

MINISTRY OF EDUCATION, SCIENCE AND CULTURE (MONBU-SHO)

2-2, Kasumigaseki 3-chome, Chiyoda-ku, Tokyo, 100 Japan

Telephone: 561-4211

Cable Address: MONBUKYOIKU

February 9, 1982

Dear Dr. Clarke:

I am in receipt of your letter, dated February 9, 1982, which reads as follows:

"I have the honor to refer to Article IV of the Agreement between the Government of the United States of America and the Government of Japan on Cooperation in Research and Development in Energy and Related Fields, signed at Washington on May 2, 1979 (hereinafter referred as "the US-Japan Agreement"), which provides that implementing arrangements specifying the details and procedures of cooperative activities in the areas referred to in Article II of the US-Japan Agreement will be made between the two Governments or their agencies, whichever is appropriate, and to the Exchange of Notes between the United States and Japan establishing a Coordinating Committee on Fusion Energy on August 24, 1979 which shall review and formulate proposals for new joint projects. I thereby propose, on behalf of the Government of the United States, the following cooperative project in accord with the Protocol of the Third Meeting of the US-Japan Coordinating Committee on Fusion Energy held in Cambridge, Massachusetts on May 1, 1981:

ARTICLE I
OBJECTIVE

The objective of cooperation between the Department of Energy of the United States of America (DOE) and MONBUSHO (The Ministry of Education, Science and Culture of Japan) (hereinafter referred to as the Parties) under this cooperative project is to expand the utilization of the Rotating Target Neutron Source (RTNS-II) and thereby gain knowledge of the influence of 14 MeV neutrons on the properties and behavior of materials for the development of fusion reactors.

ARTICLE II
PROJECT

The RTNS-II Facility is operated by the University of California, Lawrence Livermore National Laboratory (LLNL) for DOE under contract W-7405-ENG-48, and is located at LLNL in Livermore, California. The RTNS-II Facility includes two independent 14 MeV neutron sources, each with a design goal of 4×10^{13} n/s, for the irradiation of materials specimens, inside their respective test cells. Technical areas related to the facility include ion sources, high voltage components, tritium handling, personnel protection, shielding, neutron activation, beam transport and diagnostics, target fabrication, test specimen, assembly development, and so on.

The joint work on RTNS-II (hereinafter referred to as the RTNS-II Cooperative Project) shall be undertaken as follows:

1. One cell started operation in 1979. The Parties shall jointly support implementation of the operation of the second accelerator and target. Although it is estimated that activation of the second neutron source and the second test cell may take one year, MONBUSHO shall be entitled to begin irradiation experiments upon the effective date of the exchange of letters establishing the RTNS-II cooperative project.

2. Parties shall jointly support the operation of both neutron sources for the duration of this cooperative project. Up to 10% of the total facility operating time may be allocated, at the discretion of DOE, primarily for other international experiments such as those under discussion with the International Energy Agency. DOE and MONBUSHO will otherwise share equally, on an annual basis, in the utilization of the facility.

3. Experiments may be planned and executed jointly, and may be undertaken independently.

4. All results from this cooperative project shall be published in English in the open literature.

5. Postirradiation examinations shall be primarily conducted by the Party who supplies the specimens for irradiation testing. MONBUSHO shall be entitled to set up small-scale metallurgical equipment and diagnostic tools for the examination of specimens at RTNS-II, subject to space availability as determined by the Facility Manager in accordance with paragraph 5 of Article III. Such equipment shall remain the property of and be operated by MONBUSHO, but shall be available to DOE experimenters as jointly determined by DOE and MONBUSHO.

6. MONBUSHO may assign up to two Japanese professionals and up to two facility operations technicians at any one time, in accordance with Article V, to participate in RTNS-II research and development activities, to plan and observe materials irradiation experiments, or to conduct or cooperate in limited postirradiation examination, as stipulated in paragraph 5 above. In accordance with Article V, MONBUSHO may assign staff members to another laboratory designated by DOE which is engaged in postirradiation examinations to examine specimens irradiated in the RTNS-II Facility. However, such assignments are subject to agreement between the Parties on a case by case basis, and the scope of work shall be worked out between the Parties prior to arrival of the individual.

ARTICLE III

MANAGEMENT

1. The Parties agree to establish an RTNS-II Steering Committee which shall be composed of four members as follows:

- a) Two MONBUSHO representatives
- b) Two DOE representatives

Each Party shall designate appropriate alternates who shall serve if the assigned members are unable to do so. Each Party shall inform the other in writing of all designations under this paragraph. Each Party shall be entitled to invite up to five observers at a meeting. Each Party shall have one vote in the Steering Committee and all decisions shall be by unanimity. The Steering Committee shall be chaired by the Party which hosts the Steering Committee meeting.

2. The RTNS-II Facility Manager shall be the Meeting Coordinator for the Steering Committee. The Steering Committee shall report to the Joint US-Japan Coordinating Committee on Fusion Energy on an annual basis.

3. The Steering Committee shall review and approve the annual program of work, including anticipated experiments and their scheduling as outlined in the Experimental Use Plan of the RTNS-II Facility, and the annual research and development program for increasing the reliability, flexibility and neutron output of the RTNS-II Facility. The Facility Manager shall prepare the Experimental Use Plan prior to each Steering Committee meeting. The Steering Committee shall review the plan for equitable distribution of flux to both Parties and assure consistency with other programs. Submission of experiments shall be through procedures to be established in accordance with the most current version of the "Experimenters Guide -- Rotating Target Neutron Source II Facility" published by LLNL, as updated by DOE as necessary.

4. The Steering Committee shall meet in Livermore, California, (unless an alternative location is mutually agreed upon) on a date mutually agreed upon. The Steering Committee shall meet every six months for the first eighteen months of this Agreement and at least annually thereafter. The Facility Manager shall notify both representatives 45 days in advance of the upcoming Steering Committee meeting, and shall prepare an agenda for the meeting.

5. Responsibility for operating the RTNS-II Facility, establishing technical feasibility and assuring safety, rests with the Lawrence Livermore National Laboratory which operates the facility for DOE. This responsibility is delegated to the RTNS-II Facility Manager.

ARTICLE IV

FINANCE

1. MONBUSHO and DOE shall agree on an annual budget for RTNS-II including costs for operation, targets, equipment and neutron-source and ancillary-component development. Nagoya University shall be billed on behalf of MONBUSHO for its share of costs on a regular, periodic basis and MONBUSHO shall be entitled to begin irradiation experiments upon the effective date of the exchange of letters establishing the RTNS-II cooperative project.
2. In July of each year, DOE shall provide to MONBUSHO an accounting of expenditures related to the use of the RTNS-II Facility for the previous Japanese fiscal year (concluded March 31), and a projection for expenditures in the next Japanese fiscal year (beginning the following April 1).
3. It is understood that the ability of the Parties to carry out their obligations under this cooperative project is subject to the availability of appropriated funds.
4. If at any time either Party is unable to provide its financial contribution or either Party terminates this Exchange of Letters pursuant to Article VIII, DOE and MONBUSHO shall not be obligated to continue to expend any funds for the RTNS-II Facility unless otherwise mutually agreed.

ARTICLE V

ASSIGNMENT OF PERSONNEL

1. Each assignment of staff shall be the subject of a separate assignment agreement between the sending laboratory in Japan and the receiving laboratory in the United States, subject to the approval of MONBUSHO and DOE.
2. MONBUSHO shall be responsible for the salaries to be paid to its personnel.
3. MONBUSHO shall bear the travel and living expenses to its personnel while on assignment unless otherwise agreed.
4. DOE, through its laboratories, shall assist in arranging for accommodations of MONBUSHO personnel and their families.
5. DOE, through its laboratories, shall provide all necessary assistance to MONBUSHO personnel and their families as regards administrative formalities, including travel arrangements.
6. MONBUSHO's personnel shall conform to the general rules of work and safety regulations in force at the site.

ARTICLE VI

LIABILITY

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

ARTICLE VII

INFORMATION AND PATENTS

1. The Parties shall exchange information necessary to carry out the RTNS-II cooperative project.
2. All information arising from this cooperative project shall be promptly exchanged between the Parties.
3. The application or use of any information exchanged under or arising from the cooperative project shall be the responsibility of the Party receiving it, and the other Party does not warrant the suitability of such information for any particular use or application.
4. The information exchanged under and arising from this cooperative project may be given wide distribution. Such information may be made available to the public by either Party through customary channels and in accordance with the normal procedures of the Parties.
5. Copyrights of either Party or of cooperating organizations or persons shall be accorded treatment consistent with internationally recognized standards of protection.
6. Proprietary information shall not be accepted or utilized in the RTNS-II cooperative project without the express written approval of DOE and MONBUSHO. For the purposes of this cooperative project, proprietary information shall mean information of a confidential nature such as trade secrets and know-how (for example, computer programs, design procedures and techniques, chemical composition of materials, or manufacturing methods, processes, or treatments) which is appropriately marked, provided such information:
 - A. Is not generally known or publicly available from other sources;
 - B. Has not previously been made available by the owner to others without obligation concerning its confidentiality; and
 - C. Is not already in the possession of the recipient without obligation concerning its confidentiality.

It shall be the responsibility of the Party supplying proprietary information to identify the information as such and to ensure that it is appropriately marked.

7. Inventions made or conceived in the course of or under this cooperative project resulting from improvements to the RTNS-II Facility and during the research under the RTNS-II cooperative project (hereinafter referred to as "arising inventions") shall be identified and reported promptly by DOE and MONBUSHO. Information regarding inventions on which patent protection is to be obtained shall not be published or publicly disclosed by the Parties until a patent application has been filed in either country of the Parties, provided, however, that this restriction on publication or disclosure shall not extend beyond six months from the date of reporting of the invention. It shall be the responsibility of DOE to mark appropriately reports which disclose inventions that have not been appropriately protected by the filing of a patent application.

8. Arising inventions shall be owned by MONBUSHO in Japan subject to a non-exclusive, irrevocable license to DOE, its Government and its nationals designated by DOE on reasonable terms and conditions. Arising inventions shall be owned by DOE in the United States and third countries subject to a non-exclusive, irrevocable license to MONBUSHO, its Government and its nationals designated by MONBUSHO on reasonable terms and conditions.

9. Each Party shall assume the responsibility to pay awards or compensation required to be paid to its own nationals according to its own laws. Each Party shall, without prejudice to any rights of inventors under its national laws, take all necessary steps to provide the cooperation from its inventors required to carry out the provisions of this Article.

ARTICLE VIII

ADDITIONAL PROVISIONS

1. This exchange of letters establishing the RTNS-II cooperative project shall enter into force upon signature by both Parties and shall remain in force for a period of five (5) years.

2. This exchange of letters may be terminated at the discretion of either Party upon 6 months advance notice in writing by the Party seeking to terminate the cooperative project.

3. Any termination shall be without prejudice to the rights which may have accrued under this cooperative project to either Party up to the date of such termination. In the event of such termination, the settlement of payments from MONBUSHO and DOE and the furnishing of information between DOE and MONBUSHO shall be mutually agreed.

4. This Exchange of Letters may be amended or extended by mutual written agreement of the Parties.

5. Activities under the RTNS-II Cooperative Project shall be subject to the applicable laws and regulations of the countries of the Parties. All questions related to the RTNS-II Cooperative Project arising during its term shall be settled by the Steering Committee.

6. DOE shall be solely responsible for all aspects of the RTNS-II Facility. The research activities in the RTNS-II Facility other than those to be carried out under the RTNS-II Cooperative Project shall be the sole responsibility of DOE.

I would be grateful if you would be kind enough to confirm that the foregoing is acceptable to MONBUSHO."

I am pleased to confirm to you that MONBUSHO is agreeable to the arrangement contained in the above letter of yours.

With best regards,

Sincerely yours,



Iwane Kawano
Director, Research Aid Division
Ministry of Education, Science
and Culture



Department of Energy
Washington, D.C. 20585

Mr. Iwane Kawano
Director of Research Aid Division
Bureau of International and Scientific Affairs
Ministry of Education, Science and Culture
Chiyoda-ku, Tokyo, 100 Japan

Dear Mr. Kawano:

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ARTICLE VIII

ADDITIONAL PROVISIONS

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6. DOE shall be solely responsible for all aspects of the RTNS-II Facility. The research activities in the RTNS-II Facility other than those to be carried out under the RTNS-II cooperative project Agreement shall be the sole responsibility of DOE.

I would be grateful if you would be kind enough to confirm that the foregoing is acceptable to the Ministry of Education, Science and Culture of Japan. With best regards,

Sincerely yours,

John F. Clarke
Deputy Associate Director
for Fusion Energy
Office of Energy Research