

UNITED STATES GOVERNMENT

Memorandum

TO : Donald A. Nussbaumer, Chief
Source & Special Nuclear Materials Branch, DML

DATE: April 6, 1964

FROM : Charles D. Luke, Chief
Criticality Branch, DML

SUBJECT: THE MARTIN COMPANY, DOCKET NO. 70-58, SUPPLEMENTARY INFORMATION
DATED MARCH 20, 1964

SYMBOL: DML:TGM

We have reviewed the subject information which supplements The Martin Company application of February 14, 1964, for the shipment of air filters containing enriched uranium oxide.

Subject to the approval of the tie-downs by Christian Beck, we have no further objection to the proposed shipment. However, we do feel that the applicant should be advised that the calculations for determining geometric buckling were in error. The filter dimensions must be increased by two times the 3cm extrapolation distance. As a result, the proper k_{eff} for a bare moderated filter is considerably greater than Martin's 0.455. We suggest that k_{eff} be computed in accordance with DP-532. On the other hand, Martin was overly conservative in applying the solid angle criterion. We suggest determining a solid angle between actual filters and not between the total packages as Martin has evidently done.

cc: Christian Beck, DML

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