

July 8, 1994

Docket No. 50-029

Mr. Russell A. Mellor  
Yankee Rowe Project Manager  
Yankee Atomic Electric Company  
580 Main Street  
Bolton, Massachusetts 01740-1398

Dear Mr. Mellor:

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION

In order to complete our review of the Yankee Atomic Electric Company (YAEC) Decommissioning Plan and Decommissioning Environmental Report for the Yankee Nuclear Power Station (YNPS) in Rowe, Massachusetts, we request that you submit the additional information as provided in the enclosure to this letter. This information should be submitted within 30-days of the date of this letter so that we may complete our review on schedule.

The reporting requirements contained in this letter affect only the Yankee Atomic Electric Company; therefore, OMB clearance is not required in accordance with P. L. 96-511.

Please contact me at (301) 504-1442 with any questions you may have about this request.

Sincerely,  
ORIGINAL SIGNED BY  
Sy Weiss for  
Morton B. Fairtile, Senior Project Manager  
Non-Power Reactors and Decommissioning  
Project Directorate  
Division of Operating Reactor Support  
Office of Nuclear Reactor Regulation

Enclosure:  
As stated

cc w/enclosure:  
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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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Please contact me at (301) 504-1442 with any questions you may have about this request.

Sincerely,

A handwritten signature in dark ink, which appears to read "Seymour H. Weis for", is written over the typed name.

Morton B. Fairtile, Senior Project Manager  
Non-Power Reactors and Decommissioning  
Project Directorate  
Division of Operating Reactor Support  
Office of Nuclear Reactor Regulation

Enclosure:  
As stated

cc w/enclosure:  
See next page

Mr. Russell A. Mellor

Yankee Rowe  
Docket No. 50-029

cc:

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King of Prussia, Pennsylvania 19406

NMSS STAFF QUESTIONS AND COMMENTS ON THE YANKEE NUCLEAR POWER  
STATION DECOMMISSIONING PLAN AND  
DECOMMISSIONING ENVIRONMENTAL REPORT

Decommissioning Plan

1. Section 1.4 Changes

Provide the expected status of the plant at the time of Decommissioning Plan approval, assume December 1994 for this purpose. Describe the differences in plant structures, systems, and components between that now provided in the Plan and at the assumed time of approval of the Plan.

In order to complete the NRC review, it is necessary for the staff to review those identified structures, systems, and components projected or scheduled for dismantlement during the SAFSTOR period and the process used to select structures, systems, and components for dismantlement. Please provide such a list. In addition, provide the NRC staff with a description of the YNPS process for keeping the NRC informed of dismantlement activities and other changes that will have an impact on the overall decommissioning approach.

2. Section 2.1.2 Waste Handling Alternatives

The use of waste reclamation facilities, onsite storage of waste, and any future access to available offsite disposal facilities are acceptable waste handling options. Because of the potential for long-term unavailability of offsite disposal facilities, provide the following information: the available solid waste storage capacity onsite, the estimated volume and curie inventory of waste that may be generated and stored onsite as a result of continuing dismantlement, and the estimated volume of waste that may be sent offsite to a contractor for volume reduction and/or processing during the SAFSTOR period. This information is needed in addition to that provided in Section 3.3.2, Sections 3.3.2.1, 3.3.2.2, and 3.3.2.3 of the Decommissioning Plan.

3. Section 2.2.22 SFP Cooling and Purification System

Please describe spent fuel pit limiting parameters and conditions that will be maintained to ensure that the spent fuel does not degrade during the time that it remains in the spent fuel pit. Describe the maintenance and fire protection programs for systems and areas supporting the spent fuel pit.

4. Section 2.4.1 Organization and Responsibilities

In Section 2.4.1, YAEK states that management personnel will meet or exceed the minimum qualifications for education, training, and experience outlined in ANSI N18.1-1971, for comparable positions. Identify these comparable positions, and corresponding minimum qualifications, for the Decommissioning Project Manager, and the Decommissioning Department Manager. Provide the minimum staffing levels at the YNPS, by discipline, during dismantlement periods and during periods when no dismantlement activities are occurring.

5. Section 3.1.4.4 Ground Water Samples from Observation Wells

The Decommissioning Plan indicates that tritium has been detected in three groundwater wells (two of which are near the spent fuel pool). The presence of tritium is attributed to a 1960's era leak from the Ion Exchange Pit. Please provide the basis for the conclusion that the continuing detection of tritium in this area is not due to a leak in the spent fuel pool and that the tritium can be attributed to the 1960's era leak. In addition, provide the calculations that show that the loss of spent fuel pool water is due to evaporation.

6. Section 3.1.5 Radiological Environmental Monitoring Program

Indications of residual contamination in the sediments of Sherman Pond and in the discharge from Sherman Spring qualify these areas as potentially affected according to the definition in NUREG/CR-5849 "Manual for Conducting Radiological Surveys in Support of License Termination." Therefore, the map showing the boundaries of the radiologically affected area (Figure 3.1-34) should be expanded to include these two areas or provide the basis for not expanding the potentially affected area.

7. Section 3.1.6 Radiologically Affected Area Identification

It is not clear how much of the YNPS owned or controlled property outside of the owner controlled fence is considered an unaffected area for radiological survey purposes. Please describe the unaffected area that will be radiologically surveyed in accordance with NUREG/CR-5849.

8. Section 3.2.3.1 Radiation Protection Organization

The Decommissioning Plan states that positions in the Radiation Protection Organization, shown in Figure 3.2-1, may be modified during the course of decommissioning. Describe the types of modifications being considered.

9. Section 3.3.1.2 Spent Fuel Management Strategy

In accordance with 10 CFR 51.23(a), it is acceptable to store spent fuel in wet or dry storage either onsite or at an offsite location. Several fuel management alternatives are provided in Section 3.3.1.2. For purposes of our review the staff will assume that the YNPS fuel will continue to be stored in the existing Spent Fuel Pit. Inform the staff, as part of your response to this request, of any changes in your fuel storage plans.

10. Section 3.3.4 Airborne Radioactive Waste Processing

The current airborne radioactive waste processing system filters and monitors exhaust air from the Vapor Container, Primary Auxiliary Building cubicle area, Waste Disposal Building, and Spent Fuel Pit Building. Describe any other areas that may be the source of significant airborne activity during decommissioning and how airborne releases from these areas would be monitored and filtered if required.

11. Section 3.3.5 Mixed Waste

The Decommissioning Plan addressed management of mixed waste and transportation of mixed waste, but does not provide any information about the management of the existing mixed wastes at YNPS. If mixed waste has been stored onsite, provide the total volume, total activity, and the present disposition of such wastes.

12. Section 4.1.1 Site Release Criteria

Please note that surface contamination from H-3 and Fe-55 are considered beta-gamma emitters when determining compliance with Table 1 of Regulatory Guide 1.86. Without NRC approval to the contrary, the applicable surface contamination limit for both H-3 and Fe-55 is 5000 dpm/100 cm<sup>2</sup>.

NRC recently granted an exception to the RG 1.86 limits for H-3 and Fe-55 for activated concrete and steel at Shoreham Nuclear Power Station and Fort St. Vrain Station, which are both currently dismantling their facilities. The basis for the NRC decision is described in SECY-94-145, "Increase of Tritium and Iron-55 Unrestricted Use Limits For Surface Contamination At Shoreham and Fort St. Vrain," May 27, 1994.

Provide the unrestricted use limit that YAEC proposes to apply to H-3 and Fe-55 in activated materials at YNPS.



13. Section 4.2 Final Survey

Section 4.2 does not provide adequate detail on final survey methods. A detailed plan is required prior to initiating the final survey. NUREG/CR-5849 describes acceptable survey plan information. Provide a commitment in Section 4.2 of the Decommissioning Plan that Yankee Atomic will use the guidance of NUREG/CR-5849 to conduct the final survey and to submit the final survey plan at the initiation of dismantling activities.