



Public Service of New Hampshire

SEABROOK STATION  
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December 20, 1983

SBN- 604  
T.F. B7.1.2

United States Nuclear Regulatory Commission  
Washington, D. C. 20555

Attention: Mr. George W. Knighton, Chief  
Licensing Branch No. 3  
Division of Licensing

References: (a) Construction Permits CPPR-135 and CPPR-136, Docket  
Nos. 50-443 and 50-444  
(b) USNRC Letter, dated July 11, 1983, "Amendment 49 to  
March 30, 1973 Application to Construct and Operate  
Seabrook Station Unit 1 and Unit 2", W. P. Johnson to  
G. W. Knighton

Subject: Containment High-Range Radiation Monitor Location

Dear Sir:

Section 12.3.4.1 ("Area Radiation Monitoring System") of the Safety  
Evaluation Report includes a discussion of the Applicant's compliance with  
NUREG-0737, Item II.F.1(3) ("Containment High-Range Radiation Monitor"). The  
SER contains the following wording:

II.F.1(3) Containment High-Range Radiation Monitor

Seabrook Station will have two high-range radiation monitors installed in  
containment. These monitors will be designed, located, calibrated, and  
qualified in accordance with Table II.F.1-3 of NUREG-0737 and will have a  
separate read out in the electronics cabinet located outside containment in  
the electrical tunnel. Indication and alarm will be provided in the Control  
Room.

Subject to a formal submittal of this TMI Action Plan Item followed by  
receipt of information showing the exact location of the monitors and staff  
acceptance of this location, the staff finds that Seabrook meets the position  
of Item II.F.1, Attachment 3 of NUREG-0737.

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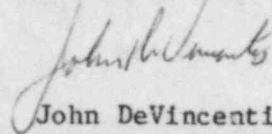
In OL Application Amendment 49, which was submitted in May 1983 [Reference (b)] we included a new FSAR Section 12.3.4.1.b.3 ("In-Containment High-Range Monitoring"). We believe that this new FSAR section satisfies the "formal submittal of the TMI Action Plan Item" [II.F.1(3)].

To satisfy the requirement that we specify the "exact location of the monitors", we have revised FSAR Section 12.3.4.1.b.3, accordingly.

The attached revised FSAR section will be included in a future OL Application Amendment.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY

  
John DeVincentis  
Project Manager

Attachment

cc: Atomic Safety and Licensing Board Service List

A typical channel is shown in Figure 12.3-18.

High radiation levels during refueling at the manipulator crane area in the containment structure initiates isolation of the containment purge and vent system.

Those detectors which are designated as non-Class 1E, and are located inside the containment structure are not designed to operate following a major LOCA, and are assumed to be not available to monitor post-LOCA conditions inside containment.

Refer to Section 11.5.2 for a discussion of the local microprocessor provisions and operating details.

1. Area Monitor Detectors

The area monitors employ Geiger-Mueller and ion chamber gamma detectors, as indicated on Table 12.3-13.

2. Class 1E Requirements

Separate redundant cabinets are provided in the control room for control, recording and remote indication for those monitors in Table 12.3-13 designated as Class 1E. These cabinets and Class 1E area monitors are powered from their respective Class 1E inverters. Class 1E monitors supply their data to the RDMS host computer through an IEEE-279 acceptable isolation device. No information or alarm setting is permitted between the RDMS host computer and the Class 1E equipment. All set-point changes and check-source insertions are performed locally or from hard-wired modules in the control room.

3. In-Containment High Range Monitoring

Redundant Class 1E detectors are located inside containment and are intended to monitor conditions during post-LOCA conditions. The detector range is  $10^0$ - $10^7$  R/hr. The electronics cabinet is located outside containment in the electrical tunnels. Indication and alarm is provided in the control room. These monitors will be designed, located, calibrated and qualified in accordance with Table II.F.1-3 of NUREG-0737.

*INSERT*  
*(see next page)*

4. Area Monitor Channel Description

(a) Containment Manipulator Crane Area Monitor-Channels 6535 A and B

Redundant Class 1E detectors are located on the manipulator crane. In the event of a fuel handling accident, these monitors isolate the containment on-line and off-line purge isolation valves. Indication and alarm is provided locally and in the main control room.

Insert For  
FSAR Section 12.3.4.1.b3

The detectors are located on the steam generator biological shield wall approximately six feet above the floor elevation. This location was selected to provide the detectors as large a view of containment as possible, consistent with affording ease of access for maintenance and calibration.



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