

No. 16582

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**UNITED STATES OF AMERICA  
and  
JAPAN**

**Joint determination for reprocessing of special nuclear material of United States origin (with joint communiqué). Signed at Washington on 12 September 1977**

*Authentic text: English.*

*Registered by the United States of America on 27 April 1978.*

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**ÉTATS-UNIS D'AMÉRIQUE  
et  
JAPON**

**Décision commune en vue du retraitement de matières nucléaires spéciales en provenance des États-Unis (avec communiqué conjoint). Signée à Washington le 12 septembre 1977**

*Texte authentique : anglais.*

*Enregistrée par les États-Unis d'Amérique le 27 avril 1978.*

## JOINT DETERMINATION<sup>1</sup> BETWEEN THE UNITED STATES OF AMERICA AND JAPAN FOR REPROCESSING OF SPECIAL NUCLEAR MATERIAL OF UNITED STATES ORIGIN

On the basis of the understandings, principles and intentions set out in the Communiqué of the Government of the United States of America and the Government of Japan issued on September 12, 1977, and in view of Japan's continued adherence to the Treaty on the Non-Proliferation of Nuclear Weapons<sup>2</sup> and its undertakings therein with respect to safeguards, the limited amount of plutonium involved, the carefully monitored experimental character of the process, and the provisions for the application of effective safeguards by the International Atomic Energy Agency and for advanced safeguards experimentation,

1. The Government of the United States of America and the Government of Japan hereby jointly determine pursuant to Article VIII, C, of the Agreement for Cooperation between the Government of the United States of America and the Government of Japan Concerning Civil Uses of Atomic Energy of February 26, 1968,<sup>3</sup> as amended,<sup>4</sup> that the provisions of Article XI of that Agreement may be effectively applied to the reprocessing in the Tokai Facility of the Power Reactor and Nuclear Fuel Development Corporation of irradiated fuel elements containing up to 99 tonnes of fuel material received from the United States;

2. No determination is now being made as to whether safeguards can be effectively applied to Purex reprocessing plants in general;

3. There is no change in the requirement for subsequent determinations as to whether the provisions of Article XI may be effectively applied to the reprocessing or other alteration in form or content of any special nuclear material or irradiated fuel elements subject to Article VIII, C, beyond the irradiated fuel elements referred to in paragraph 1 above. However, the United States would be prepared to enter into an affirmative joint determination, if the mode of operating the said facility is converted to full-scale coprocessing, subject to the requirements of its laws and mutual agreement on the scope and character of the coprocessing operation.

September 12, 1977.

For the Government  
of the United States of America:

[Signed — Signé]<sup>5</sup>

[Signed — Signé]<sup>6</sup>

For the Government  
of Japan:

[Signed — Signé]<sup>7</sup>

[Signed — Signé]<sup>8</sup>

<sup>1</sup> Came into force on 12 September 1977 by signature.

<sup>2</sup> United Nations, *Treaty Series*, vol. 729, p. 161.

<sup>3</sup> *Ibid.*, vol. 683, p. 179.

<sup>4</sup> *Ibid.*, vol. 836, p. 315, and vol. 937, p. 303.

<sup>5</sup> Signed by Gerard C. Smith — Signé par Gerard C. Smith.

<sup>6</sup> Signed by Robert W. Fri — Signé par Robert W. Fri.

<sup>7</sup> Signed by Sosuke Uno — Signé par Sosuke Uno.

<sup>8</sup> Signed by Fumihiko Togo — Signé par Fumihiko Togo.

## JOINT COMMUNIQUÉ

September 12, 1977

## I

Negotiations between the Governments of Japan and the United States of America concerning the operation, in accordance with the Agreement for Cooperation between the Government of Japan and the Government of the United States of America Concerning Civil Uses of Atomic Energy of February 26, 1968, as amended (hereinafter referred to as "the Agreement for Cooperation"), of the Tokai Reprocessing Facility (hereinafter referred to as "the Facility") were held in Tokyo from August 29 to September 1, 1977. The Japanese delegation was led by H.E. Mr. Sosuke Uno, Minister of State for Science and Technology and Chairman of the Atomic Energy Commission, while the United States delegation was headed by H.E. Ambassador Gerard Smith, Special Representative for Non-Proliferation Matters. The negotiations were conducted in a frank and friendly atmosphere throughout the session.

## II

The United States recognizes the importance of the development of nuclear energy for the energy security and economic development of Japan. The United States strongly supports continued development of peaceful uses of nuclear energy in Japan. The United States is prepared to cooperate with Japan for the purpose of assuring that Japan's long-term nuclear energy programs, including its breeder research and development program, not be prejudiced. The United States is prepared to work with Japan and other countries to establish arrangements for assured supply of natural and low enriched uranium. The United States affirms that its policy is to accord Japan non-discriminatory treatment in the field of the peaceful uses of nuclear energy.

Japan and the United States will cooperate in evaluating the nuclear fuel cycle and the future role of plutonium. They share the view that plutonium poses a serious proliferation danger, that its recycling in light water reactors is not ready at present for commercial use, and that its premature commercialization should be avoided. They equally share the view that, if separation of plutonium for research and development work on fast breeder reactors and other advanced reactors is carried out, it should be at a rate not exceeding actual plutonium needs for such purposes.

Both Japan and the United States intend to defer decisions relating to the commercial use of plutonium in light water reactors at least during the International Nuclear Fuel Cycle Evaluation Program (INFCEP), which is expected to continue for two years. Japan plans to do related research and development work involving several kilograms of plutonium during this period. Furthermore, Japan and the United States do not intend to undertake any major moves regarding additional reprocessing facilities for plutonium separation during the above-mentioned period. Thereafter, when making decisions on such facilities, they intend to take into account the outcome of the INFCEP, including spent fuel storage possibilities and other technical and institutional alternatives to reprocessing.

## III

Taking into account both immediate practical considerations and the desire of the parties to identify fuel cycles that are as proliferation resistant as possible, the parties reached an understanding that the operation of the Facility will be guided, for an initial period of two years, by the following principles, in accordance with the relevant laws and regulations of Japan:

1. The Facility will process up to 99 tonnes of U.S.-origin spent fuel. The major portion of this spent fuel will be processed in the scheduled mode to prove out plant design and to preserve

Japan's warranty rights. Some of this spent fuel may be used for the experimental coprocessing described in paragraph 4 below.

2. Japan intends to defer, during the initial period of operation, the construction of the plutonium conversion facility scheduled to be attached to the Facility.

3. The United States is prepared to consider with Japan on an annual basis Japanese plutonium requirements for advanced reactor research and development and to seek ways to ensure that any shortfalls of plutonium resulting from deferral of the construction of the plutonium conversion facility referred to in the preceding paragraph will not entail unnecessary delay in the Japanese program.

4. Experimental coprocessing will be undertaken in the Operational Test Laboratory (OTL) at the Facility and in other facilities, during the period when the main Facility is operating in the scheduled mode. The results of this experimental work will be made available to INFCEP in support of the INFCEP effort to identify fuel cycles that are as proliferation resistant as the "once through" fuel cycle.

5. At the end of the initial period of operation, the mode of operating the Facility will be promptly converted from conventional reprocessing to full-scale coprocessing, if such coprocessing is agreed by the two Governments to be technically feasible and effective as a result of the experimental work in the OTL and in the light of the results of INFCEP. The necessary modifications of the Facility will be carried out in such a way as to assure that the expenditures and delays involved are kept to the minimum consistent with fulfilling the purposes of these principles, and that the operation of the Facility may start expeditiously in the coprocessing mode.

6. The International Atomic Energy Agency (IAEA) will be afforded full opportunity to apply safeguards at the Facility, including continuous inspection, in accordance with the relevant existing and future international agreements. Japan is willing to improve the safeguardability and physical security at the Facility, and for this purpose is prepared to cooperate with the IAEA in the testing of advanced safeguards instrumentation, and to make timely preparations to facilitate the use of such instrumentation in the initial period. The United States is prepared to participate in this safeguards testing through agreed means. Japan and the United States will promptly consult with the IAEA to facilitate implementation of this testing program. The results of this safeguards experimentation will be made available to INFCEP.

#### IV

On the basis of the understandings, principles and intentions set out above, and in view of Japan's continued adherence to the Non-Proliferation Treaty and its undertakings herein with respect to safeguards, the limited amount of plutonium involved, the carefully monitored experimental character of the process, and the provisions for the application of effective safeguards by the IAEA and for advanced safeguards experimentation, a joint determination has been made pursuant to Article VIII, C, of the Agreement for Cooperation that the provisions of Article XI of that Agreement may be effectively applied to the reprocessing at the Facility of irradiated fuel elements containing up to 99 tonnes of fuel material received from the United States.

Japan and the United States will consult on a regular basis, or at the request of either of the parties, on the implementation of the above-mentioned matters and on any other matters related to the Agreement for Cooperation between the two countries.

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