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POLICY ISSUE

(Notation Vote)

March 10, 1986

SECY-86-81

For: The Commission

From: Victor Stello, Jr.
Acting Executive Director for Operations

Subject: SUBSEQUENT ARRANGEMENTS FOR THE TRANSFER OF SPENT MIXED-OXIDE FUEL TO SWEDEN AND TITLE TO SEPARATED PLUTONIUM TO WEST GERMANY

Purpose: To obtain Commission concurrence in the attached letter to the Department of Energy (DOE) concerning the subject requests.

Background: In 1982, DOE approved two subsequent arrangements involving the transfer of spent fuel from Sweden to EURATOM for reprocessing. These requests were reviewed by the Commission in SECY-82-222. The Swedes have now decided to relinquish title to this material, which is scheduled to be reprocessed soon at La Hague, to West Germany. In exchange for the title transfer, the West Germans have agreed, in addition to financial considerations, to transfer some irradiated mixed-oxide fuel to Sweden for storage and ultimate disposal. (The Swedes do not have the capability of reprocessing irradiated mixed oxide fuel.)

These transactions are being undertaken by the Swedes as a result of a 1980 decision to limit their nuclear program to a maximum of 12 plants and terminate this program in 2010. As a result of new legislation that became effective in the beginning of 1984, the requirement that spent fuel be reprocessed was lifted, leaving open the option of storage and ultimate disposal of irradiated fuel. We understand the Swedes are anxious to avoid having the spent fuel now at La Hague reprocessed as Swedish material, while the French will soon wish to put this material through La Hague to meet their planned production schedules.

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By: *C. F. [illegible]*

11/13/86 Change to Rev'd 10/21/86 Knowledge to Rev'd 9/12/86 Shue to Wimsley

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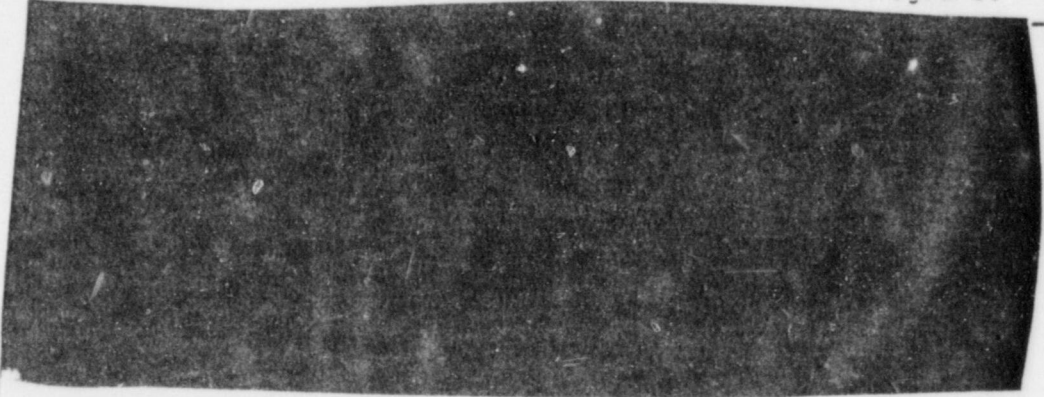
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Discussion:

Because these requests are interrelated, DOE forwarded them to NRC together for review with a single analysis on February 7 (Appendix A). The staff, by letter of February 25 (Appendix 3), advised DOE, in part, that portions of this analysis appeared to be classified. As a result of the staff's letter, the DOE reviewed this question with other Executive Branch agencies and DOE then submitted their revised pages for the analysis on February 23. The enclosed analysis is now considered to be unclassified by the Executive Branch and the NRC staff, and the revisions do not significantly affect the key points made in the analysis.

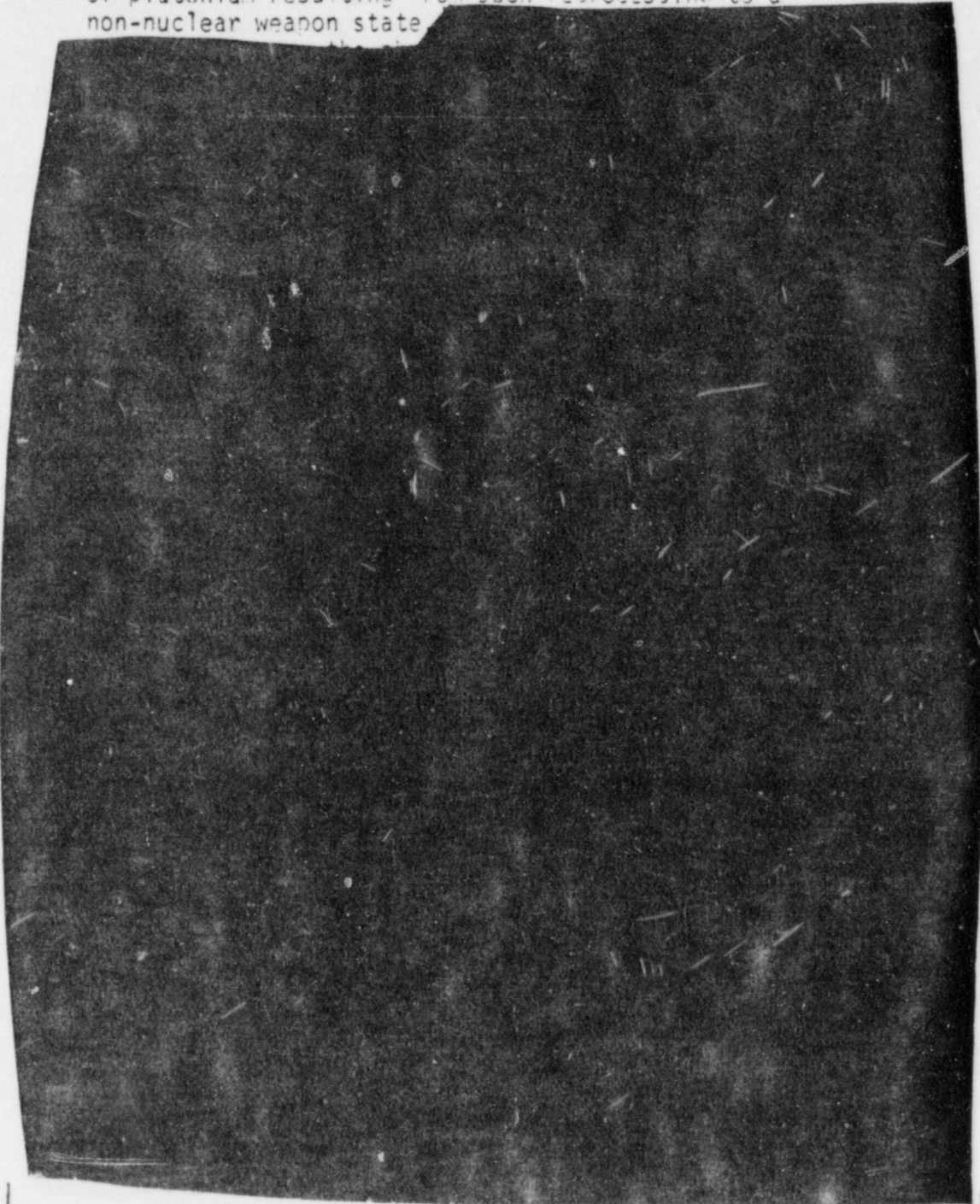
Material Involved

DOE's figures on the quantities of U.S.-origin material involved are not represented consistently throughout the documents provided in connection with these requests. (DOE also was advised of this in the staff's February 25 letter.) However, through close scrutiny of the information provided, the staff has determined that the material involved in the "title" transfer would consist of approximately 57,000 kilograms of uranium and 422 kilograms of produced plutonium contained in 246 irradiated power reactor fuel assemblies. The material involved in the mixed-oxide transfer to Sweden would consist of 217 fuel elements, 150 of which are of U.S.-origin and contain approximately 6,500 kilograms of uranium and 290 kilograms of produced plutonium. (DOE has agreed informally to revise its analysis to reflect properly the amount of material involved.) The additional material in the remaining 67 non-U.S.-origin fuel elements would contain approximately 2,993 kilograms of uranium and 130 kilograms of produced plutonium, bringing the transaction to a total of 9,293 kilograms of uranium and 410 kilograms of produced plutonium. While the Swedes, in their October 4, 1995 letter to DOE, assert that the transfer of mixed oxide involves "essentially the same amount" of plutonium, the staff notes there is actually a difference of 18 kilograms.



Statutory Requirements

Section 131b of the Atomic Energy Act sets forth the statutory requirements for U.S. approval of reprocessing of U.S. origin material or the ultimate retransfer of 500 grams of plutonium resulting from such reprocessing to a non-nuclear weapon state




The Commission

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Recommendation:

Scheduling:

The interagency review period expires March 20. However, early action by the Commission would be appreciated by DOE in view of the Swedish desire to complete these transactions as soon as possible and release the material now in France for reprocessing under title of the FRG.


Victor Stallo, Sr.
Acting Executive Director for Operations

Appendices:

- A. DOE memo dtd 2/7/86
- B. Ltr to Brush frm Shea dtd 2/25/86
- C. Ltr to Brush frm Shea dtd 11/7/85 (C)
- D. Staff Analysis dtd 2/19/86 (C)
- E. Proposed ltr to DOE

Commissioners' comments or consent should be provided directly to the Office of the Secretary by c.o.b. Tuesday, March 18, 1986.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT Thursday, March 13, 1986, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional time for analytical review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

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APPENDIX A

REFERRED TO DEPT. OF ENERGY

APPENDIX B

APPENDIX C



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

[REDACTED]

NOV 7 1985

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Mr. Peter Brush, Director
Office of Nuclear Nonproliferation Policy
U.S. Department of Energy
Washington, DC 20585

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By: C.A. Reed 11/13/86 change to Reed + 9/12/86 Shee to Shee

Dear Mr. Brush:

(U) The Commission has reviewed the proposed extension of the Tokai-Mura Agreement as described in your October 8 memorandum and supplemental material received October 11.

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(c) |

(U) The Commission also wishes to note that DOE's memorandum of October 8, 1985 forwarding this proposed subsequent arrangement states that no concerns were expressed by any of the reviewing agencies on earlier agreements. While the NRC had not objected to previous Tokai Mura extensions, we had expressed a number of concerns.

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Mr. Peter Brush

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- (U) The Commission notes once again that insufficient time has been provided to the concerned agencies to attempt to resolve outstanding issues prior to taking final action on an urgent DOE request of this type, which from experience requires more than the normal 20-day review period. This is especially so for this case, where a new analytical format on a complex issue has been used for the first time. If DOE hopes to meet its future deadlines, the Commission strongly recommends that future such cases be submitted earlier to allow time to resolve such issues.
- (U) Commissioner Asselstine does not believe that the Department of Energy has provided sufficient information for the NRC to reach a conclusion on the acceptability of the proposed extension of the Tokai-Mura Agreement.

(C) /

(C) /

Sincerely,

James R. Shea

James R. Shea, Director
Office of International Programs

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APPENDIX D

International Safeguards

Sweden

(U) Sweden is party to the NPT and has accepted full scope IAEA safeguards according to the provisions therein. The CLAB away-from-reactor storage facility has only recently come under IAEA safeguards. The Facility Attachment (FA) is under negotiation. Details on the application of IAEA safeguards are not available.

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The latest physical protection visits to Sweden, France and the FRG took place in March 1983, March 1980 and November 1985, respectively. Because our visit to France was made more than three years ago,

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By Authority Of: 10/11/86 *Conrad & Radman*

By: *H. K...*

11/15/80 *Conrad*

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Deletive *Elizabeth G. Ten Eyck*
(Name and Title)
Elizabeth G. Ten Eyck
Division of Safeguards, NISS

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the information in our files concerning it may be out of date.

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APPENDIX E