



CONNECTICUT YANKEE ATOMIC POWER COMPANY

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

FEB 17 2005

Docket No. 50-213
CY-05-045
Re: 10 CFR 50.59

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

Haddam Neck Plant
10 CFR 50.59 Summary Report

Pursuant to the provisions of 10 CFR 50.59(d)(2), Connecticut Yankee Atomic Power Company (CYAPCO) herein submits the attached report containing a brief description of any changes, tests, and experiments, and a summary evaluation. This report covers operations at the Haddam Neck Plant for the period of January 1, 2003 to December 31, 2004.

If you have any questions, please contact me at (860) 267-3938.

Sincerely

Gerard van Noordennen
Gerard P. van Noordennen
Regulatory Affairs Manager

2-17-05
Date

Attachment: Summary Report for 10 CFR 50.59

cc: S. J. Collins, NRC Region I Administrator
T. B. Smith, NRC Project Manager
R. R. Bellamy, Chief, Decommissioning and Laboratory Branch, NRC Region
E. L. Wilds, Jr., Director, CT DEP Monitoring and Radiation Division

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HADDAM NECK PLANT

Summary Report

For

10 CFR 50.59

January 1, 2003 through December 31, 2004

CY-05-045

Haddam Neck Plant

Summary Report

10 CFR 50.59 Evaluation No.	Subject
SY- EV-03-001, Revision 2	Implementation of the NAC-MPC Storage System at Connecticut Yankee
SY- EV-03-004, Revision 0	UFSAR Change for Circulating Water System Abandonment

10 CFR 50.59 Evaluation Number: SY-EV-03-001 Revision Number: 2

Activity/Document Number: 24265-500-DCP-00006 Revision Number: 1

Activity/Document Title: Implementation of the NAC-MPC Storage System at Connecticut Yankee

A. **SUMMARY INFORMATION** (Note: This information is utilized to prepare the biennial report submitted pursuant to 10 CFR 50.59(d)(2).)

1. **Proposed Activity Description**

This DCP implements the onsite activities required for the transfer and storage of spent fuel and greater than class C (GTCC) waste at Connecticut Yankee. The spent fuel and GTCC waste will be transferred and stored in the NAC International Multi-Purpose Canister. Spent fuel and GTCC waste will be stored in the NAC-MPC system on the Independent Spent Fuel Storage Installation (ISFSI) facility pad, which will provide a secure, monitored storage area

2. **Reason for Proposed Activity**

To allow decommissioning of the Connecticut Yankee plant to proceed, the spent fuel and GTCC waste need to be removed from the Spent Fuel Building and stored at the ISFSI.

3. **Restrictions or Limitations of Evaluation**

This evaluation addresses the on site activities required to support the implementation of the NAC-MPC storage system at CY. Construction of the ISFSI (civil, electrical and instrumentation), the VCC's, the Spent Fuel Building Modifications, the yard crane upgrade and the yard crane trolley upgrade were implemented under other DCP's.

4. **Summary of Evaluation**

This DCP can be implemented without a License Amendment. The activities related to this DCP involve loading fuel into the NAC-MPC canisters using existing fuel handling equipment and approved project procedures. The canisters will be lifted from the spent fuel pool in a transfer cask using the single failure proof handling system and in accordance with plant commitments to NUREG-0612. Loading fuel and GTCC waste, closure of the canister and transfer of the canister into a concrete cask have been evaluated and are controlled using approved project procedures. Movement of the concrete cask out of the Spent Fuel Building, loading onto the heavy haul trailer and transfer to the ISFSI has been evaluated and load tests of the trailer and haul route satisfactorily performed. Storage of GTCC waste on the ISFSI pad is evaluated and is acceptable when stored in the NAC-MPC supplied canisters and concrete casks. The NAC-MPC system design and accidents are evaluated under 10 CFR 72. The 50.59 evaluations determined that the DCP activities are acceptable to implement.

10 CFR 50.59 Evaluation Number: SY-EV-03-004 Revision Number: 0Activity/Document Number: LBDCR # 8 Revision Number: 0Activity/Document Title: UFSAR Change for Circulating Water System Abandonment

A. **SUMMARY INFORMATION** [This information is utilized to prepare the biennial report submitted pursuant to 10 CFR 50.59(d)(2).]

1. **Proposed Activity Description**

The UFSAR Section 11.2, "Liquid Radwaste Management System" presently states in Section 11.2.2 that "During (waste water) discharge, circulating water is run to ensure the waste water does not become stagnant in the discharge canal." The Safety Department (SD) has recently performed analyses which take credit for tidal mixing of the discharge canal and has determined that dilution of waste water discharges by the circulating water system is not required. SD has revised the Radiological Effluent Monitoring & Offsite Dose Calculation Manual (REMODOCM) to remove the requirement to run circulating water during waste water discharges.

This 10 CFR 50.59 Evaluation addresses the removal of the use of circulating water in conjunction with waste water discharges as described in the UFSAR. This evaluation also provides a basis to abandon the remainder of the circulating water system. It also fulfills the requirement to revise 10 CFR 50.59 Evaluation SY-EV-97-0016 when any available portion of the circulating water system is reclassified to abandon.

This 10 CFR 50.59 Evaluation only addresses the removal of the use of circulating water as described in the UFSAR since all other proposed changes have been adequately dispositioned in the 10 CFR 50.59 screen.

2. **Reason for Proposed Activity**

SD has recently performed analyses which take credit for tidal mixing of the discharge canal and has determined that dilution of waste water discharges by the circulating water system is not required. SD has revised the REMODOCM to remove the requirement to run circulating water during waste water discharges. Use of the circulating water system must be discontinued and the system must be abandoned to permit removal of the main steam condenser and associated support systems and to permit further decommissioning of the Turbine Building.

3. **Restrictions or Limitations of Evaluation**

There are no restrictions or limitations on this evaluation. Waste water discharges are controlled by the REMODOCM and plant procedures.

4. Summary of Evaluation

This 10 CFR 50.59 Evaluation addresses the removal of the use of circulating water in conjunction with waste water discharges as described in the UFSAR. This evaluation also provides a basis to abandon the remainder of the circulating water system. It fulfills the requirement to revise Safety Evaluation SY-EV-97-0016 when any available portion of the circulating water system is recategorized to abandon. This change has been determined to be safe and can be implemented without prior NRC approval.