Project SNM-23

Docket 70-133

Lyall E. Johnson, Chief
Licensing Branch

Clifford K. Beck, Chief
Hazards Evaluation Branch

CLEVITE RESEARCH CENTER

We have reviewed the Clevite applications dated December 19, 1958, and February 2, 1959, requesting AEC approval of increased possession limit to 55.8 kg U-235, and the revised General Criticality Procedure.

We see no objection to approval of 55.8 kg U-235 inventory. Clevite has proper facilities and has had on hand at one time far greater quantities of U-235 in connection with AEC contract work on MTR elements.

The quantity limits imposed by Clevite on batches of solid alloy, fuel plates and WTR fuel elements are within the limits outlined in TID-7016 and LA-1958. Similarly, masses of U-235 in accumulated sludge and dilute solutions are consistent with generally accepted limits.

Information submitted was not adequate for us to evaluate the proposed spacing employed in storage of individual containers in the vault, and we suggest that your communication to Clevite include the following paragraphs:

> "The mass limitation for accumulations of U-235 during processing operations and in individual quantities to be stored in the vault seem to meet accepted criteria. However, we have not been able to evaluate the proposed spacing of the various materials in the vault on the basis of information submitted in the application. For example, are tote pans and containers to be arranged in cubical array during storage? Also, what criteria did you employ in determining that 19" and 24" center-to-center spacings would be sufficient to assure safety from criticality due to interaction between individual units of materials in storage.
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> "We see no objection to the shipping procedures you propose for transporting scrap materials. When you have had the opportunity to determine methods of shipping fuel elements and other special nuclear material, we suggest that you apply the interaction criteria outlined in K-1019 and K-1380 (or the equivalent) in order to arrive at safe spacing of individual mass units during shipment."

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DATE ▶	2/17/59	2/17/59			