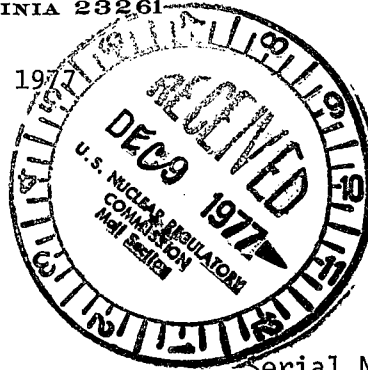


REGULATORY DOCKET FILE COPY

VIRGINIA ELECTRIC AND POWER COMPANY

RICHMOND, VIRGINIA 23261

December 6, 1977



Mr. Edson G. Case, Acting Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Serial No. 540
PO&M/HSM:bep/mc
Docket Nos. 50-280
50-281

Attention: Mr. Robert W. Reid
Operating Reactors Branch 4

License No. DPR-32
DPR-37

Dear Sir:

The purpose of this letter is to submit supplemental information on the High Density Spent Fuel Storage Racks described in our letters of May 27, 1977, August 10, 1977, September 15, 1977, and September 29, 1977.

In our response to question number 8 in our letter of September 29, 1977 we state that the damping values used were four (4) percent for the Operating Basis Earthquake (OBE) and six (6) percent for the Safe Shutdown Earthquake (SSE). These damping values are two (2) percent greater than the regulatory guide 1.61 values, which are for welded steel structures in air, as the spent fuel racks will be completely submerged in water. If the regulatory guide damping values are assumed the results of the seismic structural analyses show that the maximum stresses and deflections in the rack are nominal and within the allowable values. However, the loads which are transmitted to the fuel pool floor embedment pads are slightly greater (~5 percent) than the allowable values for these pads. These allowable values were calculated using the Standard Review Plan, section 3.8.4 and the American Concrete Institute Standard 318-71 (ACI-318-71). This method inherently has about 15 percent of margin due to the use of a capacity reduction factor of 0.85. Therefore, while the loads will be greater than the allowable values, the loads will not be of sufficient magnitude to cause deformation or failure of the fuel pool floor embedment pads.

The applicable codes used in the design of the spent fuel storage racks are discussed in section 6.3.1.1 of the spent fuel storage rack submittal forwarded in our letter of May 27, 1977. The codes used in the design, fabrication, inspection, and installation are listed in attachment 1.

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If you have any questions or comments on this material or the material submitted in the above mentioned letters, we would be pleased to meet with your staff at their convenience to discuss them.

Very truly yours,

C. M. Stallings

C. M. Stallings
Vice President - Power Supply
and Production Operations

Attachment

cc: Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
Region II

ATTACHMENT 1

APPLICABLE CODES USED IN THE DESIGN
FABRICATION INSPECTION, AND INSTALLATION
OF THE HIGH DENSITY SPENT FUEL STORAGE
RACKS FOR SURRY POWER STATION

1. A.I.S.C. Manual of Steel Construction, Seventh Edition, 1970
2. ASME Boiler and Pressure Vessel Code, Section V
3. ASME Boiler and Pressure Vessel Code, Section VIII
4. ASME Boiler and Pressure Vessel Code, Section IX