



Public Service of New Hampshire

September 30, 1985

New Hampshire Yankee Division

SBN- 876  
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 NUREG-0896, "Safety Evaluation Report, Related to  
the Operation of Seabrook Station, Units 1 and 2", dated  
March 1983

Subject: SER Outstanding Issues; Materials Engineering Branch (MtEB)  
Concerns

Dear Sir:

In the Seabrook Station's Safety Evaluation Report (SER), the staff indicated that there were several MtEB issues still left unresolved. In our efforts to close out all remaining licensing activities on this project, we are herein, via Attachment A, including the responses to those issues still unresolved in SER Sections 4.5.1, 4.5.2, 5.2.3, and 6.1.1.

Additionally, we have provided in Attachment B a status list of active MtEB review items. Presently, we are still active in closing out the open issues regarding the Preservice and Inservice Inspection Programs, and we believe that we have sufficiently addressed the remaining MtEB issues with information provided herein.

Our assessment of the eleven unresolved MtEB SER issues indicates there are nine issues which require evaluation and action by your staff. We are anticipating a submittal in the near term that should resolve our remaining PSI/ISI issues.

The Seabrook Project would very much appreciate any effort on your staff's part to include the resolution of these outstanding items in the next

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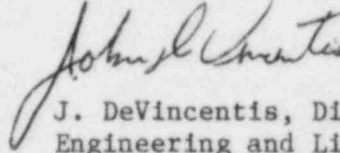
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supplement to the Seabrook Station's SER. Should you or your staff require any additional support regarding these issues, please do not hesitate to contact us.

Very truly yours,

A handwritten signature in cursive script, appearing to read "John DeVincentis".

J. DeVincentis, Director  
Engineering and Licensing

Attachments

cc: Atomic Safety and Licensing Board Service List

William S. Jordan, III  
Diane Curran  
Harmon, Weiss & Jordan  
20001 S. Street, N.W.  
Suite 430  
Washington, D.C. 20009

Robert G. Perlis  
Office of the Executive Legal Director  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Robert A. Backus, Esquire  
116 Lowell Street  
P.O. Box 516  
Manchester, NH 03105

Philip Ahrens, Esquire  
Assistant Attorney General  
Augusta, ME 04333

Mr. John B. Tanzer  
Designated Representative of  
the Town of Hampton  
5 Morningside Drive  
Hampton, NH 03842

Roberta C. Pevear  
Designated Representative of  
the Town of Hampton Falls  
Drinkwater Road  
Hampton Falls, NH 03844

Mrs. Sandra Gavutis  
Designated Representative of  
the Town of Kensington  
RFD 1  
East Kingston, NH 03827

Jo Ann Shotwell, Esquire  
Assistant Attorney General  
Environmental Protection Bureau  
Department of the Attorney General  
One Ashburton Place, 19th Floor  
Boston, MA 02108

Senator Gordon J. Humphrey  
U.S. Senate  
Washington, DC 20510  
(ATTN: Tom Burack)

Diana P. Randall  
70 Collins Street  
Seabrook, NH 03874

Donald E. Chick  
Town Manager  
Town of Exeter  
10 Front Street  
Exeter, NH 03833

Brentwood Board of Selectmen  
RED Dalton Road  
Brentwood, NH 03833

Richard E. Sullivan, Mayor  
City Hall  
Newburyport, MA 01950

Calvin A. Canney  
City Manager  
City Hall  
126 Daniel Street  
Portsmouth, NH 03801

Dana Blsbee, Esquire  
Assistant Attorney General  
Office of the Attorney General  
208 State House Annex  
Concord, NH 03301

Anne Verge, Chairperson  
Board of Selectmen  
Town Hall  
South Hampton, NH 03827

Patrick J. McKeon  
Selectmen's Office  
10 Central Road  
Rye, NH 03870

Carole F. Kagan, Esquire  
Atomic Safety and Licensing Board Panel  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Mr. Angi Machiros  
Chairman of the Board of Selectmen  
Town of Newbury  
Newbury, MA 01950

Town Manager's Office  
Town Hall - Friend Street  
Amesbury, MA 01913

Senator Gordon J. Humphrey  
1 Pillsbury Street  
Concord, NH 03301  
(ATTN: Herb Boynton)

ATTACHMENT AResponses to Previously Unresolved MteB IssuesA. SER Section 4.5.1 Concern (C-7)

The applicant must confirm that the aging and tempering temperatures of heat treatable materials in the CRDM are in accordance with staff guidelines.

Response

All heat treatable materials in the CRDM are classified as Non-Nuclear Safety and, therefore, do not fall under the requirements of the ASME B&PV Code. These non-nuclear safety heat treatable materials are primarily 410 SST components which are heat treated in accordance with ASTM specifications or other Westinghouse internal material procurement specifications. The minimum heat treatment temperature of the stainless steel materials in the CRDM was equal to or greater than 1050°F.

B. SER Section 4.5.2 Concern (C-7)

The applicant must confirm that the aging and tempering temperature of heat treatable materials of the reactor internals are in accordance with staff guidelines.

Response

The heat treatable materials used in the reactor internals are made of Inconel X750 (SA 637, Grade 688). The aging and tempering of the Inconel X750 (SA 637, Grade 688) materials is performed in accordance with Westinghouse Specification A637C01. This heat treatment is modified slightly from the heat treatment specified in SA 637 in order to develop the material properties required for Westinghouse PWR service conditions. All subsequent testing and examinations are performed in accordance with ASME B&PV Code, Section III, Subsection NG.

C. SER Section 5.2.3 Concern No. 1 (0-9)

The applicant has not provided required fracture toughness data and has not demonstrated compliance with 10CFR50, Appendix G, for the RCPB Materials. The applicant must provide evidence of compliance for staff review.

Response

FSAR Sections 5.2.3.3 and 5.3.1.5 sufficiently describe the fracture toughness of the ferritic RCPB materials and provide evidence of compliance with 10CFR50, Appendix G. A minor change in our FSAR Amendment 55, Section 5.2, clarifies the location of the required fracture toughness data.

Responses to Previously Unresolved MtEB Issues  
(Continued)

D. SER Section 5.2.3 Concern No. 2 (C-11)

The applicant has not addressed limiting RCPB components constructed of austenitic stainless steel to a maximum strength of 90,000 psi. This must be confirmed to provide the staff with a basis for evaluating the assurance of RCPB integrity.

Response

Austenitic stainless steels used in the construction of the RCPB components are used in the annealed condition and, therefore, do not have a yield strength greater than 90,000 psi.

E. SER Section 6.1.1 Concern (C-10)

The applicant must address the adequacy of the fracture toughness of ESF components made of ferritic steels considering their function and environmental conditions associated with normal operation, maintenance, testing, and postulated accidents.

Response

All ferritic steels used for the Engineered Safety Features are tested and certified to the requirements of the ASME B&PV Code, Section III. The required testing, as dictated by the rules of Section III, has been performed for each heat of material used and documented on Certified Material Test Reports. These reports are part of the final QA data package for each component.

ATTACHMENT BStatus of Unresolved MtEB Issues

<u>SER Section</u>	<u>Description</u>	<u>SER Issue</u>	<u>Required Action By</u>	<u>Remarks</u>
4.5.1	Confirm aging/ tempering T of heat treatable materials in CRDM are in accordance with staff guidelines.	C-7	S	See Attachment A, Response Item A.
4.5.2	Confirm aging/ tempering T of heat treatable materials in reactor internals are in accordance with staff guidelines.	C-7	S	See Attachment A, Response Item B.
5.2.3	Staff to complete review of submittal on compatibility of the thermal insulation with RCPB materials in accordance with RGI.36.	0-9	S	See FSAR Amendment 47, Page 6.1(B)-2
5.2.3	Provide required fracture toughness data in compliance with Appendix G for RCPB materials.	0-9	S	See Attachment A, Response, Item C.
5.2.3	Confirm RCPB components (austenitic SS) maximum yield strength is 90,000 psi.	C-7	S	See Attachment A, Response Item D.
6.1.1	ESF materials, supply information to address adequacy of fracture toughness of components of ferritic steels.	C-10	S	See Attachment A, Response Item E.

Status of Unresolved MtEB Issues  
(Continued)

<u>SER Section</u>	<u>Description</u>	<u>SER Issue</u>	<u>Required Action By</u>	<u>Remarks</u>
10.2.3 (3.5.1.3)	Turbine inspection - GE turbine disc integrity inspection program, subject to NRC's approval.	C-1	S	Applicant has committed to second refueling inspection which utilizes GE's inspection program. Staff to indicate applicant's use of GE inspection program is acceptable, based on staff evaluation of the GE inspection program.
10.3.6	Main steam and feedwater system material fracture toughness properties meet GDC 35.	C-32	S	Submitted in PSNH Letter SBN-661, dated June 1, 1984.
10.3.6	Provide rationale justifying waiving of fracture toughness testing of ferritic steel components on MS and FW Systems.	O-9	S	Submitted in PSNH Letter SBN-661, dated June 1, 1984.
5.2.4, 6.6.1	Inservice Inspection Program.	LC-4 O-4	A	Inservice inspection information will be provided at a future date.
5.2.4.1	Preservice Inspection Program.	O-4	A	Preservice inspection information will be provided at a future date.

LEGEND:    C - Confirmatory    O - Open    LC - License Condition  
A - Applicant    S - Staff