U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-443/86-06

Docket No. 50-443

License No. CPPR-135 Category B

Licensee: Public Service Company of New Hampshire

1000 Elm Street

Manchester, New Hampshire 03105

Facility Name: Seabrook Station, Unit 1

Inspection At: Seabrook, New Hampshire

Inspection Conducted: February 10 - 28, 1986

Inspectors: A. Finkel — 3-27-86
A. Finkel, Lead Reactor Engineer — date

A. Finkel for M. Dev — 3-27-86
M. Dev, Reactor Engineer — date

A. Finkel for L. Cheung — 3-27-86
L. Cheung, Reactor Engineer — date

Approved by: Jon R. Johnson — 3/27/86
J. Johnson, Chief, Operational Programs Section, Operations Branch, DRS — date

Inspection Summary: Routine, announced inspection on February 10 - 28, 1986 (Inspection Report 50-443/86-06).

Areas Inspected: Design changes and modifications, quality assurance/quality control interfaces, independent measurements, surveillance testing procedures, maintenance work request procedures and licensee actions on previous inspection findings.

Results: No violations were identified.

DETAILS

1.0 Persons Contacted

R. Guillette, Assistance Construction QA Manager
**G. Kann, Test Group Manager
***G. Kingston, Compliance Manager
**G. McDonald, Construction QA Manager
*W. Middleton, QA Staff Engineer
*D. Perkins, QA Engineer
*P. Dikle, Audit/Trending Manager
***V. Sanchez, Licensing Engineer
**W. Sullivan, QA Engineer
**J. Tefft, Standards Project Engineer
*J. Warnock, Nuclear Quality Manager

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***R. Barkley, Reactor Engineer
***A. Cerne, Senior Resident Inspector
**J. Hunter, Reactor Engineer
**J. Johnson, Chief, Operational Programs Section
***D. Ruscitto, Resident Inspector
**H. Van Kessel, Reactor Engineer

*Denotes those present at the exit interview on February 14, 1986.
**Denotes those present at the exit interview on February 28, 1986.
***Denotes those present at both exit interviews.

2.0 Follow-up of Previous Inspection Findings

(Closed) CDR 85-00-09: 10 CFR 50.55(e) Deficiency Regarding Station Batteries Installation. The installed Class 1E Station Batteries EDE-B-1A, 1B, 1C and 1D had gaps between the battery cells and the side or end battery rack stringers in excess of the vendor recommended gaps. The vendor (GNB Batteries-Gould) recommended 1/4" (maximum) spacing between the cells and the end stringers and 3/8" (maximum) spacing between the cells and the side stringers . The vendor recommendation was based on their equipment seismic qualification data.

The licensee addressed this deficiency via Seabrook Construction Deficiency Report (CDR) 85-00-09. Subsequently, the installation deficiency was corrected as per station Work Request (WR) ED7E-0183 and Engineering Change Authorization (ECA) 03/105045A.

The inspector verified that the licensee has corrected the installation deficiency by providing styrofoam spacers between the gaps as suggested by the vendor. The related installation documents were found to be adequate.

Based on the above, the inspector determined that the licensee's action is complete. This item is closed.

(Closed) Unresolved Item 85-06-01 - No hydrant isolation valve procedure identifying valve positions has been written to comply with the requirements of the Fire Protection Program Evaluation and Comparison to BTP APCSB 9.5-1, Appendix A. (Reference Attachment 1)

To comply with the requirements of the Seabrook Station Technical Specification (TS) paragraphs 4.7.9.1.1.e and 4.7.9.2.a and the Seabrook Station Fire Protection Program Manual (SSFP), the licensee issued a Fire Protection System Monthly Valve Alignment Check procedure, No. OX0443.03, Revision 00, February 4, 1986. This procedure requires a monthly visual inspection of the fire protection valves to verify their assigned alignment position and flow path.

The inspector verified that the valves and positions listed in procedure No. OX0443.03 were as identified in United Engineers and Contractors drawings F-604068, F-604070, F-604146 and F-604069.

This item is closed.

(Closed) Design Review Weakness 85-15-03 - Discrepancies in NCR's and ECA's, such as lack of evident technical justification for accept-as-is dispositions, lack of "affected" documents being identified and approval of inaccurate problem and disposition descriptions, and lack of a consistent review of procedure (AP-15) and its applicability to a new procedure (ASP-3) which identified programmatic weaknesses in the administrative control of the design change program.

To correct the referenced weaknesses licensee has taken the following actions:

-- A training enhancement program was implemented for all engineering groups that prepare/disposition design change documents including ECA'a and NCR's. The training records reviewed indicated that the training enhancement classes were conducted from mid 1985 through January 1986. (Reference 1 Attachment)

-- The licensee revised Administrative Procedure No. 15, Revision 23, Project Design Changes, Engineering Change Authorization (ECA) and Request for Information (RFI), and Nonconformance procedures ASP-3, Revision 3, so that the two procedures are consistent with each other. The training for these revised procedures were given to the licensee personnel as part of the training enhancement program discussed in the above paragraph, and

-- The design change documents identified in NRC inspection report 50-443/85-15 were reviewed and revised as required. On a random sample of five documents the inspector verified that they were revised to comply with the finding identified in the inspection report. (Reference Attachment 1)

This item is closed.

(Closed) Unresolved Item 86-05-01 - The Night Order Book was not being maintained per the requirements of licensee's Operations Management Manual (OPMM) Section 2.0. Specific sections of the OPMM required clarification by the licensee to resolve specific ambiguities within this document.

Operations Management Manual (OPMM), Revision 1, February 7, 1986 provided detailed instructions for the review and removal of inactive orders. The Operations Administrative Supervisor has been delegated the responsibility for reviewing the Night Order Book on a weekly basis and removing inactive orders. The Operations Administrative Office will maintain the night orders for at least one calendar year.

This item is closed.

(Closed) Violation 85-15-08 pertaining to lack of seismic installation criteria for instrument tubing across interfaces between seismic category buildings. The inspector reviewed pertinent documents and verified that the following corrective actions had been taken by the licensee:

-- Seismic installation criteria for instrument tubing across interface of seismic category buildings had been included in Installation Specification 46-1 (paragraphs 2.5.3.10.8 and 2.4.7), Revision 10, dated December 11, 1985, and Design Specification 501-3 (paragraph 2.2.10.3), Revision 4, dated November 13, 1985.

-- These seismic installation requirements were included in QC inspection attributes FIP-34 (item 5.9.2.5) and FIP-18 (item 4.4.2)

The inspector also reviewed the training records for the inclusion of these requirements, and the walkdown records which identified 10 tube clamps requiring relocation to provide flexibility. The clamp relocations were completed June 24, 1985. (Reference Attachment 1)

This item is closed.

(Closed) IE Bulletin 79-BU-01 pertaining to environmental qualification of Class IE equipment. The environmental qualification program became a generic requirement for the operational license of the nuclear facilities, as defined in 10 CFR 50.49. The licensee is required to address this issue separately to comply with the intent of 10 CFR 50.49 prior to the fuel load license.

Based on the above consideration this item is closed.

3.0 Design Control and Modification

3.1 Program Review, Implementation and Findings

The inspector reviewed the licensee's program and procedure for the station design controls, and related interface programs, such as, station maintenance, quality assurance, procurement, and nonconformance reporting. They provide a method for insuring that the modifications to the station structures, systems and components will maintain or enhance the design integrity of the station. The modification to the Seabrook Station design is controlled by the Nuclear Production Design Control (NPDC) Program Manual. The Station Administrative Procedures; MA-3.1, Work Requests; MA-3.2, Repetitive Task Sheet; MA-4.3, Temporary Modifications delineate controls and responsibilities for the design change process, and related evaluation, review, implementation, testing, and quality documentation thereto. The design change activities conducted by vendor or contractor are evaluated and approved, prior to use, in accordance with NPDC Program Manual. Errors or deficiencies identified in design documents or as-built configuration are, accordingly, evaluated, corrected and documented.

During recent management reorganization, the responsibilities for the station design changes and modifications was transferred from the Seabrook Station management to the New Hampshire Yankee Corporate management. The new organization is in the process of incorporating the Seabrook Station Nuclear Production Design Control Program philosophies into the following New Hampshire Yankee Design Control Procedures:

- DC-0001, Design Initiation
- DC-0002, Conceptual Design Processing
- DC-0003, Final Design Processing
- DC-0004, Design Review and Approval
- DC-0005, Design Change Implementation and Testing
- DC-0006, Change Authorization Processing
- DC-0007, Design Closeout
- DC-0008, Disapproved Design Processing
- DC-0009, Design Evaluation
- DC-0010, Calculations
- DC-0011, Drawing Content Control
- DC-0012, Specification Processing
- DC-0013, Technical Evaluation of Vendors

These procedures are presently in the licensee's management review process and will be implemented upon approval. A review of the licensee's programs supported that the methods for initiation, review, evaluation and approval, prior to implementing the design changes and modifications, are adequate. The program assures that the proposed changes do not involve an unreviewed safety question as described in 10 CFR 50.59. The interface procurement program addressed the method to

properly incorporate Fire Protection and Equipment Environmental Qualification requirements for the design changes, as applicable. The proposed design control procedures adequately addressed the control and responsibilities of the individual performing the design change activities, including review, approval, independent design verification, and implementation. The Design Document Control Procedure provides for controlling changes to approved design change documents, controlling and recalling obsolete design change documents, and release and distribution of approved design changes.

The responsibilities to implement design changes, and administrative control to update plant procedures, operators training and plant drawings, to reflect implemented design changes and modifications, are in effect. Presently, all plant design changes and modifications are conducted by the Architect-Engineer (United Engineers and Constructors). However, the inspector discussed with two New Hampshire Yankee (NHY) Engineers and their supervisor regarding their participation in the present and anticipated design change process. Some non-safety-related design change packages for completed works as well as works in progress were reviewed. The basic methodology of Work Requests under the plant maintenance program for safety-related and non-safety-related design changes and modifications are the same. The review indicated that the licensee's Design Control Program adequately defines organizations; provides for review, approval, post-modification acceptance testing requirements and acceptance criteria, distribution and retention of quality documentation; and designates responsibilities for review, implementation and reporting design changes to the NRC in accordance with 10 CFR 50.59.

The licensee has also established Administrative procedure MA-4.3 to conduct temporary modifications to the plant structures systems and components. The procedure provides for initiation of temporary modification request, review, approval, implementation, periodic review and preparation of related quality control documentation. Electrical jumpers, temporary mechanical modifications, and lifted leads identified as temporary modifications are supported by a safety evaluation, reviewed by the Station Operations Review Committee (SORC), approved by the Station Manager, and implemented in accordance with the approved procedures. The Administrative Controls also require that an independent verification is conducted for installation, removal and functional testing of equipment following temporary modification.

No violations were identified. However, the inspector noted that the proposed NHY Design Control Procedures have not yet been approved by the management. It appeared that the recent licensee's management reorganization has constrained the approval and implementation process of the Seabrook Station Design Control procedures. The update and effectiveness of the procedure will be verified by a later NRC inspection.

3.2 QA/QC Interface

The inspector discussed with the Operation QA Supervisor regarding QA involvement in the review, evaluation, implementation, procurement, audits, and surveillances for the station design changes and modifications. A review of the design change packages indicated that all design change activities that affect safety-related structures, systems, and components at Seabrook Station are controlled and performed per Nuclear Production Quality Assurance Program Manual. However, this manual is subject to update, review and approval of the new management, prior to its implementation.

3.3 Independent Measurement

The inspector reviewed the licensee's compliance to CDR 85-00-09 and independently measured the gaps between the battery cells and the side and end battery rack stringers, as well as, the size of the styrofoam spacers provided to meet the vendor recommended gap requirements. The licensee's corrective action was acceptable. See further discussion in Paragraph 2.

3.4 Surveillance Testing

The inspector reviewed the licensee's surveillance procedure TC 2.2 for compliance with the requirements of Seabrook Station Final Safety Analysis Report (FSAR) and Technical Specification (TS), Section 6.0.

Procedure TC 2.2 establishes the responsibility for maintaining a master index of required surveillance testing. The required test frequency, responsibilities, and test schedule are identified in this procedure. Review of this procedure could not be completed during this inspection because the procedure itself was under the review of the Station Operating Review Committee (SORC) for approval. This procedure will be reviewed during a later NRC inspection.

No violations were identified.

3.5 Maintenance Work Request Procedure MA 3.1

The NRC inspection (IE Report 50-443/86-02) conducted during January 17 - 24, 1986 reviewed the licensee's preoperational test program and maintenance program, including maintenance work request procedure, MA 3.1. Subsequent to inspection the licensee's management reorganization took place which necessitated certain changes to this procedure. During this inspection a revised draft was in the licensee's management review cycle for approval. The update and effectiveness of this procedure will be verified by a subsequent NRC inspection.

4.0 Exit Interview

The inspectors met with licensee management representative (see section 1.0 for attendees) at an interim exit on February 14, 1986, and a final exit on February 28, 1986. The inspectors summarized the scope and findings of the inspection at that time.

At no time during this inspection was written material provided to the licensee by the inspectors.

ATTACHMENT 1

DOCUMENTS REVIEWED

-- Seabrook Station Fire Protection Program Manual (SSFP)

-- Seabrook Station Fire Protection Program Evaluation and Comparison to BTP APCBS 9.5.2, Appendix A

-- Seabrook Station Fire Protection of Safe Shutdown Capability (10 CFR 50, Appendix R)

-- United Engineers and Constructors P&ID drawings F-604068, F-604070, F-604146 and F-604069

-- Seabrook Station Maintenance Management Manual (MAMM)

-- Technical Specification Surveillance Scheduling and Performance Procedure, TC 2.2, Revision 1

-- New Hampshire Yankee Operations Management Manual (OPMM), Revision 1, February 7, 1986

-- OJT/Reading Training Attendance Records, Revision 1

Course records - Project Reference Manual TP-23
Course records - AP-15, Revision 23
Course records - IPC #3 to TP-23

--	YAEC Nonconformance/LWA Report	No. 82-383
--	UE&C Nonconformance Report	No. 82-513C
--	YAEC Nonconformance Response	No. 82-373A
--	UE&C Request for Information	No. 99/105921A
--	UE&C Engineering Change Authorization	No. 05/102323A
--	UE&C Nonconformance Report	No. 73/1012679A
--	UE&C Nonconformance Report	No. 82/502H
--	UE&C Engineering Change Authorization	No. 19/105466A

-- Memo No. 42, June 11, 1985, "S.A.D." - Seismic Anchor Displacement (Tubing Spans Across Seismic Cat 1 Building Expansion Joints)

-- Memo, June 28, 1985, Seismic Anchor Displacement Walkdown

-- 10 CFR 50 Appendix B Criterion III, Design Control

-- 10 CFR 50.59, Changes, Tests, and Experiments

-- Seabrook Station Final Safety Analysis Report, Section 13.5, Plant Procedures and Section 17.2, Quality Assurance During the Operational Phase

-- Seabrook Station Nuclear Production Design Control Program Manual, Rev 3, November 21, 1985

-- Seabrook Station Nuclear Production Operation Quality Assurance Program Manual, Rev 3, November 25, 1985

-- Seabrook Station Maintenance Program Manual, Rev 3, January 22, 1986

-- ANSI N18.7-1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants

-- Regulatory Guide 1.33, Quality Assurance Requirements, Appendix A, Rev. 2, 1978

-- Regulatory Guide 1.64, Quality Assurance Requirements for the Design of Nuclear Power Plants, Rev. 2, 1976