

POLICY ISSUE NOTATION VOTE

May 8, 2001

SECY-01-0082

FOR: The Commissioners

FROM: Janice Dunn Lee, Director
Office of International Programs

SUBJECT: PROPOSED LICENSE TO EXPORT LOW-ENRICHED URANIUM TO
JAPAN FOR USE AS RELOAD FUEL IN THE FUGEN ADVANCED
THERMAL REACTOR (APPLICATION NO. XSNM03182)

PURPOSE:

To request Commission approval of a license to Framatome ANP Richland, Inc. (Framatome ANP) authorizing the export to Japan of low-enriched uranium for use as reload fuel in the Fugen Advanced Thermal Reactor (ATR). This application is being referred to the Commission in accordance with 10 CFR 110.40(b)(4) because the facility is called an advanced thermal reactor.

DISCUSSION:

On January 31, 2001, Framatome ANP applied for a license (Attachment 1) to export to Japan 2,140 kilograms of uranium containing 42 kilograms of uranium-235, enriched to a maximum of 1.92 percent. The material, in the form of uranium dioxide powder, will be fabricated into fuel at Nuclear Fuel Industries, Ltd., Tokai Works, for eventual loading into the Fugen ATR. The Fugen ATR is a 165 Mwe heavy water moderated, light water cooled reactor, owned and operated by the Japan Nuclear Cycle Development Institute (JNC). Since commencing operation in 1979, Fugen ATR has been used to develop new fuels and improve operation and maintenance techniques. It was the first thermal reactor in the world to use mixed-oxide fuel on a full core scale, but is now nearing the end of its operational life. The U.S. supplied nuclear fuel and equipment prior to and during its first years of operation, and most recently, the NRC issued a license (XSNM03149) on September 21, 2000, authorizing Transport Logistics International to export 300 kilograms of uranium containing 57.67 kilograms of U-235 enriched to a maximum of 0.79 percent for use as reload fuel in the Fugen ATR (see SECY-00-0190).

Contact: J.E. Owens, OIP
415-3684

In response to NRC's request for views on the proposed export, the Executive Branch, in a letter dated April 9, 2001 (Attachment 2), recommends that the license be approved. The letter notes that the proposed export to Japan would take place pursuant to the 1988 U.S.-Japan Agreement for Peaceful Nuclear Cooperation as confirmed in Japan Foreign Ministry Note No. 641 dated April 2, 2001. The Note also confirms that the proposed recipients are authorized persons in Japan. A copy of the Japanese Note is also attached. The Executive Branch judges that the proposed export will not be inimical to the common defense and security of the United States, and is consistent with the provisions of the Atomic Energy Act of 1954, as amended.

International Safeguards

Japan is a party to the Non-Proliferation Treaty and, as such, accepts IAEA safeguards on all source and special nuclear material in its nuclear activities. IAEA Facility Attachments are in force for the relevant Japanese facilities including Nuclear Fuel Industries and Fugen ATR.

Physical Protection

With regard to physical protection, NRC staff visited Japan in May 1997. The conclusion of this review was that Japan's physical protection program was consistent with the then-current version of INFCIRC/225 (i.e., Rev.3). Staff has reviewed subsequent information received to date, and has determined that there is no indication that the physical protection program has degraded in this country. In addition, staff has determined, on the basis of currently available information, that physical protection measures to protect against proliferation of nuclear weapons are in conformance with the current version of INFCIRC/225 (i.e., Rev.4).

Staff Review and Analysis of Other Information

The NRC staff has determined that the NRC licensing criteria contained in 10 CFR Part 110.42 are fully satisfied.

The staff closely and routinely monitors, through cable traffic and other means, nuclear non-proliferation-related activities and issues in and involving Japan. The staff is not aware of any concerns about Japan's commitment to full-scope international safeguards or its fulfillment of obligations to the U.S. under the U.S.-Japan Agreement for Peaceful Nuclear Cooperation.

CONCLUSION:

The staff concurs with the Executive Branch judgment that the proposed export would not be inimical to the common defense and security of the United States and is consistent with the provisions of the Atomic Energy Act of 1954, as amended by the Nuclear Non-Proliferation Act of 1978. The Office of the Executive Director for Operations concurs. The Office of General Counsel has no legal objection.

The staff also concludes that given the age, characteristics of and testing functions performed by the Fugen ATR, it no longer constitutes the type of "advanced" reactor envisioned in 10 CFR 110.40(b)(4), exports for which require Commissioner review. As such, if and when similar authorizations are requested in the future to export LEU for use as reload fuel in Fugen ATR, the

staff concludes they should be processed in the same manner as other requests for authorizations to export routine LEU reload fuel for Japanese power reactors.

RECOMMENDATION:

That the Commission authorize the issuance of the requested license to Framatome ANP for the export of LEU for use in the ATR Fugen in Japan. It is also recommended that if similar applications for the export of LEU reload fuel for the ATR Fugen are received in the future, the Commission authorize the NRC staff to issue licenses if after consulting with the Executive Branch and receiving the relevant assurances from the Government of Japan, it is determined that the provisions of the Atomic Energy Act, as amended, are met and the export will not be inimical to the common defense and security of the United States or unduly jeopardize public health and safety.

/RA by Ronald D. Hauber Acting For/

Janice Dunn Lee, Director
Office of International Programs

Attachments: 1. 01/31/01 Framatome ANP Export License Application
 2. 04/09/01 DOS Letter R.J.K. Stratford to J.D. Lee

APPLICATION FOR LICENSE TO EXPORT NUCLEAR MATERIAL AND EQUIPMENT

ESTIMATED BURDEN PER REQUEST TO COMPLY WITH THIS INFORMATION
COLLECTION REQUEST: 1.7 HOURS. THIS MANDATORY SUBMITTAL IS REVIEWED TO
ENSURE THAT THE APPLICABLE STATUTORY, REGULATORY, AND POLICY
CONSIDERATIONS ARE SATISFIED. FORWARD COMMENTS REGARDING BURDEN
ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6-F33), U.S.
NUCLEAR REGULATORY COMMISSION, WASHINGTON, D.C. 20555-0001, AND THE
PAPERWORK REDUCTION PROJECT (3150-0027), OFFICE OF MANAGEMENT AND
BUDGET, WASHINGTON, DC 20503.

(SEE INSTRUCTIONS ON REVERSE)

1. APPLICANT'S USE		a. DATE OF APPLICATION January 31, 2001		b. APPLICANT'S REFERENCE DLN:01:014		2. NRC USE		a. DOCKET NUMBER 11005252		b. LICENSE NO. XSNM03182					
3. APPLICANT'S NAME AND ADDRESS				RIS				RIS							
a. NAME Siemens Power Corporation						4. SUPPLIER'S NAME AND ADDRESS (Complete if applicant is not supplier of material)									
b. STREET ADDRESS (Facility Site) 2101 Horn Rapids Road						a. NAME									
c. CITY Richland			d. STATE WA		e. ZIP CODE 99352		b. STREET ADDRESS								
f. TELEPHONE NUMBER (Area Code - Number - Extension) 509-375-8380						c. CITY			d. STATE		e. ZIP CODE				
5. FIRST SHIPMENT SCHEDULED May 2001		6. FINAL SHIPMENT SCHEDULED May 2001		7. APPLICANT'S CONTRACTUAL DELIVERY DATE May 2001			8. PROPOSED LICENSE EXPIRATION DATE May 2002		9. U.S. DEP. OF ENERGY CONTRACT NO. (if known)						
10. ULTIMATE FOREIGN CONSIGNEE a. NAME Japan Nuclear Cycle Development Institute Fugen Nuclear Power Station b. STREET ADDRESS (Facility Site) 3 Myojin-cho, Tsuruga-shi c. CITY Fukui-ken				RIS				11. ULTIMATE END USE (Include plant or facility name) Reload Fuels for ATR Fugen USE CODE							
12. INTERMEDIATE FOREIGN CONSIGNEE a. NAME Nuclear Fuel Industries, Ltd. Tokai Works b. STREET ADDRESS Muramatsu, Tokai-mura, Naka-gun c. CITY Ibaraki-ken				RIS				13. INTERMEDIATE END USE Fuel Fabrication 11a. DATE REQUIRED: December 2001							
14. INTERMEDIATE FOREIGN CONSIGNEE a. NAME b. STREET ADDRESS c. CITY				RIS				15. INTERMEDIATE END USE 13a. DATE REQUIRED May 2001							
16. COM CODE				17. DESCRIPTION (Include chemical and physical form of nuclear material; give dollar value of nuclear equipment and components)				18. MAX ELEMENT WEIGHT		19. MAX. WT. %		20. MAX ISOTOPE WEIGHT		21. UNIT	
				Enriched Uranium Dioxide (UO ₂) Powder				2,140		1.92%		42		kgs	
22. COUNTRY OF ORIGIN SOURCE MATERIAL U.S.				23. COUNTRY OF ORIGIN - SNM WHERE ENRICHED OR PRODUCED U.S.				24. COUNTRIES WHICH ATTACH SAFEGUARDS (if known)							
25. ADDITIONAL INFORMATION ON CONSIGNEES, END USERS, AND PRODUCT DESCRIPTION (Use separate sheet of necessary)															
26. The applicant certifies that this application is prepared in conformity with Title 10, Code of Federal Regulations, and that all information in this application is correct to the best of his/her knowledge.															
27. AUTHORIZED OFFICIAL				a. SIGNATURE D. B. Nass				b. TITLE Senior Scientist							

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2001 FEB 2 - 2 AM 9:40



United States Department of State

Washington, D.C. 20520

April 9, 2001

Ms. Janice Dunn Lee
Acting Director, International Programs
United States Nuclear Regulatory Commission
Rockville, Maryland

Dear Ms. Lee:

I refer to the letter from your office dated February 6, 2001 requesting the views of the Executive Branch as to whether issuance of an export license in accordance with the application hereinafter described meets the applicable criteria of the Atomic Energy Act of 1954, as amended:

NRC No. XSNM03182—Siemens Power Corporation has applied for authorization to export to Japan 42 kilograms of U-235 contained in 2,140 kilograms of uranium enriched to a maximum of 1.92 percent in the form of uranium dioxide for reload of the 165 Mwe Fugen Advanced Thermal Reactor uranium/plutonium fueled reactor owned and operated by the Japan Nuclear Cycle Development Institute.

It is the view of the Executive Branch that the proposed export will not be inimical to the common defense and security of the United States, and is consistent with the provisions of the Atomic Energy Act of 1954, as amended.

The proposed export to Japan would take place pursuant to the 1988 Agreement for Cooperation Between the United States and Japan, as confirmed in Japan Ministry of Foreign Affairs Note No.641 dated April 2, 2001, a copy of which is enclosed.

On the basis of the foregoing, the Executive Branch recommends that the license be issued.

Sincerely,

Richard J. K. Stratford
Director
Nuclear Energy Affairs

Enclosure: as stated.

Attachment 2



FACSIMILE MESSAGE

US Embassy, Tokyo
Environment, Science and Technology (EST) Office
Tel: 81-3 3224-5498
Fax: 81-3 3224-5229

April 4, 2001

To: Robin DeLaBarre
Fax No.: 202-647-0775

From: Nelia Untalan *Nelia*

Subject: Copy of GOJ's Note Verbale Received

Number of pages including cover sheet: 3

Ref: State 26666

Dear Robin:

The following is a copy of a Note Verbale received from the Ministry of Foreign Affairs (MOFA) via fax. The original will be sent to you via pouch when it is received.

Note Verbale	Case Nos.	NRC Application No.
641/ASSN	552	XSNM03182

FYI only: Mr. Iwahashi of MOFA also included the following in his fax:

"We heard that this nuclear transfer will be started from the US facility about the middle of the next month. I understand that the US has enough time for its internal procedures to authorize this nuclear transfer. But the applicant of this transfer worries about whether the authorization would be in time, because this nuclear transfer is not for utilities, but for Japan Nuclear Fuel Cycle Development Institute. (They said this is not usual for the US Government, so it may take more time than usual. - I told them that these kinds of nuclear transfers are held a few times every year and that this is not unusual.)

Best regards -
~ Nelia

MINISTRY OF FOREIGN AFFAIRS
TOKYO, JAPAN

Translation

No. 641/ASSN

NOTE VERBALE

The Ministry of Foreign Affairs presents its compliments to the Embassy of the United States of America and has the honour to acknowledge the receipt of the Embassy's Note No. 060 dated February 14, 2001 concerning the notification of the intended transfer of items under the Agreement for Cooperation between the Government of Japan and the Government of the United States of America Concerning Peaceful Uses of Nuclear Energy (hereinafter referred to as "the Agreement"), pursuant to paragraph 3 of Article 2, thereof.

The Ministry has further the honour to confirm that, among the items listed in the Attachments to the said Note, the item of Serial No. 01/US/552 will be held subject to the Agreement upon its entry into the territorial jurisdiction of Japan and that the proposed recipients of the item are authorized persons in Japan.

Tokyo, April 2, 2001.