

Views of the Executive Branch

**On Application XSNM03060 for Export of
the Second Annual Tranche of HEU to Canada
for Medical Isotope Production**

**Presentation Before the
U.S. Nuclear Regulatory Commission
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Mr. Chairman, Members of the Commission, Ladies and Gentlemen:

I am pleased to have the opportunity to present the views of the Executive Branch regarding the continued supply of highly enriched uranium (HEU) to Canada for medical isotope production. My letter of July 6 to Janice Dunn Lee outlined why the Executive Branch believes that it is appropriate to go forward with continued supply of HEU to Canada for medical isotope production, and I won't recap those views here since they are in the written record.

In my remarks here today, I would like to deal directly with the specific concerns raised by the intervenors about continuing HEU supply to Canada for medical isotope production. The MDS Nordion New Processing Facility (NPF) is scheduled to go on line by the end of this month, following licensing approval by the Canadian Nuclear Safety Commission, the successor to the Atomic Energy Control Board of Canada. In brief, we do not see this development as threatening to undermine two decades of progress in the efforts to eliminate HEU from civilian commerce. We also do not agree with the intervenor's position that operation of the NPF with HEU until the necessary studies and steps to allow conversion to LEU can be completed, is contrary to international norms or U.S. law. Given the expressed commitment of the Canadian producers to convert to LEU and the progress made in

feasibility studies to date, we do not foresee HEU usage for the life of the NPF as a realistic possibility.

Most simply stated, we find the proposition that the NPF should not be operated until it is converted to be unrealistic and inconsiderate of the time, effort, and resources spent by our Canadian colleagues to place the production of medical isotopes on a stable footing for years to come. Since the specific modifications required for LEU conversion have not yet been identified, let alone developed, pursuing such an option would require continuing to rely on the aged NRU reactor for an indefinite period for more than 60 percent of U.S. medical isotope requirements. We agree with the Canadian position that such an option puts medical isotope production at undue risk.

The intervenors have alleged that the applicant is violating the terms of the NRC's order and are likely to argue against conversion as being prohibitively expensive once the NPF is radioactive. While we cannot pretend to predict the future, the facts developed to date strongly suggest a different outcome. The Executive Branch Agencies and Argonne National Laboratory find that MDS Nordion is making a good-faith effort to convert their isotope production process to LEU and substantial progress has already been made in eliminating several obstacles to conversion.

The intervenors suggest that approval of a recent amendment request to supply HEU as metal, rather than as finished targets, could lead to repeated recycle of HEU, thus perpetuating HEU use for decades to come. As I understand it, and I'll let the experts speak to this, the calcining process for disposing of isotope production waste essentially eliminates recycling as an option.

Regarding the continued interaction and cooperation between MDS Nordion and Argonne National Laboratory, MDS Nordion has been furnishing Argonne with progress reports. Argonne personnel believe that the technical results described in the Nordion reports are reasonable and agree with RERTR program experience. Argonne has concluded that MDS Nordion appears to be making a legitimate attempt to study the feasibility of converting their new process from HEU to LEU.

Until recently, Argonne believed it had insufficient information to evaluate the difficulty of the waste problem or to recommend a solution. To remedy this situation, MDS Nordion organized a June 30 visit for Argonne to SGN, France, the producer of the calcining equipment, to provide Argonne a better understanding of the process and the difficulties of conversion to LEU. Argonne characterized its meeting with SGN as open and informative and noted that SGN appeared to have performed a detailed assessment of how the current calcination process would be affected by LEU conversion.

The intervenors argue that LEU conversion modifications need to be installed in the NPF before the facility starts operation to avoid the possibility that such modifications would be too costly and difficult to do once the NPF becomes radioactive. Nordion has concluded that there are no modifications that need be done now while the facility is cold that could not be done later after the facility is hot. Argonne, following the visit to SGN, concurs with the Nordion assessment. I might add as an aside that Dr. Allan Krass of my office, who handles RERTR and spent fuel takeback issues for us, visited the Nordion facilities to review the situation personally. His assessment discounted the utility of adding an extra pipe as a "headstart" toward adding a new calcining unit at a future date.

In conclusion, the Executive Branch believes that MDS Nordion is making a credible good-faith effort to study the feasibility of converting their new medical isotope production process to LEU. Nordion has already eliminated a number of possible obstacles to conversion. The remaining obstacle, conversion to LEU of the waste calcination process, will take substantial further study to identify necessary changes for conversion to LEU.

Argonne, Nordion and AECL have agreed on the following time-line for moving forward on conversion which involves three steps: The first step is development of a plan by Nordion for resolution of remaining obstacles to conversion, to be completed by September of this year. The second step is technical implementation of this plan, which could require about 18 months. The third step involves safety approvals and environmental impact statements, which could require 3 years or more.

On the basis of our review, therefore, we have concluded that continued supply of HEU under the existing license meets the requirements of U.S. law, including the Schumer amendment, and would not be inimical to the U.S. common defense and security. We also believe that the proposed export is clearly in the interest of the United States since Canada, through its HEU target process, currently supplies more than 60 percent of U.S. medical requirements for molybdenum-99. MDS Nordion will continue to need HEU until the necessary conversion steps for the NPF have been identified and implemented and to allow time for the necessary approvals by Canadian and U.S. regulatory authorities.

Mr. Chairman, thank you for giving me the opportunity to make this presentation. My colleagues and I will be pleased to answer your questions.