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CONNECTICUT YANKEE ATOMIC POWER COMPANY

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May 21, 1980

Docket No. 50-213
B10003

Mr. Boyce H. Grier, Director
Region I
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

- References: (1) W. G. Council letter to Director, Office of Nuclear Materials Safety and Safeguards dated February 22, 1980.
(2) W. G. Council letter to Director, Office of Nuclear Materials Safety and Safeguards dated March 24, 1980.
(3) W. G. Council letter to B. H. Grier dated April 15, 1980.

Gentlemen:

Haddam Neck Plant
Information on Spent Fuel Shipment

Connecticut Yankee Atomic Power Company (CYAPCO) recently shipped three spent fuel assemblies to Battelle Columbus Laboratories in three separate shipments in an NAC-1 single assembly spent fuel shipping cask. The NAC-1 cask was originally licensed for 11.5 Kw of residual heat with an assembly shipped wet. However, NRC recently imposed a restriction to 2.5 Kw when the decision was made to ship assemblies dry because of potential leakage concerns under certain accident conditions. The restriction is anticipated to be temporary while the cask licensee completes the re-licensing effort.

The first assembly shipped from the Haddam Neck Plant was a failed assembly from Batch 8. Our calculations indicated decay heat content of 2.09 Kw using the proposed 1973 ANSI 5.1 data (which is also the basis of Appendix K). CYAPCO was notified by Battelle on May 12, 1980 that a post-receipt confirmatory calculation indicated a decay heat rating of greater than 2.50 Kw, using the recently approved 1979 ANSI 5.1 standard. We have subsequently confirmed that actual heat generation is 3.50 Kw using the 1979 ANSI 5.0 standard. Independent calculations were performed by NAC, the cask licensee, to check and confirm this figure.

On establishing the accuracy of the 3.5 Kw figure for the first assembly, CYAPCO contacted NRC's Office of Nuclear Material Safety and Safeguards and Region I Headquarters, on Friday, May 16, 1980, to notify the respective offices that the cask's license decay heat limit had been violated. This letter is being docketed in accordance with the provisions of 10CFR Part 71 and DPR-61. It was noted at that time, and is emphasized at this point, that the shipment in question was accomplished with no adverse effects on the health and safety of the public, and that no apparent damage to the cask resulted. State authorities were also informed.

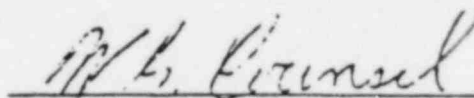
Calculations have also been re-done for the second and third fuel assemblies shipped, and verify that both assemblies were less than 2.5 Kw.

In addition, an investigation has been initiated by the cask licensee to determine the extent of the effects on the cask, if any.

Because there are no adverse consequences associated with this incident, no further action on either CYAPCO's or the Staff's part is judged to be necessary.

Very truly yours,

CONNECTICUT YANKEE ATOMIC POWER COMPANY



W. G. Council
Vice President