

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

DOCKETED 4//8/99

Shirley Ann Jackson, Ch  
Greta J. Dicus  
Nils J. Diaz  
Edward McGaffigan, Jr.  
Jeffrey S. Merrifield

SERVED 4/8/99

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In the Matter of )  
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TRANSNUCLEAR, INC. )  
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(Export of 93.3% Enriched Uranium) )  
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Docket No. 11005070

License No. XSNM-03060

CLI-99-09

ORDER

The Nuclear Control Institute (NCI) has requested leave to intervene and a hearing on an application of Transnuclear, Inc. (Transnuclear), filed on October 29, 1998, for a license to export highly enriched uranium (HEU) to Canada. After reviewing the pleadings<sup>(1)</sup> submitted by both parties and the Executive Branch views on the merits of the application, we have determined that more information is required to fully address the merits of this case.

We request that the participants, including the Executive Branch, address the questions set out as an Appendix to this Order. The NRC must receive responses by April 22, 1999. Submissions should be served on other participants in accordance with 10 C.F.R. 110.89.

It is so ORDERED.

For the Commission,  
[Originally Signed by Annette L. Vietti-Cook]

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ANNETTE VIETTI-COOK  
Secretary of the Commission

Dated at Rockville, Maryland  
this 8th day of April, 1999.

APPENDIX

I. The MAPLE reactors

1. What is the status of DOE's funding of the U.S. (Argonne National Laboratory) (ANL) program to develop alternative LEU targets for Canada?
2. Please describe additional steps taken since the November 5, 1998 meeting between AN and MDS Nordion to further the objectives of the Reduced Enrichment for Research and Test Reactors (RERTR) program. Transnuclear's March 1, 1999 pleading, and the March 5, 1999 Executive Branch views reference a January 12, 1999, meeting between DOE representatives and MDS Nordion. What further agreements, if any, were reached, as

a result of that, or any subsequent, meeting?

3. When will the first LEU targets be ready and scheduled for testing at the MAPLE reactors? Is it possible that existing HEU target designs can be modified for use with LEU? Is it possible the LEU targets being developed for use in Indonesia could be used in Canada? When will the Indonesian targets be available for commercial use, in the Indonesian reactor, and in other reactors?
4. Where will the first irradiated Indonesian and Canadian LEU test targets be processed? How many irradiation and processing test campaigns may be required for economic and FDA licensing feasibility determinations?

## **II. Conversion of the MAPLE Reactors to LEU Targets if Startup Occurs with HEU Targets**

1. When will sufficient information be available to enable MDS Nordion to assess the economic feasibility of using LEU targets?
2. Under what circumstances would it make "business sense" for MDS Nordion to convert to LEU targets? If HEU targets are available from the United States, Russia, or other sources now or in the future, is there any incentive to assume the extra costs involved in converting to LEU targets?
3. Please discuss the feasibility of converting the MAPLE reactors to LEU targets if initial startup is implemented with HEU targets. Include the duration of possible shutdowns and the effect on the supply of medical isotopes to the U.S. In addition, discuss whether existing waste processing and storage facilities will be adequate if LEU targets are used. If not, how will the issue of additional waste processing and/or storage facilities be addressed?

## **III. NRU Reactor**

1. What is the projected shutdown date for the NRU reactor?
2. Will the NRU reactor be shut down immediately following (or shortly thereafter) the date on which the MAPLE reactors become operational, or will it continue to operate until its projected shutdown date?

## **IV. U.S. Production Capability for Mo-99**

1. When will the facilities at Sandia/Los Alamos National Laboratory be ready to produce medical isotopes? Please discuss how this project has progressed since publication of the Record of Decision (See 60 Fed. Reg. 48,921 (Sept. 17, 1996)).
2. What percentage of the U.S. medical isotope supply will this facility supply when it is fully operational? In an emergency (e.g., non-availability of medical radioisotopes from Canada) can the Sandia/LANL production be expanded? If so, what percentage of the U.S. supply could it provide, and for how long?
3. Why will this facility use HEU targets?
4. Is there a schedule in place for conversion to LEU targets at this facility? If not, why not?

## **V. General Questions**

1. What is the status of the use of LEU targets (or plans for conversion to LEU targets) at other producers of medical isotopes for the world market?
2. Approximately how large is the economic advantage of using HEU as opposed to LEU targets, as a general matter?

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1. On February 22, 1999, Transnuclear filed a motion for leave to file a brief in response to NCI's February 12, 1999 reply brief. 10 C.F.R. 110.83 provides for an applicant in an export licensing proceeding to file an answer to a hearing request or intervention petition, and for a reply to that answer, but makes no provision for further pleadings. Because NCI does not oppose Transnuclear's additional brief, and in the interest of fully informing the Commission on this matter, Transnuclear's motion is granted. NCI filed a motion for leave to file a rejoinder to Transnuclear's supplemental reply, dated March 1, 1999. Because Transnuclear raised no objection, and in the interest of informing the Commission, NCI's motion is likewise granted.