MW 30 1987

SGTB:RHO 71-6003

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Department of Energy ATTN: Mr. W. P. Engel Division of Naval Reactors Washington, DC 20585

Gentlemen:

This refers to your application dated July 14, 1981, requesting an amendment to the Model No. M-130 package with D2W or NR-1 contents.

In connection with our review, we need the information identified in the enclosure to this letter.

Please advise us within 30 days from the date of this letter when this information will be provided. The additional information requested by this letter should be submitted in the form of revised pages. If you have any questions regarding this matter, we would be pleased to meet with you and your staff.

We note that you are applying for a Type B(U) certificate for this package. In accordance with 10 CFR §71.13 you should provide a consolidated safety analysis report for the package which addresses all the requirements of current 10 CFR Part 71 for each type of contents.

Sincerely,

Original Signed by CHARLES E. MACDONALD Please Retin to C. Davis

396-55

Charles E. MacDonald, Chief Transportation Branch Division of Safeguards and Transportation, NMSS

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Enclosure: As stated

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Please Return to K. Davis 396-55

Department of Energy Division of Naval Reactors Model No. M-130 Package With D2W or NR-1 Contents Docket No. 71-6003

JUN 20 1987

End to 1tr dtd:

STRUCTURAL

D2W Spent Fuel Contents

Since the minimum contact area between the scram shaft and the manifold seat is 0.1465 square inches, the harder material of the scram shaft is more likely to crush the edge of the softer material of the manifold rather than indent it as was assumed in the analysis. Provide an analysis using the minimum contact area and ultimate bearing strength to calculate the force required for the scram shaft to crush into the manifold. Revise the calculation on control rod movement for the 30-foot flat bottom drop accordingly, and if necessary the criticality analysis.

CRITICALITY

D2W Spent Fuel Contents

- These contents are shipped with control rods in place. Under the accident condition, it is calculated that these rods move 5 inches (actually estimated to be 2.26 inches) relative to the adjacent fuel. The applicant should report the procedure used in the Monte Carlo calculation to insure adequate sampling of neutrons from the "unrodded region" for a proper eigenvalue calculation.
- The applicant should supply a 3D sketch showing the geometric regions and dimension for the fuel, poison, and water regions (either discrete material or homogeneous mixture regions) to validate the mass loadings of U-235, Hf and B, and H₂O. Essentially, a detailed sketch to go with Table 5.3.2-2, page 48.

NR-1 Spent Fuel Contents

The applicant should supply a 3D-sketch to go with Table 5.3.2-2, page 30.