



CONNECTICUT YANKEE ATOMIC POWER COMPANY

HADDAM NECK PLANT

362 INJUN HOLLOW ROAD • EAST HAMPTON, CT 06424-3099

Docket No. 50-213

CY-05-088

MAY - 5 2005

Re: 10 CFR 50.90

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

Haddam Neck Plant
Supplemental Information, License Amendment Request

In a letter dated December 1, 2004,¹ Connecticut Yankee Atomic Power Company (CYAPCO) submitted a license amendment request for NRC review and approval of the changes to the Haddam Neck Plant (HNP) License Termination Plan (LTP). Specifically, CYAPCO requested the NRC to approve a revised method of calculating the future ground water dose resulting from buried concrete from the current "Buried Concrete Debris Model" to "a Basement Fill Model" and a revision to surface contamination release limits for various piping sizes. The purpose of this submittal is to submit supplemental information that was discussed during a teleconference between the NRC and the CYAPCO staff on May 4, 2005.

The supplemental information included in this submittal does not impact the previously submitted Significant Hazards Consideration (SHC) discussion (see SHC provided in Attachment 1 of CYAPCO's submittal dated December 1, 2004.).

There are no regulatory commitments contained in this submittal.

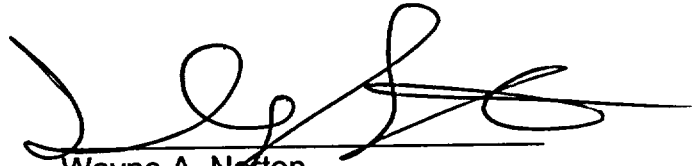
¹ W. A. Norton (CYAPCO) letter to U.S. NRC, "Haddam Neck Plant, License Amendment Request, Use of a Basement Fill Model (Revising the Buried Debris Model), and a Revision to Surface Contamination Release Limits for Various Piping Sizes", dated December 1, 2004.

4/25/05

If you should have any questions regarding this submittal, please contact Mr. G. P. van Noordennen at (860) 267-3938.

Sincerely,

CONNECTICUT YANKEE ATOMIC POWER COMPANY


Wayne A. Norton
President

5/5/05
Date

Attachment: 1. Supplemental Information – License Amendment Request
2. Revised Marked-up Pages of the HNP LTP

CC: S. J. Collins, NRC Region 1 Administrator
T. B. Smith, NRC Project Manager, Haddam Neck Plant
R. R. Bellamy, Chief, Decommissioning Branch, NRC Region 1
E. L. Wilds, Jr., Director, CTDEP, Division of Radiation

Subscribed and sworn to before me

This 5th day of May, 2005


Notary Public

Date Commission Expires: 12-31-07

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CY-05-088

Attachment 1

Haddam Neck Plant
Supplemental Information, License Amendment Request, Use of a Basement Fill
Model (Revising the Buried Debris Model), and a Revision to Surface
Contamination Release Limits for Various Piping Sizes
Clarification to Submittal dated December 1, 2004

May 2005

Clarification to the Submittal dated December 1, 2004

In a letter dated December 1, 2004, Connecticut Yankee Atomic Power Company (CYAPCO) submitted a license amendment request for NRC review and approval of the changes to the Haddam Neck Plant (HNP) License Termination Plan (LTP). The information provided below clarifies the original licensing submittal.

1. Attachment 1 of the December 1, 2004 submittal, Page 1, Section 1.1 (also discussed in other parts of the submittal): In addition to the other media such as the containment liner, embedded piping and activated rebar, discussed in the submittal, activated piping in the In-core Instrumentation (ICI) Sump area will be addressed using the Basement Fill Model in lieu of the release limits for Buried Piping. This was discussed during a March 31, 2005 teleconference with the NRC. This is appropriate because the activated material should be evaluated against the volumetric contamination criterion instead of the surface contamination criterion that applies for the release of buried piping.
2. Attachment 1 of the December 1, 2004 submittal, Page 9, Section 3.4 (other sections also): This section discusses flow holes that were to be placed in the liner to allow groundwater to pass through the containment building. CYAPCO no longer plans to place flow holes through the liner. There are no other changes to the original licensing submittal other than to change this wording. The Basement Fill Model assumes that no dilution water would pass through the Containment basement and that the only water would be the initial fill volume (provided by rain or clean water sprayed in after backfill) of the Containment Basement. Therefore, no changes are proposed to the original licensing submittal.
3. Attachment 1 of the December 1, 2004 submittal, Page 12, Section 4.1: The core samples in the ICI Sump area were originally to be taken at a depth of 3 feet. In some cases, the core samples were only taken at a depth of 2 feet. The 2 foot depth for the core sample is justified because the results have shown that the radionuclide concentrations drop greatly as the distance from the liner increases. As the value to be used for activated concrete in the calculation is the highest concentration wafer, the core sample wafer to be used is within the first 5 inches behind the liner. The sampling conducted includes this area.
4. Attachment 1 of the December 1, 2004 submittal, Page 15 to 16, Section 5.2: This section discusses that any contamination in footings outside containment will be included as an input to the Basement Fill Model for the Containment basement. Based on the current decommissioning

schedule, the Final Status Survey (FSS) and the Basement Fill Model calculation for the Containment Basement may be conducted prior to assessment of all the footings outside of Containment. In the Containment Basement Fill Model calculation, CYAPCO only plans to include the footings that have been assessed prior to the completion of the Containment Liner FSS. Other concrete footings assessed after the completion of the containment liner FSS will be included in the Basement Fill Model calculation for the Discharge Tunnel. This is justified considering all the conservatism in the Basement Fill Model methodology and considering that many, if not all, of the footings with significant activity will have been assessed by that time.

5. Attachment 1 of the December 1, 2004 submittal Tables: The tables state that sample results that are less than zero (0) will be assumed as zero (0). In conformance with the guidance of MARSSIM, the actual sample results (i.e., including negative numbers) will be used in the calculation.
6. Attachment 4 of the December 1, 2004, marked up LTP pages, Revised Table 5-7: This new table includes a row that displays a value corresponding to the total of each column. The totaling of the individual values is not appropriate and has been deleted.

As a result of the above clarifications, additional changes, are proposed to the previously submitted LTP pages (See Attachment 2 of the submittal).

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Attachment 2

Haddam Neck Plant
Supplemental Information, License Amendment Request, Use of a Basement Fill
Model (Revising the Buried Debris Model), and a Revision to Surface
Contamination Release Limits for Various Piping Sizes
Revised Marked-up Pages of the HNP LTP

May 2005

List of the Revised Marked-up (Affected) LTP Pages

<u>Page No. (s)</u>	<u>Revision Number</u>
1-6	Revision 2
5-25	Revision 2
5-57	Revision 2
6-1	Revision 2
6-16 through 6-18	Revision 2
6-19	Revision 1
6-20	Revision 2