENT OF ENERGY
THE UNITED STATES OF AMERICA

FOR THE JAPAN ATOMIC ENERGY
RESEARCH INSTITUTE

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