

UNITED STATES GOVERNMENT

Memorandum

TO : Lyall E. Johnson, Chief
Licensing Branch

FROM : Edson G. Gandy, Acting Chief
Hazards Evaluation Branch

SUBJECT: CURTISS-WRIGHT CORP.

DATE: MAY 31 1960

We have reviewed the Curtiss-Wright application dated May 12, 1960, submitted in response to questions raised in our April 22 memorandum to you.

On the basis of the information submitted on the monitor-alarm system we recommend approval of the Part 70.24 procedures.

With regard to the operation of acid cleaning fuel elements, we are not satisfied that the procedures described in the March 9 and May 12 applications are adequate to properly protect against accidental criticality.

Applicant states that each tank contains 170 liters of acid solution, which indicates the tank is much larger in volume than the fuel element being cleaned. Applicant assumes it possible to dissolve one element (200 g U-235) in a tank. He further states that analyses may be conducted at time intervals from one month to six months.

We do not question the proposed maximum allowable U-235 concentration of approximately 0.5 g/liter, but we do not believe the procedures are adequate to insure this margin of safety.

We request that the applicant consider more frequent analyses and limiting the size of the cleaning bath tanks in order to gain advantage of favorable geometry. Indeed, it is probable that a cleaning bath size and acid concentration can be selected so that critical amounts of U-235 could not build up prior to exhaustion of the acid.

*6/1/60 Tom & Duke talked this over with Wheelock of C W
He will resolve the issues with mgmt re ① frequency of
analyses and re ② change in tank size & will submit
an amended application on these points JEG*