



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 1, 1993

MEMORANDUM FOR: The Chairman
Commissioner Rogers
Commissioner Curtiss
Commissioner Remick
Commissioner de Planque

FROM: Harold R. Denton, Director *HR Denton*
Office of International Programs

SUBJECT: FOREIGN RESEARCH REACTOR SPENT FUEL PROJECT

On March 26 I attended Edlow International Company's Foreign Research Reactor Spent Fuel Project conference. The focus of this gathering, which included representatives from the Departments of State and Energy, the General Accounting Office, Congress, and Edlow International (see attachment for agenda and participants), was to examine the implementation of the renewal of DOE's Off-Site Fuels Policy. This policy allows foreign research reactor spent fuel of U.S. origin to be returned to the U.S.

The major points made were as follows:

- DOE Secretary Watkins announced in late 1992 that DOE would renew its Off-Site Fuels Policy.
- A DOE report will be presented in two weeks to DOE Secretary O'Leary summarizing the policy for the new administration.
- Sandia National Laboratory has been contracted by DOE to prepare a study outlining the issues related to implementation of the policy. This study is to be ready in August 1993. DOE will provide guidance to Sandia, including emphasis on meeting environmental impact statement criteria without limiting the take-back option, and focusing on nonproliferation as an environmental benefit.
- A draft policy statement is being developed which addresses the problems of take-back regarding the differences between U.S. policies toward developed versus less developed nations and which addresses the situation of the three high flux research/test reactors in Europe which have operational requirements which cannot be met using the high density LEU fuels already developed by the U.S.
- The three European high flux research/test reactors probably will turn to Cogema for HEU if the U.S. will not export to them.

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April 1, 1993

- Foreign attendees raised the issue of fairness, since existing and planned DOE reactors would have continued access to HEU and do not have to convert.
- Congressman Schumer's staff indicated the Congressman intends to push the Executive Branch to either fund conversion or to halt shipments of HEU.
- Although this either/or approach was codified in the 1992 National Energy Security Act (H.R. 776), Argonne National Laboratory is not doing any studies on higher density replacement fuel for high flux research/test reactors, such as the three in Europe, as it would cost upwards of \$30 million to do so.
- The return policy is to have no time limits, includes all U.S.-origin fuel, and introduces incentives for countries to return it.
- Interim storage is still a problem, and the associated costs have not been worked out.
- For LEU research reactor fuel, the U.S. will offer to take it back for ten years, until the operators/countries can make arrangements for long-term storage, then the fuel will be returned to the buyer.

The next steps must be taken by DOE to approve the previous Administration's take-back policy and to proceed with the Sandia studies and eventual environmental impact statements. The NRC will ask to be consulted throughout the process.

Attachments:

1. 3/26/93 Conference Agenda
2. 3/3/93 DOE Letter VEAlessi to KHaack
3. 3/25/93 Presentation by AJMehta, DOE

cc w/attachments:

SECY
OGC
EDO
RES
NMSS
ACRS
PDR

EDLOW INTERNATIONAL COMPANY

FOREIGN RESEARCH REACTOR SPENT FUEL PROJECT

Agenda for Morning Session

Friday, March 26, 1993

- 9:30 Welcome for U.S. government representatives by Jack Edlow and Michael Goppel, Director, Euratom Supply Agency
- 9:40 Synopsis by Joe Egan of efforts to renew and implement renewal of the Off-Site Fuels Policy
- 10:00 Presentation by GKSS (Germany) concerning problems faced by reactor owners
- 10:20 Synopsis by Michael McClary (DOE) of DOE's current position on policy renewal, and DOE's proposed implementation plan for renewal
- 10:45 Roundtable Discussion between conference participants and:
1. Richard Stratford, U.S. Department of State
 2. Dr. Leonard Weiss, Majority Staff Director of the U.S. Senate Governmental Affairs Committee
 3. James Kessler, legislative staff of Congressman Charles E. Schumer
 4. Harold Denton, Director of International Relations, U.S. Nuclear Regulatory Commission
 5. Michael McClary, U.S. DOE Office of Arms Control and NonProliferation
 6. Representatives of the U.S. General Accounting Office (Gene Aloise, Mary Alice Hayward, and Patricia Metz)

Among the questions to be addressed:

- o What is the need for, and potential to achieve, legislation mandating or expediting renewal of the Policy?
- o What role will the State Department play in the renewal, and in diplomatic measures associated with renewal?
- o What are the perceived obstacles to prompt implementation of renewal, and how should they be addressed?
- o What can the reactor community do to assist the U.S. government in renewal efforts?
- o What can be done to ensure the errors of the past are not repeated in implementing renewal of the Policy?



Department of Energy
Washington, DC 20585

March 3, 1993

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Dr. Karsten Haack
Secretary of the Conference
c/o Research Reactor DR 3
Riso National Laboratory
P.O. Box 49
DK-4000 Roskilde
Denmark

Dear Dr. Haack:

This is in response to your letter of October 1, 1992, to the Secretary of Energy regarding renewal of the Department of Energy's expired Off-Site Fuels Policy.

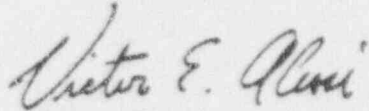
The Department has been reviewing the question of the acceptance of spent fuel from foreign research reactors for storage and ultimate disposal, taking into consideration the concerns of the reactor operators, as well as the Department's current policies relating to the handling of spent fuel. As you know, prompted by the change in the Nation's defense needs, the Department has decided to phase out its reprocessing activities. Also, as is the case with most other countries, the United States does not have, at present, the facilities to accommodate final disposal of spent nuclear reactor fuel.

However, the Department now proposes to renew its policy to receive the spent nuclear fuel that the United States has furnished to foreign research reactors. The Department is reviewing both the options and the process under which the proposed policy might be implemented. When the preferred options have been identified, the Department will determine the level of review required by the U.S. National Environmental Policy Act (NEPA). If an Environmental Assessment is appropriate, it could be prepared in approximately 6 to 8 months. If an environmental impact statement is needed, the NEPA process could be completed in approximately 2 to 3 years. Contemporaneous with the NEPA process, we will be undertaking a review of the costs attendant to such a proposal.

International cooperation in the Reduced Enrichment Research and Test Reactor Program has made a very valuable contribution to the nonproliferation of nuclear weapons, which is a benefit to all countries. We hope that this cooperation may continue.

You will be advised when the Department has completed the NEPA process, and made a final decision concerning renewal of the proposed policy.

Sincerely,

A handwritten signature in cursive script that reads "Victor E. Alessi".

Victor E. Alessi
Director
Office of Arms Control
and Nonproliferation
Office of the Secretary

**STATUS OF DOE ACTIONS
ON RENEWAL OF THE
FOREIGN RESEARCH REACTOR
SPENT NUCLEAR FUEL
ACCEPTANCE POLICY**

**A. "JEET" MEHTA
OFFICE OF SPENT NUCLEAR FUEL &
SPECIAL PROJECTS
25 MARCH 1993**

PRESENTATION OUTLINE

- Background - Actions since the lapse of the previous policy
- Current Activities

BACKGROUND

ENVIRONMENTAL ASSESSMENT (EA)

- Draft EA on renewal of the policy was issued for comment in early 1991. The EA and associated Finding Of No Significant Impact (FONSI) were criticized on a number of grounds.
 - Insufficient number of alternatives considered.
 - Non-specificity of ports and transportation routes.
 - Environmental effects inadequately addressed.

BACKGROUND - Continued

ENVIRONMENTAL ASSESSMENT - Continued

- Similar issues with NEPA documentation caused cancellation of the last shipment of spent nuclear fuel from Taiwan.
- Then, in 1992, Secretary Watkins announced the phase out of reprocessing. This invalidated a basic assumption of the proposed EA.

BACKGROUND - Continued

EXTERNAL SUPPORT

- On October 26, 1992, Secretary of State Eagleburger sent Secretary Watkins a letter urging renewal of the policy of accepting U.S. origin foreign research reactor spent nuclear fuel.
- On December 7, 1992, Arms Control and Disarmament Agency Director Lehman wrote Secretary Watkins, also urging a renewal of the policy.

BACKGROUND - Continued

DOE REPLY

- On December 24, 1992, Secretary Watkins replied to Secretary Eagleburger as follows:

"The Department now proposes to renew its policy to receive the spent nuclear fuel that this government has furnished to foreign research reactors. However, implementation of this proposal cannot occur until completion of, and a final decision under, the NEPA process, which we estimate could take as long as two to three years."

CURRENT ACTIVITIES

TASK ASSIGNMENT

- Responsibility for implementing Secretary Watkins' initiative has been assigned to the Office of Environmental Restoration and Waste Management (EM).
- Within EM, a new organization is in the process of being established to handle all issues related to DOE owned spent nuclear fuel, including the returned foreign research reactor fuel. This organization will probably be named the Office of Spent Fuel and Special Projects (OSF&SP).

CURRENT ACTIVITIES - Continued

EA PREPARATION

- Multiple planning sessions, development of a detail Plan of Action and definition of NEPA alternatives consistent with the Waste Management Programmatic EIS are ongoing.
- The OSF&SP officially tasked SANDIA to begin development of a new EA. This is to include:
 - Resolution of the comments on the draft EA.
 - Incorporation of lessons learned from previous, similar activities (e.g., Taiwan SNF shipments).

CURRENT ACTIVITIES - Continued

EA PREPARATION - Continued

- Support to SANDIA on conceptual designs and cost estimates for storage and handling of the SNF are being prepared.
- Foreign research reactor operators were asked to provide information to support the EA preparation in a letter from Victor E. Alessi (Director, Office of Arms Control and Nonproliferation) on March 12, 1993. A prompt reply is essential to keep the EA preparation process on schedule.

CURRENT ACTIVITIES - Continued

EA FINALIZATION

- The target date for issuing a draft of this new EA for public comment is end of August 1993. The target for completion of the EA is early 1994.
- Determination of the need for further NEPA documentation will be based on consideration of the comments received on the EA.

CURRENT ACTIVITIES - Continued

KEY OBSTACLES

- Current DOE storage facilities are insufficient to hold all returned SNF.
- All States are resisting inbound shipments of SNF and radioactive wastes to DOE sites.
- Ultimate disposal of the SNF is uncertain due to the status of the geologic repository program and phase-out of reprocessing.