

50-443  
50-469  
50-247



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Public Service of New Hampshire

April 7, 1986  
SBN-993  
T.F. B7.1.3

New Hampshire Yankee Division

United States Nuclear Regulatory Commission  
Washington, DC 20555

Attention: Mr. Vincent S. Noonan, Project Director  
PWR Project Directorate No. 5

- References:
- (a) Construction Permits CPPR-135 and CPPR-136, Docket Nos. 50-443 and 50-444
  - (b) PSNH letter (SBN-968), dated March 14, 1986, "Containment Structural Integrity Test", J. DeVincentis to V. Noonan

Subject: Containment Structural Integrity Test

Dear Sir:

In our previous letter to you [Reference (b)] we indicated that the Seabrook Containment Structural Integrity Test was not required to take strain readings at the containment spring line, because it was not required by ASME III, Division 2 code requirements for "non-prototype" containments.

As noted in Reference (b), Indian Point (IP) Unit 2 is the prototype for both Seabrook Station and Washington Public Power Supply System (WPPSS) Unit 1 containment structures - all designed and constructed by UE&C. The Seabrook containments and WPPSS unit 1 are considered "non-prototype" as defined in the USNRC Regulatory Guide 1.18 (Appendix A and Article CC-6212.2 of ASME Code Section III, Division 2.

To further justify our characterization, your staff requested a comparison of the basic containment features between WPPSS Unit 1, IP Unit 2 and Seabrook Unit 1. Accordingly enclosed please find, as Attachment 1 the comparison that identifies those features which show that Seabrook's containment configuration, design and construction are nearly identical to the prototype plant.

Should you have any questions regarding this matter, please do not hesitate to contact us.

Very truly yours,

J. DeVincentis, Director  
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cc: Atomic Safety and Licensing Board Service List

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ATTACHMENT 1

IP-2, WPPSS-1 and SB-1 are conventional steel-lined reinforced concrete containments (PWR). They are nearly identical in configuration, design, and construction. All these containments are made of three basic structural elements - the circular base mat, an upright cylindrical shell, and a hemispherical dome. Comparisons of basic features of these three containments are as follows:

	<u>IP-2</u>	<u>WPPSS-1</u>	<u>SB-1</u>
1. Cylindrical Wall:			
a. Inside Diameter	135'-0"	150'-0"	140'-0"
b. Thickness	4'-6"	4'-6"	4'-6"
c. Height from top of base mat to spring line	148'-0"	166'-0"	149'-0"
2. Hemispherical Dome:			
a. Inside Radius	67'-6"	75'-0"	70'-0"
b. Thickness	3'-6"	3'-6"	3'-6"
3. Circular base mat thickness	10'-0"	17'-6"	10'-0"
4. Diameter of Equipment Hatch Opening	16'-0"	25'-0"	28'-0"
5. Diameter of Personnel Airlock Opening	8'-6"	9'-0"	7'-1-1/2"
6. Test Pressure	54 psig	60 psig	60 psig

Based on above, it is justified to consider SB-1 Containment as "nonprototype." Being "nonprototype" containment, it does not incorporate the following "new or unusual design features" as defined in Appendix A of Regulatory Guide 1.18:

1. A dome with a shape other than hemispherical.
2. An opening larger than 0.2D, where D is the internal diameter of the cylinder.
3. Two openings with a diameter greater than 0.15D that are separated by a distance of less than 0.2D.
4. A connection of the cylindrical wall to the bottom slab or to the dome by a sliding joint, a hinge or a combination of sliding joint and hinges.
5. A pattern of main reinforcing other than vertical straight bars and horizontal hoop.
6. An intermediate interior floor connected to the wall.
7. Any other structural design feature that may decrease the safety margins from those of a containment confirmed by an acceptance test.