

U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-271/83-10

Docket No. 50-271

License No. DPR-28 Priority -- Category C

Licensee: Vermont Yankee Nuclear Power Corporation

RD 5, Box 169, Ferry Road

Brattleboro, Vermont 05301

Facility Name: Vermont Yankee Nuclear Power Station

Meeting at: NRC Region I Office, King of Prussia, Pennsylvania

Meeting conducted: April 19, 1983

NRC Personnel: C. F. Holden
C. F. Holden, Project Engineer

4/21/83
date signed

date signed

date signed

Approved by: Robert M. Gallo
R. M. Gallo, Chief, Reactor Projects
Section 1A

4/21/83
date signed

Meeting Summary:

Meeting on April 19, 1983 (Meeting Report No. 50-271/83-10)

Representatives of the Vermont Yankee Nuclear Power Corporation met with members of the NRC staff to discuss Intergranular Stress Corrosion Cracking (IGSCC) problems identified at Vermont Yankee Nuclear Power Station. The meeting accounted for 78 manhours of work by NRC personnel.

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DETAILS

1. Meeting Attendees

Vermont Yankee Nuclear Power Corporation

W. Murphy, Vice President and Manager of Operations
R. Burke, Operations Support Manager
J. Hoffman, Yankee Atomic Electric Company, Assistant to Vice President
L. Mullins, Yankee Atomic Electric Company, Inservice Inspection Coordinator
J. Lance, Yankee Atomic Electric Company, Manager, Mechanical Services
R. White, Yankee Atomic Electric Company, Senior Engineer, Mechanical Services
J. Sinclair, Yankee Atomic Electric Company, Licensing Engineer
J. Charnley, NUTECH, Project Engineer
D. Pitcairn, NUTECH, Engineering Director

NRC

J. Allan, Acting Regional Administrator
T. Martin, Director, Division of Engineering and Technical Programs
W. Hazelton, NRR, Section Leader, Materials Engineering Branch
V. Rooney, NRR, Project Manager
S. Ebnetter, Chief, Engineering Programs Branch
R. Gallo, Chief, Reactor Projects Section 1A
H. Kister, Chief, Reactor Projects Section 1C
J. Durr, Chief, Materials and Processes Section
H. Kerch, Senior Reactor Engineer
H. Gray, Reactor Engineer
J. Wiggins, Project Engineer
W. Raymond, Senior Resident Inspector, Vermont Yankee
C. Holden, Project Engineer

Other

P. Paull, State of Vermont, Nuclear Engineer

2. Purpose and Conduct of the Meeting

The meeting was held at the request of Region I to discuss with Vermont Yankee their response to IE Bulletin 83-02 and to discuss Vermont Yankee's plans to repair defects found. The topics discussed are described in the meeting agenda attached to this report.

3. Presentation and Discussion

The meeting provided a forum for open discussions between the NRC and Vermont Yankee on the techniques and selection criteria of welds inspected in response to IE Bulletin 83-02. Additionally, repair techniques for correcting the IGSCC problems were discussed.

4. Results

At the conclusion of the meeting, the NRC expressed the following comments/concerns:

a. Large Bore Piping

- (1) The sample size required in IE Bulletin 83-02 has not been complied with.
- (2) Criterion for future weld selection should be based on (a) industry failure experience, (b) welds with high carbon content and high stress, (c) welds previously field repaired, and (d) radiation areas.

b. Small Bore Piping

- (1) The remaining six jet pump risers will be examined, as previously planned by the licensee.
- (2) The technical analyses and rationales for acceptance of small bore piping must be supplied to the NRC when available.

c. Additional Items

- (1) The leak detection system must be reevaluated against NUREG-0313, Revision 1.
- (2) Susceptible, related systems, such as the residual heat removal system, must be addressed.
- (3) Ultrasonic testing techniques for measuring defects after weld overlay in areas that already have sub-arc clad must be demonstrated.
- (4) Review responsibility is transferred to NRR.
- (5) ALARA considerations require attention due to local high radiation areas at Vermont Yankee.

ATTACHMENT 1

MEETING AGENDA

1. Meeting Purpose.....J. Allan, Acting Regional Administrator
2. Introduction.....Vermont Yankee
3. Program.....Vermont Yankee
 - a. Joint Selection Criteria
 - b. Inspection Methodology
 - c. Findings
4. Proposed Action.....Vermont Yankee
 - a. Large Bore Piping
 - Justification of 1 Cycle Operation
 - Evaluation of Further Inspections
 - b. Small Bore Piping
 - Repairs
 - Further Inspections
 - As Found Stress Analysis
5. Further Programs.....Vermont Yankee
 - Evaluation of Remedies
6. NRC Response.....T. Martin, Director, Division of Engineering and Technical Programs