



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

February 20, 2019

Carla M. Pizzella
Vice President, Chief Financial Officer,
and Treasurer
Connecticut Yankee Atomic
Power Company
362 Injun Hollow Road
East Hampton, CT 06424-3099

SUBJECT: NUCLEAR REGULATORY COMMISSION'S ANALYSIS OF CONNECTICUT
YANKEE ATOMIC POWER COMPANY'S INITIAL AND UPDATED
DECOMMISSIONING FUNDING PLANS FOR THE HADDAM NECK PLANT
INDEPENDENT SPENT FUEL STORAGE INSTALLATION

Dear Ms. Pizzella:

By letter dated December 17, 2012, Connecticut Yankee Atomic Power Company (CYAPCO) submitted, for U.S. Nuclear Regulatory Commission (NRC) staff review and approval, an initial decommissioning funding plan (initial DFP) for the independent spent fuel storage installation (ISFSI) at Haddam Neck Plant (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12363A024). By letter dated December 14, 2015, CYAPCO submitted, also for the NRC staff review and approval, an updated decommissioning funding plan (updated DFP) for the ISFSI at Haddam Neck Plant (ADAMS Accession No. ML16020A209). In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR), Sections 72.30(b) & (c) and using NUREG-1757, Vol. 3, Rev. 1, "Consolidated Decommissioning Guidance," the NRC staff reviewed the initial and updated DFPs submitted by CYAPCO, including the initial and updated decommissioning cost estimates (DCE) and the method of assuring funds for decommissioning.

Pursuant to 10 CFR 72.30(b), each holder of, or applicant for, a license under Part 72 must submit for the NRC review and approval a DFP containing information on how reasonable assurance will be provided that funds will be available to decommission its ISFSI. The DFP must contain a detailed DCE, in an amount reflecting: (1) the cost of an independent contractor to perform all decommissioning activities, (2) an adequate contingency factor, and (3) the cost of meeting the 10 CFR 20.1402 unrestricted use criteria (or the cost of meeting the 10 CFR 20.1403 restricted use criteria, provided the licensee can demonstrate its ability to meet these criteria). The licensee's DFP must also identify and justify using the key assumptions contained in the DCE. Further, the DFP must describe the method of assuring funds for ISFSI decommissioning, including means for adjusting cost estimates and associated funding levels periodically over the life of the ISFSI. Additionally, the DFP must specify the volume of onsite subsurface material containing residual radioactivity that will require remediation to meet the criteria for license termination, and contain a certification that financial assurance for ISFSI decommissioning has been provided in the amount of the DCE.

The NRC staff reviewed and analyzed the information submitted by CYAPCO in its initial DFP on how reasonable assurance will be provided that funds will be available to decommission the ISFSI, including the amount of the DCE and the method of assuring funds for decommissioning.

In the initial DFP, CYAPCO estimated that the total cost to decommission the ISFSI at Haddam Neck Plant for unrestricted use is \$17.7 million, in 2012 dollars. Based on its analysis of CYAPCO's initial DFP, the NRC staff finds that the submitted DCE: is based on reasonable costs of a third party contractor; includes an adequate contingency factor; reflects the cost of meeting the 10 CFR 20.1402 criteria for unrestricted use; and is based on reasonable and documented assumptions. Therefore, the NRC staff finds that the DCE adequately estimates the cost, at this time, to carry out required ISFSI decommissioning activities prior to license termination, and that the DCE is acceptable.

CYAPCO relies on an account within its Nuclear Decommissioning Trust (entitled "ISFSI Radiological Decom") in the amount of \$17.7 million as financial assurance for ISFSI decommissioning, a method authorized by 10 CFR 50.75(e) and 10 CFR 72.30(e). The ISFSI Radiological Decom segregates the funds for decommissioning of the ISFSI from the larger balance of funds for ongoing management of irradiated fuel and greater than Class C waste held in the Nuclear Decommissioning Trust. This is allowed because Haddam Neck is a general licensed ISFSI under 10 CFR Part 50. The NRC staff finds that the aggregate dollar amount of the licensee's financial instrument provides adequate financial assurance to cover its cost estimates, and therefore, that this financial instrument is acceptable.

Pursuant to 10 CFR 72.30(c), at the time of license renewal and at intervals not to exceed 3 years, the initial DFP required to be submitted by 10 CFR 72.30(b) must be resubmitted with adjustments as necessary to account for changes in costs and the extent of contamination (updated DFP). The updated DFP must update the information submitted with the original or prior-approved plan. In addition, the updated DFP must specifically consider the effect of the following events on decommissioning costs, as required by 10 CFR 72.30(c)(1)-(4): (1) spills of radioactive material producing additional residual radioactivity in onsite subsurface material, (2) facility modifications, (3) changes in authorized possession limits, and (4) actual remediation costs that exceed the previous cost estimate.

In the updated DFP, CYAPCO estimates that the total cost to decommission the ISFSI at Haddam Neck Plant for unrestricted use is \$19.8 million, in 2015 dollars. The updated decommissioning cost estimate (updated DCE) considered the requirements of 10 CFR 72.30(c)(1)-(4) and the licensee provided a narrative on each requirement. The licensee's submittal states, in part, that there have been:

1. No spills of radioactive material producing additional residual radioactivity in onsite subsurface material have occurred;
2. Facility modifications that affected the ISFSI, including those that were implemented within the licensed area, were assessed for impact;
3. There were no changes in authorized possession limits; and
4. No active decommissioning has occurred, thus, there have not been any actual remediation costs that exceed the previous cost estimate.

Based on its review of CYAPCO's submittal, the NRC staff finds that the updated DCE: is based on reasonable costs of a third party contractor; includes an adequate contingency factor; reflects the cost of meeting the 10 CFR 20.1402 criteria for unrestricted use; and is based on reasonable and documented assumptions. Therefore, the NRC staff finds that the updated

DCE adequately estimates the cost, at this time, to carry out required ISFSI decommissioning activities prior to license termination, and that the updated DCE is acceptable.

CYAPCO currently relies on a separate external fund as discussed above as financial assurance for ISFSI decommissioning, a method authorized by 10 CFR 50.75(e) and 10 CFR 72.30(e). The NRC staff reviewed the licensee's updated DFP for Haddam Neck and finds that the aggregate dollar amount of the licensee's financial instrument provides adequate financial assurance to cover its updated DCE.

Therefore, based on its review, the NRC staff finds that the initial and updated DFPs contain the information required by 10 CFR 72.30(b) and (c) and CYAPCO has provided reasonable assurance that funds will be available to decommission the Haddam Neck Plant ISFSI.

In addition to the NRC staff's review of the CYAPCO's initial and updated DFPs, the NRC staff completed an environmental review. On March 6, 2019, the NRC staff published the results of that review in an environmental assessment and finding of no significant impact in the *Federal Register* (84 FR 8122). The NRC staff determined there were no environmental impacts from the NRC staff's review and approval of CYAPCO's initial and updated DFPs.

If you have any questions regarding this matter, please contact me at (301) 415-5722 or Pamela Longmire, of my staff, at (301) 415-7465.

Sincerely,

/RA/

Ilka Berrios, Acting Chief
Spent Fuel Licensing Branch
Division of Spent Fuel Management
Office of Nuclear Material Safety
and Safeguards

Docket No.: 72-39
CAC No.: 001028
EPID No.: L-2017-FPR-0031

Enclosure:
Environmental Assessment

SUBJECT: NUCLEAR REGULATORY COMMISSION'S ANALYSIS OF CONNECTICUT YANKEE ATOMIC POWER COMPANY'S INITIAL AND UPDATED DECOMMISSIONING FUNDING PLANS FOR THE HADDAM NECK PLANT INDEPENDENT SPENT FUEL STORAGE INSTALLATION, DOCUMENT DATE: February 20, 2019

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ADAMS Package No.: ML19070A032 Memo: ML19070A033 Encl: ML19070A034

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