



POLICY ISSUE **(Information)**

December 1, 1988

SECY-88-329

For: The Commissioners

From: Victor Stello, Jr.
Executive Director for Operations

Subject: DRAFT AGREEMENT ON THE TESTING AND ADMINISTRATIVE PROGRAM FOR
CERTIFYING PLUTONIUM AIR TRANSPORT PACKAGES

Purpose: To inform the Commission of a draft agreement, between the U.S. Nuclear Regulatory Commission (NRC) and the Power Reactor and Nuclear Fuel Development Corporation (PNC), which establishes a program to satisfy Murkowski Amendment requirements (Public Law No. 100-203).

Background: The staff recently informed the Commission through an information paper (SECY-88-302 dated October 25, 1988) on the status of implementing the Murkowski Amendment, including such issues as legal interpretation of Amendment provisions, the relationship between the Amendment requirements and NRC's existing plutonium air transport criteria, and modification of the US-Japan Bilateral agreement providing for sea shipment of plutonium from Europe to Japan. The previous paper also noted that an agreement between NRC and PNC concerning implementation of the Murkowski Amendment would be forwarded to the Commission in the next several months. This paper provides a draft of that agreement (Enclosure 1) and summarizes other progress in this area.

Discussion: The staff from the Division of Safeguards and Transportation, the Office of the General Counsel and the Office of Administration and Resource Management have met with representatives of PNC and the Embassy of Japan to develop an agreement to ensure that efforts toward certification of plutonium air transport packages would comply with Public Law 100-203. The law requires that all NRC costs associated with the required package testing be reimbursed by the country receiving plutonium through U.S. airspace. The Director General of Japan's Science and Technology Agency (STA)/ Atomic Energy Bureau stated, in a letter to the Executive Director of Operations dated November 9, 1988, that PNC is a "...semi-governmental organization and an important arm of the Government of Japan..." (Enclosure 2). The letter provides the necessary basis for NRC to enter into an agreement and to accept funds from PNC to cover costs, as required by the Murkowski Amendment. The draft Agreement provides

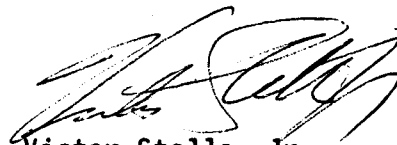
Contact:
J. R. Cook, NMSS
49-20458

the vehicle through which the costs will actually be reimbursed to NRC by PNC. The draft is being reviewed by the NRC and PNC management and some modifications are likely based on these reviews.

The Agreement is limited to Phase One of an envisioned four-phase program. Phase One products include draft criteria for the requisite package drop test, as well as draft requirements for an aircraft crash test, and draft criteria for controlled tests to be used in developing the package, which could be used as an alternative to crash-testing an aircraft. Subsequent phases, including development of final criteria, developing test plans and conducting testing, and package design certification, would be the subject of other agreements. Under the terms of the draft Agreement, PNC would provide \$3.5M in Phase One funding to NRC.

Scheduling:

The staff plans to forward a separate paper to the Commission on selection of an actual worst-case aircraft accident. I would expect to approve the final Phase One agreement by mid-December. Phase One activities call for interim reports on draft crash-test requirements by July 15, 1989. These reports are needed by PNC to assist it in shipment-mode decisions before completion of Phase One activities, scheduled for September 30, 1990.



Victor Stello, Jr.
Executive Director for Operations

Enclosures:

1. Draft Agreement
2. Letter dated 11/09/88
from STA

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DRAFT 11/9/88

4:30 p.m.

AGREEMENT BETWEEN
THE UNITED STATES NUCLEAR REGULATORY COMMISSION
AND
THE POWER REACTOR AND NUCLEAR FUEL
DEVELOPMENT CORPORATION
ON THE TESTING AND ADMINISTRATIVE PROGRAM FOR
CERTIFYING PLUTONIUM AIR TRANSPORT PACKAGES

PHASE ONE
DRAFT CRITERIA DEVELOPMENT

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Figure 1 - Implementation Diagram for Public Law 100-203

Appendix A - Phase One; Draft Criteria Development

Appendix B - Funding Schedule

Appendix C - Designation of USNRC and PNC Staff Contacts

The United States Nuclear Regulatory Commission (Hereinafter USNRC) has statutory responsibility for the United States to approve and certify the safety of packages intended for transport of plutonium through the airspace of the United States while enroute from a foreign country to a foreign country.

The Power Reactor and Nuclear Fuel Development Corporation (Hereinafter PNC) has responsibility to develop packages for use under national policy with the funding and direction of the Government of Japan and the authorities granted PNC under Atomic Energy Basic Law of 1955 and the Power Reactor and Fuel Development Corporation Law of 1967.

The PARTIES have agreed as follows:

ARTICLE 1 - OBJECTIVE

1.1 The overall objective of this program is to comply with Public Law 100-203 of the United States of America concerning the transport of plutonium through the air space of the United States, by requiring packages intended for that use to be tested to actual worst case accident conditions and, if found acceptable, certifying the safety of a package design to Congress. The objective of this agreement, Phase One, as defined in Article 4, is to develop draft criteria to satisfy the law.

ARTICLE 2 - ROLES OF PARTIES

2.1 As the responsible regulatory agency, the USNRC must act in an independent manner in establishing test criteria, certifying and approving package designs.

2.2 The role of the PNC in this program is comparable to that of a U.S. domestic entity seeking package design certification from the USNRC.

ARTICLE 3 - THE TESTING AND ADMINISTRATIVE PROGRAM

3.1 The parties agree that the program shall consist of the four phases as shown in Figure 1, during which the USNRC, acting as a regulatory agency, shall determine the type and nature of the testing and other qualifications necessary to demonstrate and certify a package as able to withstand actual worst case aircraft accidents. PNC would be responsible for performing actual testing responsive to USNRC requirements and to provide results to the USNRC in Phase Three. PNC shall fund all costs associated with the program.

3.2 This agreement establishes Phase One of the program.

3.3 The estimated cost, schedule and other aspects of Phase One are set forth in Appendix A to this agreement. Appendix A may be modified as a result of information developed under this agreement or for other reasons. In the event of increased cost or an extension of schedule, prior consultation with PNC will be made. The Director, Division of Safeguards

and Transportation, Office of Nuclear Material Safety and Safeguards, (Hereinafter NMSS/SGTR) may approve modifications to Appendix A.

ARTICLE 4 - PHASE ONE; DRAFT CRITERIA DEVELOPMENT

4.1 Obligations of the USNRC shall include:

4.1.1 Collect, review and assess relevant data on major transport air crashes;

4.1.2 Develop draft criteria for drop testing candidate packages filled with test material from aircraft;

4.1.3 Develop draft requirements for crash testing a cargo plane fully loaded with candidate packages filled with test material;

4.1.4 Develop draft criteria for controlled tests to be used in developing the package, as an alternative to crash testing a cargo plane, and develop a plan for establishing an independent review panel that would review the controlled test criteria;

4.1.5 Provide PNC with an interim report as described in Appendix A;

4.1.6 Provide PNC with a final report of Phase One in accordance with Appendix A.

4.2 Obligations of the PNC during Phase One shall include:

4.2.1 Provide advance funding to support USNRC's work on the program during Phase One in accordance with Article 5 below and the Funding Schedule of Appendix B.

ARTICLE 5 - FUNDING THE PROGRAM

5.1 The USNRC estimated cost for Phase One is \$3,500,000. PNC will provide that amount of funding to the USNRC in accordance with the Funding Schedule of Appendix B after an NRC request for transfer of funds, which will be dated at least 14 days prior to the scheduled payment dates shown in Appendix B.

5.2 The preliminary estimate of the costs that the USNRC will incur consist of all costs associated with USNRC's performance and includes USNRC's direct labor, overhead, administrative costs, travel and per diem. The preliminary estimate also includes all costs of consultants, national laboratories and subcontractors, independent contractors, and other external resources that the USNRC will utilize.

5.3 The USNRC shall have no obligation to work on Phase One in the event that PNC fails to pay in accordance with Appendix B.

5.4 The PNC shall make all payments under this agreement in United States dollars to the U.S. Treasury account No. 31X0200 of the Nuclear Regulatory Commission.

5.5 At the completion of this agreement, the USNRC shall return, with a written explanation, any unobligated funds that remain, i.e., the funds shall be subject to deductions for contractor or other commitments.

5.6 The PNC agrees that it will fund the excess cost of Phase One within six months after the date that the USNRC notifies the PNC in writing that such additional funding is required to complete the phase. Such USNRC notification shall contain a revised cost estimate for that phase, together with a written explanation of the reasons for the excess costs. In the event that the PNC does not provide additional funding in accordance with this provision, the PNC agrees that the USNRC shall have no further obligations under this agreement.

5.7 The PNC agrees to pay all costs identified by the USNRC in accordance with Public Law 100-203.

ARTICLE 6 - MANAGEMENT OF THE PROGRAM

6.1 The USNRC agrees to use its best efforts to manage the work in a manner that conforms to the funding estimates, schedule projections, and other provisions of this agreement. The USNRC does not warrant that its

performance will satisfy these objectives, and the USNRC shall not be liable for any failure to do so.

6.2 In light of the regulatory nature of the program, the parties agree that the USNRC has sole authority to direct performance of work under this agreement. This includes both those portions of the work performed by USNRC personnel and work performed by national laboratories, contractors, consultants and others for the USNRC.

6.3 To assure regulatory independence, the parties agree that PNC's access to the information and data generated by the USNRC during the performance of this work, including work performed by others at USNRC's direction, shall be limited to that granted under this agreement.

Therefore, the PNC shall not communicate with individuals and organizations performing work for the USNRC under this agreement except when the PNC submits to the USNRC a written request for such communication, and one of the USNRC personnel designated in Appendix C, in accordance with 6.4, approves that request in writing in advance of the communication.

6.4 Only the PNC personnel identified in Appendix C have the right to communicate with those members of the USNRC staff identified in Appendix C who are managing the work under this agreement. Appendix C may be modified by the Director, Division of Safeguards and Transportation, Office of Nuclear Materials Safety and Safeguards, USNRC. However, the PNC recognizes that it is only entitled to general information on such

matters as status and funding and reports referenced elsewhere in this Agreement.

ARTICLE 7 - INFORMATION

7.1 Upon completion of the Phase One work, the PNC shall be entitled to obtain the same information relating to the work that would be released to a member of the public under the Freedom of Information Act.

ARTICLE 8 - INTERPRETATION AND DISPUTES

8.1 The parties understand that all actions under this agreement must conform to Public Law 100-203 and, in the event of an inconsistency between that law and this agreement, the law governs. Therefore, all interpretations of this agreement shall be consistent with that law as interpreted by the USNRC.

8.2 In the event of a dispute between the parties on the interpretation of this agreement, the dispute shall be presented to the Director, Office of Nuclear Material Safety and Safeguards for the USNRC and _____ for the PNC, who shall attempt to mutually resolve the dispute. Should they fail to agree on a mutual interpretation, the dispute shall be referred to the Executive Director for Operations of the USNRC who, after consultation with such representatives of the PNC as the PNC may designate, shall decide the dispute.

ARTICLE 9 - MODIFICATION AND INTERGRATION

9.1 No modification to this agreement shall be valid unless written and signed by the original signatory parties or their successors. This agreement contains the entire understanding between the parties and there are no understandings not set forth or incorporated by reference herein.

U.S. NUCLEAR REGULATORY COMMISSION

POWER REACTOR AND NUCLEAR FUEL
DEVELOPMENT CORPORATION

BY: _____
TITLE: _____

BY: _____
TITLE: _____

DATE: _____

DATE: _____

IMPLEMENTATION DIAGRAM FOR PUBLIC LAW 100-203

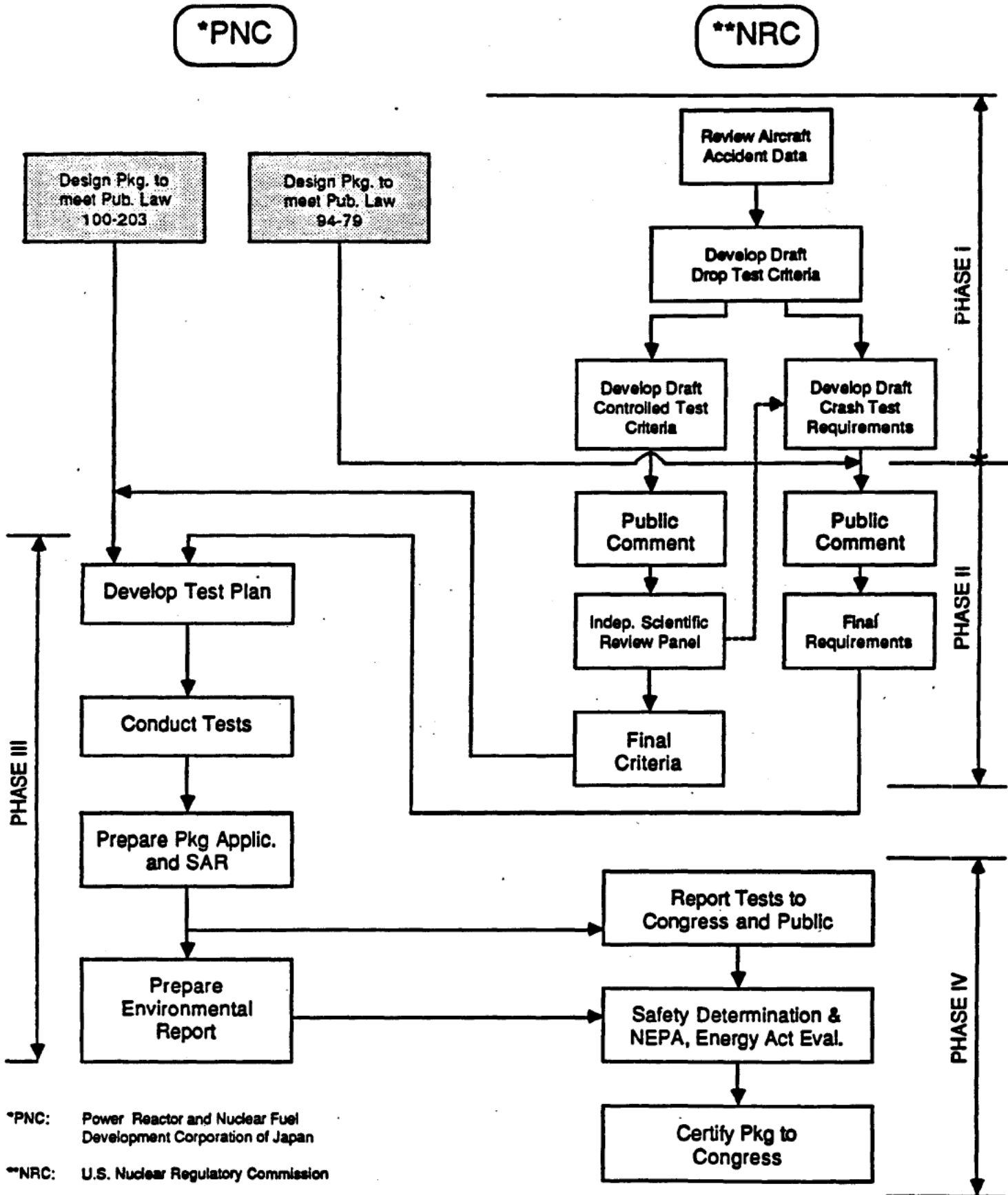


FIGURE 1

Appendix A

TESTING AND ADMINISTRATIVE PROGRAM FOR CERTIFYING PLUTONIUM AIR TRANSPORT PACKAGES

Phase One

Draft Criteria Development

- | <u>Task No.</u> | <u>Task Description</u> |
|-----------------|--|
| 1. | Compile and Evaluate Aircraft Accident Data |
| 2. | Develop Draft Drop Test Criteria |
| 3. | Develop Draft Crash Test Requirements |
| 4. | Develop Draft Controlled Test Criteria |
| 5. | Develop cost/schedule estimates for Phases Two, Three and Four |
| 6. | Conduct Feasibility Review |

Schedule

- A. Interim Reports addressing Tasks 2, 3 and 5 above by July 15, 1989.
- B. At the request of PNC, but not prior to July 15, 1989, a technical briefing addressing the status of Task 4 above.
- C. Final Report addressing Phase One by September 30, 1990.
- D. A written explanation of expenditures on Phase One by March 31, 1991.

Cost

Estimated Total Cost:	\$3,500K
USNRC -	\$ 500K
Contractor -	\$3,000K

Appendix B

FUNDING SCHEDULE

PNC agrees to fund \$3,500,000 under the following schedule for Phase One:

- | | |
|---------------------|-------------------|
| 1. Letter of Intent | November 30, 1988 |
| 2. \$2.3 Million | December 20, 1988 |
| 3. \$1.2 Million | May 15, 1989 |

Appendix C

TESTING AND ADMINISTRATIVE PROGRAM FOR
CERTIFYING PLUTONIUM AIR TRANSPORT PACKAGES

Designation of USNRC and PNC

Staff Contacts

Oral or written communication between PNC and USNRC is restricted to the following individuals:

NRC

Robert F. Burnett, Director
Division of Safeguards and
Transportation, NMSS
(301) 492-3365

Charles E. MacDonald, Chief
Transportation Branch
Division of Safeguards and
Transportation, NMSS
(301) 492-3382

John R. Cook, Section Leader
Information and Projects Section
Transportation Branch
Division of Safeguards and
Transportation, NMSS
(301) 492-0458

Mailing Address (for all individuals):

OWFN - 4E4
U.S. Nuclear Regulatory Commission
Washington, DC 20555
FAX Number: (301) 492-0259

PNC

Hiromasa Nakano, Director
Nuclear Fuels Development Division
Division
(03) 586-3311

Hidetoshi Ohtake, General Manager
Nuclear Fuels Development Division
Transportation Technology
Development Section
(03) 586-3311

Minoru Kubo
Nuclear Fuels Development Division
Transportation Technology
Development Section
(03) 586-3311


Nuclear Fuels Development Division
Transportation Technology
Development Section
(03) 586-3311

Tadatoma Yamaguchi, General Manager
International Corporation Office
(03) 586-3311

Oral or written communication between PNC and USNRC is restricted to the following individuals (continued):

PNC

Saburo Kikuchi
Policy and Planning Division
(03) 586-3311

[REDACTED]
Policy and Planning Division
(03) 586-3311

[REDACTED]
Plutonium Fuel Division
Fuel Technology Development
Section, General Manager
(292) 82-1111

[REDACTED]
Plutonium Fuel Division
Fuel Technology Development
Section
(292) 82-1111

Mailing Address for Above
Individuals:

Power Reactor and Nuclear Fuel
Development Corporation
1-9-13 Akasaka Minato-ku
Tokyo, Japan 166
FAX Number: (03) 505-1553

Takao Yagi
PNC Washington Office
Power Reactor and Nuclear Fuel
Development Corporation
2600 Virginia Avenue., N.W.
Suite 715
Washington, DC 20037
(202) 338-3770
FAX Number: (202) 333-1097

SCIENCE AND TECHNOLOGY AGENCY

PRIME MINISTER'S OFFICE

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〒100 東京都千代田区霞が関2-2-1

2-2-1 Kasumigaseki, Chiyoda-ku, Tokyo 100, JAPAN

Telephone: Tokyo (03)581-5271

Telex: C2226720 STASGDJ

November 9, 1988

Mr. Victor Stello Jr.
Executive Director for Operations,
Nuclear Regulatory Commission

Dear Mr. Stello,

I am writing to inform you of the legal status of the Power Reactor and Nuclear Fuel Development Corporation (PNC). PNC was established by the Japanese Government in 1967. The basic role of PNC is defined by the Atomic Energy Basic Law of 1955, and its authority and the scope of its activities are stipulated by the Power Reactor and Nuclear Fuel Development Corporation Law of 1967.

The main role of PNC is to implement such national projects in the field of nuclear energy as developments of FBRs and ATRs (advanced thermal reactors), uranium enrichment, reprocessing of spent fuel and utilization of recovered plutonium.

Whole budget of PNC is approved every year by the Japanese Diet, and its activities are mostly financed by the Government.

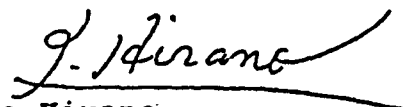
PNC is directly supervised by the Science and Technology Agency in the Prime Minister's Office.

In addition to the role of PNC described above, promoting international cooperation in the field of nuclear energy is also an important role of PNC. PNC has been actively cooperating with many foreign countries including U.S.A. and participating in the activities of IAEA and OECD/NEA.

In conclusion, PNC is a semi-governmental organization and an important arm of the Government of Japan to promote the peaceful uses of nuclear energy.

I hope this information is useful for your consideration.

Sincerely Yours,



Takuya Hirano
Director General
Atomic Energy Bureau
Science and Technology Agency

Enclosure 2