

UNITED STATES GOVERNMENT

Memorandum

TO : Donald A. Nussbaumer, Chief
Source & Special Nuclear Materials Br.
Francis K. Durkin for
Charles D. Luke, Chief

FROM : Criticality Evaluation Br.

DATE: June 11, 1962

SUBJECT: AMENDMENT TO LICENSE SNM-53 FOR SHIPMENT OF URANIUM DIOXIDE
STAINLESS STEEL CLAD FUEL PLATES TO ROME, ITALY - MAY 8, 1962 -
DOCKET 70-58

Ref: DLR:FKD

Reference: (1) Report, MND-2789 dtd May 7, 1962
(2) Dwg., No. 1883-342

In response to your memorandum of May 11, 1962, we have reviewed the subject application.

The Martin Marietta Corporation proposes to ship to Comitato Nazionale Per L'Energia Nucleare, fuel plates which are UO_2 stainless steel cermet stainless steel clad. The plates consist of approximately 22 weight percent UO_2 enriched to $89.85 \pm .15$ weight percent U-235. It is planned to pack 75 of the described fuel plates (3.06 kgs U-235) in each of the 14 containers required for the total shipment of 1,000 fuel plates (41.8 kgs U-235).

The shipping containers will be made from 55-gallon, 18 gauge steel drums. The fuel container will consist of 4" I.D. Schedule 40 pipe, 44" in length centered in the drum thus insuring a 9" spacing between the fuel container and the drum wall. Structural integrity and stress analysis have been referred to Mr. Chris Beck for evaluation.

The shipping container and shipping procedures are considered safe in accordance with the recommended nuclear safety limits given in Table IV and Figure 23 of TID-7016, Rev. 1.

The fuel plates will be loaded in the shipping container at the Martin Marietta Corp., Baltimore, Maryland and to guarantee against commingling, shipment will be via exclusive-use of a common carrier van to Idlewild Airport where the fuel will then be transferred and shipped via Alitalia Airlines to Rome, Italy.

(Continued)

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We have no objection to the shipping container and shipping procedures as proposed. However, prior AEC approval must be obtained for future shipments other than the one described herein.

Enclosures:
Docket 70-58