

*Office Memorandum* • UNITED STATES GOVERNMENT

TO : Lyall Johnson, Chief  
Licensing Branch

DATE: JUL 10 1959

FROM : Charles D. Luke, Acting Chief  
Hazards Evaluation Branch

*Charles D. Luke*

SUBJECT: WESTINGHOUSE APD

We have reviewed the June 2, 1959, application of Westinghouse Corporation requesting approval of plans for processing uranium metal and compounds of all enrichments.

The Westinghouse proposal provides for criticality control during processing by limiting the U-235 contained in each batch of material. The limits were based upon information presented in K-1019 and represent satisfactory procedures.

Storage methods were based upon geometry control. Compounds and finally divided SNM material will be placed in 5-inch diameter cans which will extend in line from the floor to the ceiling. Fuel tubes or rolled sheets will be stored in long boxes, the cross sectional area of which will be less than that of a 5-inch circle. In either case, separation of 12 inches will be maintained, but we are not able to determine that this spacing will be adequate.

It is suggested that your communication to Westinghouse include the following:

"Storage of material, excluding solid metal components, in 5-inch diameter units is an acceptable procedure. However, we have not been able to determine on the basis of information in your application that the proposed 12-inch spacing is sufficient to preclude criticality through interaction of one unit with others. In order to determine proper spacing, Westinghouse should employ the solid angle-multiplication factor criterion outlined in K-1019 (pp. 24-26 and 37) and K-1380 (parts H and I).

"An alarm system and emergency evacuation plan were described in compliance with Section 70.24. The evacuation plan is satisfactory but we must have further information on the alarm system in order to evaluate its adequacy. Specifically, we request information covering the radiation detection level, response times of the instrument and alarm system to different radiation levels, and the frequency of testing the alarm system including fail-safe features and description of the emergency power supply."

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