



DEPARTMENT OF STATE

Washington, D.C. 20520

DEC 8 1978

JAPAN

XSNM-1291, XSMN-1300,
XSNM-1302, XSNM-1303,
XSNM-1304, XSNM-1315,
and XSNM-1365

TERA ~~FILE~~

BUREAU OF OCEANS AND INTERNATIONAL
ENVIRONMENTAL AND SCIENTIFIC AFFAIRS

XSNM 01300

70-3852

MEMORANDUM FOR JAMES R. SHEA
NUCLEAR REGULATORY COMMISSION

Enclosed is an Executive Branch analysis covering seven license applications for the export of low-enriched uranium to Japan. In accordance with P.L. 95-242, the analysis explicitly addresses how the requirements of Section 126 a.(1) of the Atomic Energy Act are met, including the specific criteria of Sections 127 and 128, as well as certain additional factors, envisaged by Section 126 a. (1).

The Executive Branch, on the basis of its review of these cases, has concluded that the requirements of the Atomic Energy Act and P.L. 95-242 have been met and that the proposed exports would not be inimical to the common defense and security of the United States. Moreover, Japan has adhered to the provisions of its Agreement for Cooperation with the United States. Therefore the Executive Branch recommends issuance of the requested export licenses.

Louis V. Nosenzo
Deputy Assistant Secretary

Enclosure:
As stated.

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EXPORT/IMPORT
AND
INTERNAT'L SEGRS

JAPAN -- EXPORT LICENSE APPLICATION ANALYSES

Ultimate Consignee State:	Japan
Type of Material:	Low-Enriched Uranium
Application Numbers:	A. XSNM-1291
	B. XSNM-1300
	C. XSNM-1302
	D. XSNM-1303
	E. XSNM-1304
	F. XSNM-1315
	G. XSNM-1365

B. XSNM-1300

Transaction: The export to Japan of 264 kilograms of U-235 contained in 9,955 kilograms of uranium in the form of uranium hexafluoride enriched to a maximum of 2.65 percent U-235

Applicant: Mitsubishi International Corporation

Applicant's Reference: HSA-5478-06

Date of Application: March 30, 1978

Purpose of the Export

This low-enriched uranium will be used to fabricate fuel elements for reload of the Kansai Electric Power Co., Inc.'s Fukushima Mihama nuclear power plant, Unit 2, a 470 megawatt electric pressurized water reactor which began operation in 1972.

The enriched uranium hexafluoride will be shipped to the Mitsubishi Nuclear Fuel Co., Ltd., Japan for conversion to uranium dioxide, pelletization and fabrication into fuel assemblies. Shipment of this material is scheduled for March 1979.

JAPAN - EXPORT LICENSE APPLICATION ANALYSIS

1. Applicable Agreement for Cooperation

The proposed exports are subject to all of the terms and conditions 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, which entered into force on July 10, 1968. In each case, this has been confirmed by letters from the Embassy of the Government of Japan, copies of which follow the description of each license application.

Japan has adhered to the provisions of its Agreement for Cooperation with the United States.

2. Extent to Which Export Criteria Are Met

A. Section 127 Criteria

As provided in Section 127 of the Atomic Energy Act, the following criteria govern exports for peaceful nuclear uses from the United States of source material, special nuclear material, production or utilization facilities, and any sensitive nuclear technology:

Criterion (1)

"IAEA safeguards as required by Article III(2) of the Treaty will be applied with respect to any such material or facilities proposed to be exported, to any such material or facilities previously exported and subject to the applicable Agreement for Cooperation, and to any special nuclear material used in or produced through the use thereof."

Japan is a Party to the Treaty on the Non-Proliferation of Nuclear Weapons and deposited its instrument of ratification on June 8, 1976. This Japan/IAEA Safeguards Agreement pursuant to the NPT entered into force on December 2, 1977. Therefore, it is the Executive Branch view that criterion (1) is met.

Criterion (2)

"No such material, facilities, or sensitive nuclear technology proposed to be exported or previously exported and subject to the applicable Agreement for Cooperation, and no special nuclear material produced through the use of such materials, facilities, or sensitive nuclear technology, will be used for any nuclear explosive device or for research on or development of any nuclear explosive device."

Pursuant to Article X A (2) of the Agreement, Japan has guaranteed that no material or equipment transferred thereunder and no special nuclear material produced therefrom, will be used for atomic weapons, or for research or development of atomic weapons, or for any other military purpose. Japan, as a party to the NPT, has pledged not to manufacture or otherwise acquire any nuclear weapon or other nuclear explosive devices. Further, in accordance with the Safeguards Agreement, Japan is precluded from engaging in any research and development on any nuclear explosive device involving any US-supplied material or facilities or any special nuclear material derived therefrom.

Since these commitments will apply to the proposed export and to any special nuclear material produced through its use, it is the view of the Executive Branch that criterion (2) is met.

Criterion (3)

"Adequate physical security measures will be maintained with respect to such material for facilities proposed to be exported and to any special nuclear material used in or produced through the use thereof. Following the effective date of any regulation promulgated by the Commission pursuant to Section 304(d) of the Nuclear Non-Proliferation Act of 1978, physical security measures shall be deemed adequate if such measures provide a level of protection equivalent to that required by the applicable regulations."

A USG physical security review team visited Japan in July 1977 to follow up surveys made by security teams in June 1975 and February 1976. During the 1977 survey, the Team met with concerned officials of the Government of Japan and visited a number of typical nuclear facilities including the Kansai Electric Power Company's Tsuruga Facility where three Westinghouse PWR reactors are located. The Team determined that Japanese physical security measures met as a minimum the levels envisaged by INFCIRC/225.

On September 22, 1978, the Ministry of Foreign Affairs of Japan provided the following assurance to the Embassy of the United States in Tokyo:

"The Government of Japan confirms that the maintenance of physical protection measures providing as a minimum a level of protection comparable to that set forth in IAEA document INFCIRC/225/Rev. 1 with respect to nuclear materials and facilities exported from the United States to Japan and with respect to nuclear material used in or produced through the use of such materials and facilities, conforms to the policy of the Government of Japan, and that adequate physical protection measures as necessary are, and will be, implemented in accordance with the relevant laws and regulations and also through the administrative actions by the governmental authorities concerned with respect to the aforesaid materials and facilities. It is the understanding of the Government of Japan that as from the date of this note verbale, the United States Government does not intend to request the Government of Japan on a case-by-case basis to make written confirmation concerning physical protection in connection with each case of license application for the exports of nuclear materials."

On the basis of the Physical Security Review Team visits and the assurance from the Government of Japan, the Executive Branch has determined that the physical security measures maintained in Japan with respect to nuclear material and

facilities are as a minimum compatible with the level of protection envisaged by IAEA INFCIRC/225/Rev. 1 and are therefore adequate for the material covered by these license applications.

Therefore, it is the view of the Executive Branch that criterion (3) is met.

Criterion (4)

"No such materials, facilities, or sensitive nuclear technology proposed to be exported, and no special nuclear material produced through the use of such material, will be retransferred to the jurisdiction of any other nation or group of nations unless the prior approval of the United States is obtained for such retransfer. In addition to other requirements of law, the United States may approve such retransfer only if the nation or group of nations designated to receive such retransfer agrees that it shall be subject to the conditions required by this section."

Article X(A)(3) of the 1968 U.S.-Japan Agreement for Cooperation stipulates that: "No material, including equipment and devices, transferred to the Government of Japan or to authorized persons under its jurisdiction pursuant to this Agreement or the superseded Agreement will be transferred to unauthorized persons or beyond the jurisdiction of the Government of Japan, except as the United States Commission may agree to such a transfer to another nation or international organization, and then only if, in the opinion of the United States Commission, the transfer of the material is within the scope of an Agreement for Cooperation between the Government of the United States...and the other nation or international organization."

Article VIII E. provides that: "Special nuclear material produced through the use of material transferred to the Government of Japan or to authorized persons under its jurisdiction pursuant to this Agreement or the superseded Agreement may be transferred to any other nation or international organization provided that such nation or international organization has an appropriate agreement for cooperation with the Government of the United States of America or guarantees the use of such special nuclear material for peaceful purposes under safeguards acceptable to the Parties."

While it is the U.S. position that Article VIII E. accords the United States the equivalent of a consent right, the provision does not explicitly stipulate whether the U.S. or the other party is responsible for making the determination whether an "appropriate" Agreement for Cooperation exists. (This is more than a pro forma finding that an agreement exists, since the word "appropriate" conveys the intent that the contemplated transfer is fully within the scope of the agreement.)

However, it should be noted that the only way in which special nuclear material covered by article VIII E could

become available for transfer through Japanese reprocessing of U.S.-supplied source or special nuclear material. So long as the produced material remains in the spent fuel it is not separable from the U.S.-supplied material, which is subject to the provisions of Article XA.(3).

Therefore, it is the Executive Branch view that, as the U.S. has the right of prior approval over retransfer of U.S.-supplied material and the equivalent for material produced through the use of U.S. material, criterion (4) is met.

Criterion (5)

"No such material proposed to be exported and no special nuclear material produced through the use of such material will be reprocessed, and no irradiated fuel elements containing such material removed from a reactor shall be altered in form or content, unless the prior approval of the United States is obtained for such reprocessing or alteration."

Article VIII C. of the U.S. - Japan Agreement for Cooperation provides that: "When any special nuclear material received from the United States of America requires reprocessing, or any irradiated fuel elements containing fuel material received from the United States of America are to be removed from a reactor and are to be altered in form or content, such reprocessing or alteration may be performed in Japanese facilities upon a joint determination of the Parties that the provisions of Article XI may be effectively applied, or in such other facilities as may be mutually agreed."

As no joint determination under Article VIII C. can be made without the agreement of the United States, and since the facilities to be used must be acceptable to the U.S. as one of the Parties, it is the Executive Branch view that criterion (5) is met.

B. Section 128 Criterion

Section 128 a.(1) of the Atomic Energy Act establishes the following additional criterion: "As a condition of continued United States export of source material, special nuclear material, production or utilization facilities, and any sensitive nuclear technology to non-nuclear-weapon states, no such export shall be made unless IAEA safeguards are maintained with respect to all peaceful nuclear activities in, under the jurisdiction of, or carried out under the control of such state at the time of the export."

As a Party to the NPT, Japan has accepted IAEA safeguards on all its nuclear activities thereby satisfying this criterion.

Criterion (6)

"No such sensitive nuclear technology shall be exported unless the foregoing conditions shall be applied to any nuclear material or equipment which is produced or constructed under the jurisdiction of the recipient nation or group of nations by or through the use of any such exported sensitive nuclear technology."

The proposed exports do not involve the transfer of sensitive nuclear technology. Criterion (6) is, therefore, not applicable.

3. Additional Factors

A. Safeguards Implementation

The IAEA Secretariat has noted in its Special Safeguards Implementation Report that with regard to nuclear material subject to IAEA safeguards, while some deficiencies exist in the system, no diversion of a significant quantity of nuclear material was detected in any of the 45 states in which inspections were carried out. Although recognizing the need to correct existing deficiencies in safeguard implementation, the Executive Branch has no reason to believe that the IAEA Secretariat's report is not valid. In the light of this and other factors associated with the proposed export, the Executive Branch believes the framework of commitments, assurances, and safeguards is adequate for the purpose of this export.

B. Special Non-Proliferation and Other Foreign Policy Considerations

None.

4. Inimicality Judgment

Based on review of the proposed exports, it is the judgment of the Executive Branch that the proposed exports will not be inimical to the common defense and security, and that the licenses should be issued.