



CONNECTICUT YANKEE ATOMIC POWER COMPANY

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Docket No. 50-213
B10611

Director of Nuclear Reactor Regulation
Attn: Mr. Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
U. S. Nuclear Regulatory Commission
Washington, DC 20555

- References:
- (1) W. G. Council letter to D. M. Crutchfield, dated April 1, 1982.
 - (2) W. G. Council letter to D. M. Crutchfield, dated September 21, 1982
 - (3) D. M. Crutchfield letter to W. G. Council, dated August 26, 1982.

Haddam Neck Plant
SEP Topic III-3.A, Effects of High Water Level on Structures

In Reference (1), Connecticut Yankee Atomic Power Company (CYAPCO) described to the Staff the modifications which were planned to provide flood protection to the plant to a stillwater elevation of 30 ft. Mean Sea Level (MSL) resulting from flooding on the Connecticut River. In Reference (2), CYAPCO informed the Staff that these modifications were completed by September 1, 1982, as committed in Reference (1). Reference (2) also stated that the structural analysis associated with a flood level of 30 ft. MSL was continuing, consistent with the Staff's evaluation of Topic III-3.A, Effects of High Water Level on Structures, forwarded by Reference (3). This analysis has been completed, and the results are summarized below.

The following structures are now protected to prevent inleakage resulting from a flood at elevation 30 ft MSL and have been analyzed to assure sufficient structural capability:

- o Containment
- o Primary Auxiliary Building
- o Diesel Generator Building
- o Safety Related Tanks (DWST, RWST, PWST, Fuel Oil)

During the postulated flooding event, the following structures would be permitted to flood:

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- o Screenwell House
- o New and Spent Fuel Building
- o Service Building (note: the control room, switchgear room, and cable spreading area are all above flood level)
- o Turbine Building
- o Auxiliary Feedwater Pump House

The applied loads reflected a wind generated wave with a significant wave height equal to 2.5 feet. For all structural elements subjected to a nonbreaking wave, an applied hydrostatic loading reflecting a standing wave was applied from 5.0 psi at grade to 1.0 psi at elevation 30 ft. For all structural elements subjected to a breaking wave, a uniform loading of 9.0 psi between site grade and elevation 25ft. 6 in. was also applied. For all structures, the resulting bouyant force was applied. The analysis reflected a load combination of D + L and an acceptance criterion of the ultimate section strength based upon the ACI ultimate strength method. No load factors were applied.

The analysis demonstrated that all existing structures requiring protection by the Reference (2) emergency procedure could withstand the applied loadings with the exception of the following isolated areas:

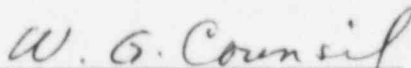
- o The portions of block wall located on the south end of the Diesel Generator building.
- o The block walls located at the Waste Disposal Building. These walls provide protection to the north entrance to the PAB.
- o The 12 in. reinforced concrete south wall of the PAB in the vicinity of the safety injection pumps.

Upon resolution of all outstanding structural issues (ie; topic III-2, Wind and Tornado Loadings and topic III-7.B, Design Codes, Design Criteria and Loading Combinations), CYAPCO will develop an integrated approach addressing all of these issues. A schedule for implementation of all required modifications will be finalized during the Integrated Assessment.

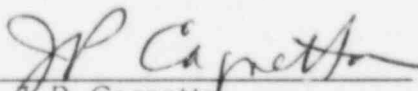
It is CYAPCO's position that completion of the above modifications will resolve all outstanding issues associated with SEP Topic III-3.A. We trust that the Integrated Plant Safety Assessment Report will reflect this status.

Very truly yours,

CONNECTICUT YANKEE ATOMIC POWER COMPANY



W. G. Council
Senior Vice President



By: J. P. Cagnetta
Vice President Nuclear and
Environmental Engineering & Construction