



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

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AUG 20 1979

MEMORANDUM FOR: Files

FROM: R. Neal Moore, Senior Licensing Officer
Office of International Programs

SUBJECT: FINDINGS RELATING TO THE PROPOSED IMPORT OF IRRADIATED FUEL
CONTAINING HIGHLY ENRICHED URANIUM - ISMNO79008

In June, 1979 NL Industries, Inc., requested a license authorizing the import of approximately 47 kilograms of uranium, containing approximately 27 kilograms of U-235, in irradiated fuel from the Chalk River Nuclear Laboratories NRX-NRU reactors. The material is in the form of solid U-Al fuel rods which originally contained uranium enriched to 93% U-235. The irradiated fuel contains small amounts of produced plutonium.

The material will be shipped by truck from Chalk River Nuclear Laboratories in Ontario to the Department of Energy Savannah River Project, Aiken, South Carolina for recovery of residual uranium. A total of nine shipments is planned utilizing the NL Industries Cask System #6502. This cask carries the IAEA certificate of Compliance Number USA/9103/B()F and meets the Department of Transportation requirements for transport of NRX-NRU irradiated fuel elements within the U.S.

The material is in a nonvolatile, noncorrosive form in the package. The package is considered capable of withstanding a credible accident without rupturing. In the unlikely event that a rupture did occur any release of contents would be limited by the minimum mobile inventory available and by the construction and composition of the fuel elements.

NL Industries has been transporting similar loads of spent fuel from Chalk River Nuclear Laboratories to the Savannah River Project since 1966 without a serious incident. During the same time period, hundreds of other similar shipments have been made to SRP without incident. The proposed import will not result in any significant change in the probability of a potential accident and will have no environmental impact over that resulting from the domestic transport of similar material.

The radiological impacts from import shipments were further evaluated in the Final Environmental Statement of the Transportation of Radioactive Material by Air and Other Modes, NUREG-0170, and were determined to be negligible compared to impacts from domestic shipments.

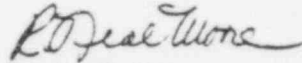
The material meets the conditions of 10 CFR 73.6(b) with respect to separability and radiation levels; consequently, it is exempt from the physical security requirements of 10 CFR 73.30 through 73.36. However, the shipment will be subject to protection according to the physical security requirements for the transport

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of irradiated reactor fuel as set out in 10 CFR 73.37, (44 FR 34467, June 15, 1979).

The staff finds that this import will not be inimical to the common defense and security, will not constitute an unreasonable risk to the health and safety of the public and will have no significant environmental impact.



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