



June 22, 1994

Docket No. 50-213
B14881

Re: Generic Letter 87-02;
USI A-46 Completion

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Haddam Neck Plant
Request for Additional Information
(TAC No. M69450)

Connecticut Yankee Atomic Power Company (CYAPCO), by letter dated January 13, 1994,⁽¹⁾ provided the NRC Staff with the plant specific summary report which was in response to the unresolved safety issue (USI) A-46 program for the Haddam Neck Plant. The NRC Staff, by letter dated May 11, 1994,⁽²⁾ requested additional information to assist them in completing their review of the A-46 submittal. Per a telephone conversation with A. B. Wang, a one-week extension for the response was granted.

CYAPCO's response to these questions is contained in Attachment A. Additionally, Attachment B contains replacement pages to CYAPCO's USI A-46 Walkdown Summary Report⁽²⁾ which clarifies which report attachments were required to be submitted to the NRC Staff by the GIP-2 program.

(1) J. F. Opeka letter to the U.S. Nuclear Regulatory Commission, "Haddam Neck Plant, USI A-46 Walkdown Summary Report and Proposed Expansion of Licensing Basis for Verification of Equipment Seismic Adequacy," dated January 13, 1994.

(2) A. B. Wang to J. F. Opeka, "Haddam Neck Plant - Request for Additional Information (TAC No. M69450)," dated May 11, 1994.

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U.S. Nuclear Regulatory Commission
B14881/Page 2
June 22, 1994

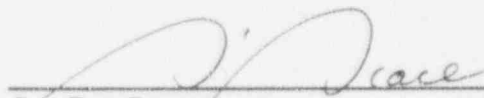
If you have any additional questions, please contact Mr. G. Papanic at (203) 665-6218.

Very truly yours,

CONNECTICUT YANKEE ATOMIC POWER COMPANY

FOR: J. F. Opeka
Executive Vice President

BY:



S. E. Scaoe
Vice President

cc: T. T. Martin, Region I Administrator
A. B. Wang, NRC Project Manager, Haddam Neck Plant
W. J. Raymond, Senior Resident Inspector, Haddam Neck Plant

Docket No. 50-213
B14881

Attachment A

Haddam Neck Plant

Request for Additional Information
(TAC M69450)

June 1994

Attachment A

**Haddam Neck Plant
Request for Additional Information
(TAC M69450)**

- Question 1.** Provide comparisons of demand-capacity spectra at the top-floor level in the containment and at control room location.
- Response 1:** Comparison of demand-capacity spectra at the top-floor level in the containment and at control room location is provided in Attachments A1 and A2.
- Question 2.** Provide revised calculations demonstrating the adequacy of the condensate storage tank (CST) and the refueling water storage tank (RWST). Provide calculations demonstrating the adequacy of the ring-type foundation of the CST.
- Response 2:** There was an oversight in the original submittal which resulted in three tanks (DWST, PWST, and RWST) being omitted from the Outlier Seismic Verification Sheet (OSVS). However, the original Screening Evaluation Work Sheet (SEWS) did describe the methodology by which the tanks were resolved in accordance with NP-6041, Appendix H. The documentation has been modified to reflect these changes, Attachments A3 through A6. Resolution of the CST has been completed and is in the process of being reviewed. The calculation for the DWST, PWST, and RWST are presently being performed. These four calculations will be forwarded to you upon their approval, within 60 days of the date of this letter. Changes affecting Attachments A3 through A8 will be incorporated into the next revision of the submittal Report 03-0240-1353, Rev. 0.
- Question 3.** Provide a summary of the implemented corrections recommended by the peer review group.
- Response 3:** The summary of the implemented corrections recommended by the peer review group is provided in Attachments A7 and A8.

Question 4. Provide a summary of the outliers identified during the review of the raceways in Reference 5.3.7. Are the weights of the fire-barriers properly considered in the seismic adequacy calculations of the raceways?

Response 4: There were no raceway outliers identified at the Haddam Neck Plant. The seismic adequacy calculations for the raceways considered the weight of the spray-on fireproof material as determined by field conditions. The unit weight for the fire barrier used is based on NUSCO Specification SP-ME-828, Rev. 0. The load calculations are shown on Page 15 of 32 in Calculation No. 0024-0099-RCWY-01, Rev. 0.

Question 5. It appears that CYAPCO has used .03g as the peak ground acceleration for defining an Operating Basis Earthquake (OBE). Does the plant safety procedure commit to shut down the plant when an earthquake event exceeds the OBE?

Response 5: CYAPCO has not used .03g to define an OBE. A study on the seismicity of the Haddam, Connecticut area determined that the average earthquake at the Haddam Neck site would have a ground acceleration of .03g's with the maximum expected earthquake having a ground acceleration of .17g's.

Original plant design required structures and systems important to safety to be seismically designed only to an SSE ground response utilizing a Housner spectra normalized to .17g. Original plant design did not stipulate a separate OBE seismic design requirement.

CYAPCO utilizes seismic monitoring equipment to detect seismic activity in the vicinity of the plant site. The Response Spectrum Analyzer is programmed to reflect both an SSE and an OBE earthquake. For instrumentation purposes, the CY OBE earthquake is assumed to be one half the SSE which is consistent with 10CFR100 Appendix A.

The Natural Disasters Procedure AOP 3.2-5 requires a plant shutdown and subsequent plant inspections when the Response Spectrum Analyzer has indicated that the OBE level has been exceeded.

Question 6. Provide confirmation that your USI A-46 implementation program contains no other significant or programmatic deviations from the Seismic Qualification Utilities Group (SQUG) commitments and the guidance sections of GIP-2.

Response 6: An investigation has been performed and confirms that there are no other significant or programmatic deviations from the Seismic Qualification Utilities Group (SQUG) commitments and the guidance sections of GIP-2.

Question 7. Describe the extent to which operator action was credited for resolving potential relay chatter issues.

Response 7: The relays in the Relay Screening and Evaluation Table (Attachment B to Relay Evaluation Report for the Haddam Neck Plant) were screened for cases where operator action (OA) was credited for resolution of potential relay chatter issues. The result of utilizing this screening process was that 17 Safe Shutdown Equipment List components may require operator action following a safe shutdown earthquake. These 17 components fall into the eight groups identified in Table 1 of Attachment A9. The effort for the possible operator actions is judged to be minimal for 16 components. The effort for one component (P-5-1A, Diesel Driven Fire Pump) is judged to be a small additional effort. None of these actions would need to be performed during the first few minutes after the event. Additional details and specifics for each component is provided in Attachment A9 through A13.

Question 8. Identify which outliers will be resolved during the upcoming refueling outage and describe the method of resolution, and identify which outliers will be resolved via the integrated safety assessment program.

Response 8: Outlier resolution is still under evaluation at the Haddam Neck Plant. However, the matrix on Attachments A14 through A17 identifies the present status of the completed work and remaining outliers.

Docket No. 50-213
B14881

Attachment B
Haddam Neck Plant
Walkdown Summary Report
Replacement Pages

June 1994