

APR 29 1981

Docket No. 50-309



Mr. Robert H. Groce
Senior Engineer- Licensing
Maine Yankee Atomic Power Com ny
1671 Worcester Road
Framingham, Massachusetts 01701

Dear Mr. Groce:

We continue to review your submittals of September 18, 1979 and September 29, 1980, concerning modified spent fuel pin storage at the Maine Yankee Atomic Power Station.

We find that we will need additional information before we can complete our review and evaluation. The enclosure lists the information required. Please submit the information requested with your response to our letter dated March 17, 1981.

Sincerely,

Original signed by
Robert A. Clark

Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

Enclosure:
As stated

cc: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

April 29, 1981

Docket No. 50-309

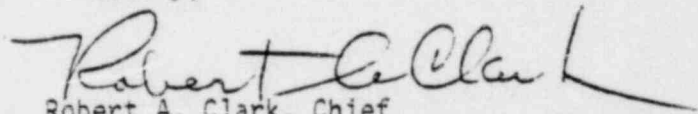
Mr. Robert H. Groce
Senior Engineer- Licensing
Maine Yankee Atomic Power Company
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189 State Street
Augusta, Maine 04330

POOR ORIGINAL

ADDITIONAL INFORMATION REQUIRED FOR
MAINE YANKEE SPENT FUEL POOL REVIEW

1. The text (page 3 of Attachment B of the September, 1980 submittal) asserts that all mechanical uncertainties were treated by assuming "worst case" conditions. But Figure 3.1 indicates that the effective multiplication factor is approximately 0.929 at the 10.5 inch nominal spacing. This seems inconsistent. Please provide a listing of mechanical parameters with the nominal and "worst case" value of each.
2. The conclusion (page 3 of Attachment B of the September, 1980 submittal) that compacted assemblies are less reactive than the design lattice was based on calculations at a 12.0 inch pitch. Provide arguments (or calculational results) to show that this conclusion is also valid at 10.5 inch pitch. Also explain the fact that optimally moderated compact assemblies have a smaller effective multiplication factor than the design assembly (0.760 vs 0.773 in the September, 1979 submittal).
3. The implication in the September, 1980 submittal is that the reracking will take place in stages so that some portions of the racks will have 10.5-inch spacing while others have 12.0-inch spacing. Comment on the criticality impact of interfaces between two such portions.
4. Describe the samples and instrument readings and the frequency of measurement that will be performed to monitor the water purity and need for spent fuel pit cleanup system demineralizer resin and filter replacement. State the chemical and radiochemical limits to be used in monitoring the spent fuel pool water and initiating corrective action. Provide the basis for establishing these limits. Your response

should consider variables such as: boron, gross gamma and iodine activity, demineralizer and/or filter differential pressure, demineralizer contamination factor, pH, and crud level.