

~~CONFIDENTIAL~~

Westinghouse  
SECY-78-65A

February 2, 1978

## COMMISSIONER ACTION

For: The Commissioners

From: James R. Shea, Director  
Office of International Programs

Thru: Executive Director for Operations *FM 2 for L.V.G.*

Subject: APPROVAL OF URGENT LICENSE TO EXPORT MIXED OXIDE  
FUEL TO SWITZERLAND (APPLICATION XSNM-954)

Purpose: Commission review of proposed issuance of subject  
license to Westinghouse Electric Corporation.

Discussion: SECY-78-65, dated January 31, forwarded information  
pertaining to the proposed subject export and noted  
that:

1. The staff was seeking assurances, in coordination  
with State and DOE, that physical security at the  
Dessel facility in Belgium will be equivalent to  
the measures being taken at the MOL facility  
(outgoing cable at Appendix A);
2. The staff would forward its recommendation on the  
application upon receipt of such assurances;
3. If a license is not issued by February 3, the R&D  
program associated with this fuel and the related  
contribution to the INFCE would be set back about  
a year; and
4. The Swiss have on several occasions, including a  
recent letter from the Swiss Ambassador to the  
Chairman, expressed the importance and urgency  
Switzerland attaches to this license.

THIS DOCUMENT HAS BEEN DECLASSIFIED UNDER  
THE PROVISIONS OF EO 12958, DATED 4/17/95

By Authority of *[Signature]*

(Declassification Authority/Number)

Date of Declassification *Jan 6, 2006*

Assurances regarding the physical security at Dessel  
were received late Friday, January 27 (incoming cable  
at Appendix B). On the basis of these assurances,

Contact:

M.A. Guhin (492-7866)

M.R. Peterson (492-7984)

SUBJECT TO GENERAL DECLASSIFICATION SCHEDULE  
EXECUTIVE ORDER 11652 AUTOMATICALLY DECLASSIFIED  
AT TWO YEAR INTERVALS AND DECLASSIFIED ON 02/01/2000

NATIONAL SECURITY  
INFORMATION  
Unauthorized Disclosure Subject To  
Criminal Sanctions

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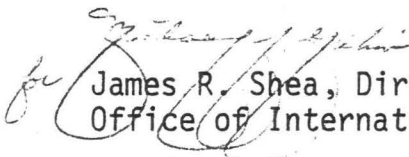
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Discussion: the staff believes that the license should be issued.  
(continued)

Copies of the staff conclusions and the proposed license are at Appendices C and D respectively.

Recommendation: That the proposed license be issued immediately.

Coordination: ELD has no legal objection. NMSS concurs. However, NMSS wishes to inform the Commission that it has not received country-specific information which permits it to make an independent conclusion as to the effectiveness of IAEA and EURATOM material control and accounting safeguards to deter and to detect national diversion in Belgium and Switzerland.

  
James R. Shea, Director  
Office of International Programs

Enclosures:

1. Appendix A - Cable dtd 1/24/78 (CONFIDENTIAL)
2. Appendix B - Cable dtd 1/27/78 (CONFIDENTIAL)
3. Appendix C - Staff conclusions dtd 2/2/78
4. Appendix D - Copy of proposed license

NOTE: Commissioner comments should be provided directly to the Office of the Secretary by c.o.b. Friday, February 3, 1978.

Commission staff office comments, if any, should be submitted to the Commissioners NLT February 2, 1978, with an information copy to the Office of the Secretary.

DISTRIBUTION

Commissioners  
Commission Staff Offices  
Exec Dir for Operations  
Secretariat

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PAGE 01  
ORIGIN NRC-07

STATE 019094

NFO OCT-01 EUR-12 ISO-00 OES-07 ACDA-12 PM-05 DOE-11  
SOE-02 CIAE-00 INR-07 IO-13 L-03 NSAE-00 NSC-05  
EB-08 DODE-00 SS-15 SP-02 SSO-00 INRE-00 /110 R

DRAFTED BY NRC: M PETERSON  
APPROVED BY OES/NET/EIC: D B HOYLE  
CDA: H WILLIAMS  
UR/RPE: W SALISBURY  
M/NPP: J NIX  
OE/ISA: W HAGIS

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M SECSTATE WASHDC  
O AMEMBASSY BRUSSELS IMMEDIATE

~~CONFIDENTIAL STATE 019094~~

MBASSY ALSO FOR USEC

. O. 11652: GDS

AGS: ENRG, TECH, BE, IT, SZ

SUBJECT: PHYSICAL SECURITY MEASURES AT DESSEL NUCLEAR  
FACILITIES

EF: BRUSSELS 0695

THE USG IS CURRENTLY REVIEWING TWO EXPORT APPLICATIONS  
INVOLVING THE PROPOSED INITIAL SHIPMENT OF PLUTONIUM TO  
BELGIAN FACILITIES AND EVENTUAL REEXPORT TO SWITZERLAND  
AND ITALY.

THE FIRST APPLICATION INCLUDES 51.086 KGS OF PLUTONIUM  
MIXED WITH NATURAL URANIUM TO BE FABRICATED INTO MIXED  
OXIDE FUEL ASSEMBLIES BY FRANCO-BELGE DE FABRICATION DE  
COMBUSTIBLES S.A. (FBFC) IN DESSEL, BELGIUM. THE COMPLETED  
FUEL ASSEMBLIES WILL BE REEXPORTED TO SWITZERLAND FOR  
EVENTUAL LOADING INTO THE BEZNAU I POWER REACTOR.

THE SECOND APPLICATION IS FOR 2.48 KGS OF PLUTONIUM AND  
1 KGS OF NATURAL URANIUM FOR CLEANUP AND ANALYSIS BY  
BELGONNUCLEAIRE, S.A., IN DESSEL AND EVENTUAL REEXPORT TO  
ITALY.

PRIOR TO TAKING FINAL ACTION ON THE PROPOSED EXPORTS,  
THE USG REQUESTS EMBASSY ASSISTANCE IN OBTAINING  
OFFICIAL GOB ASSURANCES THAT MEASURES FOR THE PHYSICAL  
PROTECTION OF NUCLEAR MATERIAL AT FBFC AND BELGONNUCLEAIRE  
WILL PROVIDE A DEGREE OF PROTECTION EQUIVALENT TO THAT  
CURRENTLY IN PLACE AND BEING INSTALLED AT THE BR-2 REACTOR  
SITE AT MOL (SEE REFTEL). WE ARE PARTICULARLY INTERESTED  
IN CONFIRMATION THAT THE DESSEL MEASURES ARE EQUIVALENT TO  
THOSE AT MOL WITH RESPECT TO (1) ONSITE SECURITY FORCES,  
(2) TIMELY OFFSITE RESPONSE FORCES, (3) REDUNDANT  
COMMUNICATIONS TO OFFSITE RESPONSE FORCES, (4) INTERIOR  
INTRUSION ALARM SYSTEMS, (5) ACCESS CONTROL MEASURES TO  
MATERIAL PROCESSING AND STORAGE AREAS, AND (6) PHYSICAL

BARRIERS PROTECTING MATERIAL PROCESSING AND STORAGE AREAS.

IN VIEW OF THE URGENCY OF THESE APPLICATIONS, AN  
EARLY RESPONSE WOULD BE APPRECIATED. WE UNDERSTAND THAT  
THE MATERIAL FOR SWITZERLAND MUST BE READY FOR SHIPMENT  
FROM US BY FEBRUARY 3 IN ORDER TO ARRIVE IN TIME FOR THE  
NEXT SCHEDULED LOADING ON THE BEZNAU I POWER REACTOR.  
OTHERWISE PROPOSED IRRADIATION WILL BE DELAYED BY MINIMUM  
ONE YEAR. VANCE

APPENDIX A

COPY

Department of State

TELEGRAM

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TION NRC-07

OCT-01 EUR-12 ISO-00 NSCE-00 ACDA-12 CIAE-00  
INR-07 IO-13 L-03 NSAE-00 EB-08 OES-07 SOE-02  
DODE-00 DOE-11 SS-15 SP-02 SSO-00 INRE-00 /100 W  
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AMEMBASSY BRUSSELS

SECSTATE WASHDC IMMEDIATE 4518

~~CONFIDENTIAL~~ BRUSSELS 01669

. 11652: GDS

S: ENRG, TECH, BE, IT, SZ

JECT: PHYSICAL SECURITY MEASURES AT DESSEL  
LEAR FACILITIES

: (A) STATE 19094: (B) BRUSSELS 695

HERPELS, DIRECTOR OF NUCLEAR AFFAIRS, MFA, INFORMED  
BY LETTER DATED JANUARY 26 THAT THE PHYSICAL SECURITY  
SURES TAKEN BY FRANCO-BELGE DE FABRICATION DE COMBUS-  
LES S.A. AND BY BELGONUCLEAIRE S.A., BOTH LOCATED AT  
SEL, BELGIUM, MEET THE REQUIREMENTS NORMALLY ENVISAGED  
H RESPECT TO THE SIX POINTS MENTIONED IN PARAGRAPH 4  
REFTEL. DETAILS CONCERNING THE NATURE OF THESE MEASURES  
L BE FURNISHED SUBSEQUENTLY IF WE SO WISH.

HERPELS ASSURED US IN FOLLOWON CONVERSATION THAT  
TECTIVE MEASURES TAKEN AT THE TWO FACILITIES WERE  
AN EVEN HIGHER LEVEL THAN THOSE PROVIDED AT THE  
SITE. OLSEN



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

February 2, 1978

Memorandum to the File

STAFF CONCLUSIONS REGARDING PROPOSED LICENSE TO EXPORT MIXED OXIDE FUEL  
TO SWITZERLAND (APPLICATION XSNM-954)

In June 1976 Westinghouse Electric Corporation filed an application for a license to export 51.086 kilograms of plutonium as plutonium oxide and 1,550 kilograms of natural uranium, to Switzerland.

The material, in the form of mixed oxide fuel rods and skeletons, will be shipped to Franco-Belge de Fabrication de Combustibles, S.A. (FBFC) Dessel, Belgium for final fabrication into four fuel assemblies to be used in the Beznau I reactor located in Baden, Switzerland. Beznau I is a 350 MWe pressurized water reactor which began regular power operation in December 1969. It is owned and operated by Nordostschweizerische Kraftwerke AG, Baden, Switzerland.

In response to our July 9, 1976 request for views, the Executive Branch has (1) concluded that issuance of the proposed license would not be inimical to the interests of the United States, including the common defense and security; and (2) confirmed that the material will be subject to all the terms and conditions of the Agreement for Cooperation between the United States and Switzerland, and to the US-EURATOM Agreement during the time it is fabricated and transiting Belgium.

The Executive Branch response notes that this fuel loading is part of an in-depth research program which will last from four to six years. The program will enable Switzerland to obtain first hand experience with the operation of mixed oxide fuel, to evaluate its various characteristics, and to determine the future suitability of mixed oxide fuel.

Among other things, the State Department memorandum further notes that, although it is not the current policy of the Executive Branch normally to support the export of kilogram quantities of plutonium, the Executive Branch recommendation on issuance of this export license is based upon considerations that:

1. The plutonium was brought into the US under an NRC import license substantially before development of the present policy generally limiting plutonium exports during the International Fuel Cycle Evaluation (INFCE) to less than kilogram quantities.

2. Switzerland is an NPT party which shares overall US non-proliferation objectives.
3. Switzerland is an active participant in the INFCE and has offered to make the results of this mixed-oxide work available through INFCE.
4. The development program is relatively small scale.
5. Switzerland plans to make no decision for at least six years on commercial use of mixed-oxide fuel in light water reactors until the results of the Beznau program are known. Furthermore, no major mixed-oxide development work will be undertaken before that time.

This application represents one of three pending cases involving exports of kilogram quantities of plutonium discussed in the NSC Ad Hoc Group memorandum of November 11, 1977. The memorandum notes the Group's recommendations that, while the US should make no new commitments to export significant quantities of plutonium during the course of the INFCE period, the three pending cases involving such quantities of plutonium should be approved as exceptions to current policy.

In the case at hand, the Group noted that, since the plutonium was brought into the US with the knowledge that subsequent re-export was planned, failure of the Executive Branch to recommend approval of the license would be considered grossly inequitable by the Swiss and would raise political and legal issues.

Switzerland and Belgium are parties to the NPT and are committed, under agreements for cooperation, to use US-supplied material for peaceful purposes only. The material will be subject to EURATOM safeguards while in Belgium and IAEA safeguards in Switzerland.

As noted in State's memorandum (1) the IAEA-EURATOM safeguards agreement has come into force and subsidiary arrangements are now being negotiated to bring IAEA verification into practical effect; and (2) the IAEA has the right to apply the verification procedures of the safeguards agreement prior to completion of the subsidiary arrangements.

The US-EURATOM Agreement provides for the reprocessing and retransfer of separated special nuclear material produced within the Community. However, the Commission will note that the material under this proposed license is not to be irradiated within the Community.

The US-Switzerland Agreement for Cooperation, as amended, (1) provides that US-supplied material or material produced through the use of US-supplied material may not be transferred beyond Switzerland without US approval; and (2) stipulates that any reprocessing of US-supplied material shall be performed in facilities acceptable to both parties upon a joint determination that safeguards may be effectively applied.

Based on a 1976 visit of a US physical security review team, subsequent exchanges, and reviews, the physical security programs in Belgium and Switzerland are considered adequate to protect trigger quantities of special nuclear material. As noted in the State Department memorandum, the US has assurance that Belgium and Switzerland are committed to providing a level of protection for their programs consistent with the recommendations in IAEA INFCIRC/225.

As required by Section 57 of the Atomic Energy Act and 10 CFR 70.31, we have concluded that the proposed license:

1. Would be subject to the Agreement for Cooperation between the United States and Switzerland, and the US-EURATOM Additional Agreement, as amended, during the time it is fabricating and transiting Belgium; and
2. Would not be inimical to the common defense and security of the United States.

  
R. Neal Moore

Senior Licensing Reviewer  
Export/Import and International  
Safeguards  
Office of International Programs



LICENSE EXPIRES

1 February 1979

NRC LICENSE NO.

**United States of America**  
Nuclear Regulatory Commission

XSNM-954

ant to the Atomic Energy Act of 1954, as amended, and the  
y Reorganization Act of 1974 and the regulations of the  
ar Regulatory Commission issued pursuant thereto, and in  
ce on statements and representations heretofore made by

the licensee, a license is hereby issued to the licensee author-  
izing the export of the materials and/or production or utilization  
facilities listed below, subject to the terms and conditions herein.

<p>LICENSEE</p> <p>Westinghouse Electric Corporation</p> <p>P.O. Box 1918 Pittsburgh, Pennsylvania 15230</p>	<p>ULTIMATE CONSIGNEE IN FOREIGN COUNTRY</p> <p>NAME Nordostschweizerische Kraftwerke A.G. (NOK)</p> <p>ADDRESS Baden, Switzerland</p>
<p>DIATE CONSIGNEE IN FOREIGN COUNTRY</p> <p>ranco-Belge de Fabrication de ombustibles S.A. (FBFC)</p> <p>Europiaan 12 2480 Dessel, Belgium</p>	<p>OTHER PARTIES TO EXPORT</p> <p>NONE</p>
<p>IT'S REF. NO.</p>	<p>COUNTRY OF ULTIMATE DESTINATION Switzerland</p>
<p>ITY</p>	<p>DESCRIPTION OF MATERIALS OR FACILITIES</p> <p>6 kilograms of onium</p> <p>Contained in reactor fuel rods</p> <p>kilograms of al uranium</p> <p>sions 1, 4, 5, 8, and 9 on page two of this license apply to this export.</p> <p>//////////////////// END //////////////////////////////////////</p>
<p>is license nor any right under this license shall be assign- erwise transferred in violation of the provisions of the ergy Act of 1954, as amended and the Energy Reorgan- of 1974.</p> <p>is subject to the right of recapture or control by Section Atomic Energy Act of 1954, as amended and to all of the isions of said Acts, now or hereafter in effect and to all and regulations of the Nuclear Regulatory Commission.</p>	<p>THIS LICENSE IS INVALID UNLESS SIGNED BELOW BY AUTHORIZED NRC REPRESENTATIVE</p> <p>Michael A. Guhin, Assistant Director Export/Import and International Safeguards Office of International Programs</p> <p>DATE OF ISSUANCE</p>

EXPORT LICENSE

APPENDIX D-1



**U.S. NUCLEAR REGULATORY COMMISSION  
EXPORT LICENSE**

**Conditions**

License Number XSNM-954

**Condition 1** — Licensee shall file with the Customs Officer or the Postmaster two copies, in addition to those otherwise required, of the Shipper's Export Declaration covering each export and mark one of such copies for transmittal to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. The following declaration should accompany or be placed on the Shipper's Export Declarations for such exports:

"This shipment is being made pursuant to specific license number (**specific license number**) filed at (**location of Customs office where license is filed**), on (**date license was filed**). This license expires on (**expiration date of license**), and the unshipped balance remaining on this license is sufficient to cover the shipment described on this declaration."

**Condition 2** — Exports authorized in any country or destination, except Country Groups Q, S, W, X, Y, and Z in Part 370, Supplement No. 1, of the Comprehensive Export Schedule of the U.S. Department of Commerce.

**Condition 3** — This license covers only the nuclear content of the material.

**Condition 4** — The material to be exported under this license shall be shipped in accordance with the physical protection requirements for special nuclear material in 10 CFR 73.

**Condition 5** — Special nuclear material authorized for export under this license shall not be transported outside the United States in passenger-carrying aircraft in shipments exceeding (1) 20 grams or 20 curies, whichever is less, of plutonium or uranium 233, or (2) 350 grams of uranium 235.

**Condition 6** — This license authorizes export only and does not authorize the receipt, physical possession, or use of the nuclear material.

**Condition 7** — The licensee shall complete and submit an NRC Form 741 for each shipment of source material exported under this license.

**Condition 8** — The licensee shall advise the NRC in the event there is any change in the designation of the company who will package the nuclear material to be exported under this license, or any change in the location of the packaging operation, at least three weeks prior to the scheduled date of export.

**Condition 9** — The plutonium authorized for export by this license shall not be transported by air.