

## POLICY ISSUE (Notation Vote)

September 6, 2001

SECY-01-0171

**FOR:** The Commissioners

**FROM:** Janice Dunn Lee, Director  
Office of International Programs /RA/

**SUBJECT:** PROPOSED SUBSEQUENT ARRANGEMENT TO AUTHORIZE THE  
RETRANSFER OF U.S.-ORIGIN URANIUM AND PLUTONIUM IN MIXED  
OXIDE (MOX) FUEL ASSEMBLIES FROM JAPAN TO THE UNITED KINGDOM

### **PURPOSE:**

To obtain the Commission's approval of a proposed response to the Department of Energy (DOE).

### **DISCUSSION:**

The DOE has forwarded a proposed subsequent arrangement request from the Department of Energy to retransfer approximately 3,439 kilograms of U.S.-origin uranium and plutonium from Japan to the United Kingdom (UK). The material is contained in mixed oxide (MOX) fuel assemblies originally intended for use at the Takahama Nuclear Power Station, Unit No. 4, operated by the Kansai Electric Power Co., Inc. The total amount of plutonium in the assemblies is approximately 255 kilograms. The material is being returned to British Nuclear Fuels PLC (BNFL) in the UK where it will be stored pending recovery of the contained plutonium (see Attachment 1).

The material involved is a portion of the MOX fuel assemblies manufactured by BNFL that have been found to have faulty quality control (QC) data due to improper procedures at BNFL. Attachment 2 is a recent Nuclear Fuel Article that provides further background concerning this "tainted fuel." The existence of these improper manufacturing procedures was first disclosed to the public in 1999. The MOX assemblies involved in this retransfer request had already been shipped to Japan and, after lengthy discussions, the Japanese customer refused to accept final delivery, thus, necessitating its return to the manufacturer in the UK.

During its return, the material will be subject to the same conditions regarding compliance with

U.S. Government statutory and policy approval requirements that applied to the original

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shipment of the material to Japan. Once it arrives back in the UK, the material will be subject to the 1996 Agreement for Cooperation in the Peaceful Uses of Nuclear Energy between the U.S. and the European Atomic Energy Community (EURATOM). The physical protection arrangements for the shipment by sea from Japan to the UK are documented in a classified Security Plan prepared by the Japanese and UK authorities. This Security Plan has been approved by the Executive Branch, subject to any significant change in the threat environment. NRC staff has also reviewed the security plan and concurs with the Executive Branch view.

Section 131 of the Atomic Energy Act of 1954, as amended, requires the Department of Energy to obtain the concurrence of the Department of State and to consult with the NRC and the Department of Defense before entering into a proposed subsequent arrangement. The Secretary of Energy must then make a written determination, noticed in the *Federal Register*, that the subsequent arrangement will not be inimical to the common defense and security.

U.S. approval for the proposed retransfer is being sought under the U.S.-Japan and U.S. EURATOM Agreements for Cooperation in the Peaceful Use of Nuclear Energy.

**POLICY CONSIDERATIONS:**

While the circumstances of this particular retransfer case are unique, the request does not raise any unusual policy considerations and approval would be consistent with current U.S. policy concerning the disposition of plutonium and other nuclear material subject to U.S. consent rights.

**CONCLUSION:**

The NRC staff agrees with the DOE that the proposed subsequent arrangement is not inimical to the common defense and security of the United States.

**RECOMMENDATION:**

That the Commission approve the response to DOE at Attachment 3.

**COORDINATION:**

NMSS and EDO concur in this paper. OGC has no legal objection.

Janice Dunn Lee, Director  
Office of International Programs

- Attachments:
1. Undated letter from T. Dedik, DOE (received at NRC/OIP on 8/23/01)
  2. Nuclear Fuel Article, 8/20/01
  3. Proposed letter from R. Hauber to T. Dedik

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***/RA/***  
Janice Dunn Lee, Director  
Office of International Programs

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3. Proposed letter from R. Hauber to T. Dedik

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\*See previous concurrence

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**ATTACHMENT 3**

Ms. Trisha Dedik, Director  
International Policy and Analysis  
for Arms Control and Nonproliferation  
Office of Defense Nuclear Nonproliferation  
National Nuclear Security Administration  
Department of Energy  
Washington, D.C. 20585

SUBJECT: SUBSEQUENT ARRANGEMENT/ RETRANSFER OF U.S.-ORIGIN URANIUM  
AND PLUTONIUM IN MIXED OXIDE (MOX) FUEL ASSEMBLIES FROM JAPAN  
TO THE UNITED KINGDOM

Dear Ms. Dedik:

The Nuclear Regulatory Commission has reviewed and does not object to the proposed subsequent arrangement to retransfer 3,439.377 kilograms of U.S.-origin uranium and 255.086 kilograms of plutonium from Japan to the Euratom Supply Agency. We understand that the transfer of this material will be subject to the same conditions as in the original transfer of the material from Euratom to Japan, including the shipment by sea pursuant to the Security Plan prepared by the UK and Japanese authorities and approved by the U.S. Government.

Sincerely,

Ronald D. Hauber, Deputy Director  
Office of International Programs