

## **POLICY ISSUE NOTATION VOTE**

May 8, 2001

SECY-01-0081

**FOR:** The Commissioners

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

**SUBJECT:** PROPOSED LICENSE TO EXPORT URANIUM OXIDE REFERENCE MATERIALS TO UKRAINE FOR USE AS CALIBRATION STANDARDS FOR SAFEGUARDS VERIFICATION MEASUREMENTS (APPLICATION NO. XSNM03174)

**PURPOSE:**

To request Commission approval of a license for the U.S. Department of Energy (DOE) to export to the Ukraine 1.75536 kilograms of uranium containing 0.970129 kilograms of U-235 enriched to a maximum of 93.18 percent in the form of uranium oxide reference materials for use at the Kiev Institute for Nuclear Research. The application is being referred to the Commission in accordance with 10 CFR 110.40(b)(5) because this is the initial export to Ukraine under the U.S.-Ukraine Agreement for Peaceful Nuclear Cooperation.

**DISCUSSION:**

On November 21, 2000, DOE applied for a license (XSNM03174, Attachment 1) to export to Kiev Institute for Nuclear Research in the Ukraine 1.77 kilograms of uranium containing 0.975 kilograms of U-235 at various enrichments up to a maximum of 93.18 percent in the form of uranium oxide as Certified Reference Material - CRM 146. The application was later revised to reflect a total quantity of 1.75536 kg U and .970129 kg U-235. The reference materials would be supplied by the New Brunswick National Laboratory under the DOE Materials Protection Control and Accounting (MPC&A) Program to the Institute, which is a part of the Ukrainian National Academy of Sciences. Specifically, the reference materials will be used for calibration of analytical instruments and/or certification of analytical method reliability used in nondestructive assay measurement of uranium enrichments to verify nuclear material inventories for safeguards reporting.

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 the Ukraine would take place pursuant to the U.S.-Ukraine

**CONTACT:** JEOwens, OIP  
415-3684

Agreement for Peaceful Nuclear Cooperation which entered into force on May 28, 1999, as confirmed in the assurance letter from the Embassy of Ukraine dated March 22, 2001 (Attachment 3). 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 by the Nuclear Non-Proliferation Act of 1978.

Inasmuch as this is the first export of nuclear material to Ukraine since the passage of the Nuclear Non-Proliferation Act of 1978, the Executive Branch has completed a detailed analysis as to how the requirements of Section 126 a.(1) of the Atomic Energy Act are met, including the specific criteria of Sections 127 and 128, as well as certain additional factors, envisaged by Section 126 a(1) (Attachment 4).

### **International Safeguards**

Ukraine is a party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), having deposited its instrument of accession ratification on December 5, 1994, and its Agreement with the International Atomic Energy Agency (IAEA) to maintain safeguards on all its peaceful nuclear activities entered into force on January 22, 1998 (INFCIRC/550). As such, Ukraine accepts safeguards on all source and special nuclear material in its peaceful nuclear activities.

The latest IAEA Annual Report does not list a Facility Attachment as under negotiation or in force for the Kiev Institute in Ukraine. However, on the basis of information provided by the IAEA, we understand that the IAEA is conducting effective ad hoc inspections there on a quarterly basis.

### **Physical Protection**

Although NRC staff have not performed a physical protection information exchange visit with Ukraine, NRC staff expect that the physical protection system in Ukraine now meets the international guidance (INFCIRC/225, Rev.4). Ukraine has actively worked with the international support programs to improve the protection of its nuclear materials. DOE upgrades to Ukrainian HEU facilities were completed in 1998. Safeguards support to the Ukrainian regulatory authority and other Ukrainian facilities is still being provided by the U.S. and other countries. Ukraine's intent to implement effective physical protection is evidenced through visits by its experts to other countries to observe and discuss physical protection measures and by participation in international meetings enhancing the physical protection guidance and standards. Most importantly, Ukraine requested the IAEA to perform a comprehensive review of its physical protection program, to compare it to international guidelines and practices, and to make recommendations for improvements. This evaluation is currently scheduled for June 2001. The proposed export of four sets of HEU nondestructive analysis measurement standards will further enhance the Ukrainian capability to protect and account for the HEU they possess.

### **Review of Other Information**

OIP has reviewed available State Department telegrams and other information and has identified no basis for concern about Ukraine's commitment to full-scope international safeguards or its fulfillment of obligations to the U.S. under the U.S.-Ukraine 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.

**RECOMMENDATION:**

That the Commission authorize the issuance of the requested license to DOE.

*/RA by Ronald D. Hauber Acting for/*

Janice Dunn Lee, Director  
Office of International Programs

- Attachments:
1. 11/21/00 DOE Export License Application and Revision (XSNM03174)
  2. 04/09/01 DOS Letter R.J.K. Stratford to J. Dunn Lee
  3. 03/22/01 Embassy of Ukraine Letter. From S. Korsunsky to A.M. Scheinman
  4. Executive Branch Export License Application Analysis

**DISTRIBUTION:**

XSNM03174	SECY
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RWarren, NMSS	RDHauber, OIP
,OEDO	BLWright, OIP

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\*Previously concurred

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