

## Office Memorandum • UNITED STATES GOVERNMENT

TO : Lyall E. Johnson, Chief  
Licensing Branch

DATE:

FROM : Clifford K. Beck, Chief  
Hazards Evaluation Branch

SUBJECT: MALLINCKRODT CHEMICAL WORKS

We have reviewed the letter of December 10, 1958, from Mallinckrodt Chemical Works, requesting amendment of License No. SNM-33 to permit pelleting operations on uranium enriched to 5% U-235 in a new facility at Hematite, Missouri.

Batch sizes throughout the operations will not exceed limited safe masses as specified in Report K-1019, Part 4 (Deleted).

Neither the diameter <sup>nor</sup> capacity of the storage hopper located above the feed hopper of the pelleting press is given. Either the diameter should be not over the limited safe dimension or positive means should be in effect to insure against more than a limited safe mass in the hopper at any time. Please submit information on what the safe dimension is.

Evidently accumulations are permitted at several points in the process. After drying, drums each containing a limited-safe quantity of material are stored in racks which provide a 2' edge to edge spacing and a vertical spacing of 2' top to bottom. We believe this geometry will satisfy interaction criteria.

Under emergency conditions more than limited safe amounts of material may be accumulated at the furnace area in 2" layers spaced 2' apart. Also, material discharged from the high temperature sintering furnaces is placed on a transfer cart in unspecified amounts and spacing. <sup>may be</sup> We request that where more than one limited safe batch are being accumulated, interaction criteria such as those presented in K-1019 should be satisfied.

Please submit the

safe dimension to be used.

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