

SEP 3 0 1985

FCUP:KK  
70-3027

Public Service of New Hampshire  
New Hampshire Yankee Division  
ATTN: George S. Thomas, Vice President  
Nuclear Production  
P.O. Box 300  
Seabrook, New Hampshire 03874

Gentlemen:

We have completed our initial review of your August 1, 1985, application for the receipt, possession, and storage of fresh fuel assemblies and other special nuclear materials required for operation of Seabrook Station, Unit 1. We find that additional information (see enclosure) is required to complete our safety review of your application for the requested activities. The additional information should be included in replacement pages (or additional pages, as necessary) to your application.

Our review of your application will continue upon receipt of the requested information. Please contact us if you have any questions (301-427-4510).

Sincerely,

Original signed by:  
Kishore Kodali

Kishore K. Kodali  
Uranium Process Licensing Section  
Uranium Fuel Licensing Branch  
Division of Fuel Cycle and  
Material Safety, NMSS

Enclosure: As stated

Distribution

Docket File 70-3027	NMSS R/F	Region I
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COMMENTS ON SEABROOK STATION, UNIT 1

SPECIAL NUCLEAR MATERIALS LICENSE APPLICATION

1. Page 8, Section 1.1.5

State the active fuel length (inches) of the fuel rod in an assembly to be stored at the Seabrook Station (not given in Table 1.1.4-1).

2. Page 10, Section 1.2.2

- a. State the maximum number of loaded shipping containers that will be allowed onsite at one time.
- b. Describe the loaded shipping container array, i.e., stacking arrangement, spacing between stacks of shipping containers (e.g., minimum spacing between groupings of 60 shipping containers and from other fuel assemblies at an inspection station or assembly storage array).
- c. Describe in detail the outside holding area for the shipping containers. Description of measures to be taken to prevent damage to the fuel from both nature and man should be given. In addition, description of the stacking of the shipping containers should also be provided.
- d. Provide the design specifications of the storage racks in the new fuel storage vault in sufficient detail so that an independent nuclear criticality safety analysis of the new fuel storage vault may be performed. Information required to complete the evaluation include the inside dimension and thickness of the steel canister surrounding each assembly, description of the arrangement of fuel assemblies (e.g., number of rows, assemblies/row, center-to-center spacing), and the distance from the walls of the vault to the nearest fuel assembly.
- e. State the number of assemblies that are covered by each steel plate. In addition, state the maximum number of fuel assemblies that will be left uncovered at one time.

3. Page 14, Section 1.2.5

- a. Describe the training operations personnel involved in fuel handling activities shall receive in fuel handling and storage operations prior to receipt of fuel onsite.
- b. State the title and minimum qualifications (according to ANSI 3.1, 1978) of the individual responsible for implementing such training.
- c. State the title and minimum qualifications (according to ANSI 3.1, 1978) of the individual responsible for reviewing and approving all preoperational testing of fuel handling equipment.

4. Page 20, Section 2.1.2

State the site contamination limits associated with contamination control, and appropriate corrective action to be taken associated with receipt of new fuel.

5. Page 22, Section 2.1.3

Specify the frequency for calibrating radiation detection equipment.

6. Page 25, Section 2.2

State the titles and minimum qualifications of the individuals responsible for reviewing and recommending for approval plant procedures related to fuel handling and storage operations. Identify the title and minimum qualification of the individual responsible for final review and approval in plant procedures related to fuel handling and storage operations.

7. Page 27, Section 2.2.5

It should be noted that we, in the Office of Nuclear Material Safety and Safeguards, have never accepted a calculated  $k_{eff}$  of 0.98 as a safe limit. Confirm the  $k_{eff}$  is  $<0.95$  (see page 29, Section 2.2.7).

8. Page 28, Section 2.2.6

Describe in detail the station's QA program to ensure that the Boraflex meets design specifications, e.g., minimum B-10 content, is securely positioned on all four sides of the spent fuel racks, and is installed in their design locations.

9. Page 29, Section 2.2.7

Identify the fire fighting agent used in the "hose reel system" specified in Subsection 1.2.6. If it is water, please explain the use of the reel system ("The fire fighting teams and personnel are directed to use dry chemical extinguishers").

10. Page 31, Section 2.2.9

Specify the minimum distance between the two fuel assemblies out of shipping containers or out of the new/spent fuel racks.

11. Page 32, Section 2.2.9

Specify the administrative controls to be used to assure positioning of the fuel assemblies in the new fuel racks are no closer to each other than that provided in a checkerboard pattern.

12. Page 34, Section 3.0

- a. Confirm U-238 and Np-237 are in a single capsule.
- b. Identify the responsibility for the other special nuclear materials: irradiation test capsules, calibration sources, incore fission detectors, and excore detectors.
- c. Provide a description of the means used to prevent access to them by unauthorized personnel.
- d. Specify the means used to protect personnel from radiation exposure from the above materials.