DEC 13 1985

Docket Nos. 50-443
50-444

Public Service of New Hampshire
ATTN: Mr. Robert J. Harrison
President and Chief Executive Officer
P. O. Box 330
Manchester, New Hampshire 03105

Gentlemen:

Subject: Inspection No. 50-443/85-15

This refers to your letter dated November 14, 1985, in response to our letter dated October 3, 1985.

Thank you for informing us of the corrective actions taken to address the violations and weaknesses identified in our above cited letter. We found these actions generally acceptable.

We reviewed the clarifications and exceptions you have provided for Violation B and noticed that the corrective actions in this regard were limited to the lead QC inspector involved. This action is acceptable pending inspector review of the basis for your conclusion that the violation was an isolated instance.

Your cooperation with us is appreciated.

Sincerely,

Original Signed By:
Lee R. Bettenhausen

Stewart D. Ebneter, Director
Division of Reactor Safety

cc w/encl:
John DeVincentis, Director, Engineering and Licensing
William B. Derrickson, Senior Vice President
Warren Hall, Operational Services Supervisor
Donald E. Moody, Station Manager - Seabrook Station
Gerald F. McDonald, Construction QA Manager
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State of New Hampshire

IE 01

bcc w/encl:
Region I Docket Room (with concurrences)
Management Assistant, DRMA (w/o encl)
DRP Section Chief
Jane Grant, DRP

RI:DRS	RI:DRS	RI:DRP	RI:DRS
Eapen/fi	Bettenhausen	Gallo	Ebneter
12/10/85	12/12/85	12/12/85	12/12/85

PSNH

SEABROOK STATION
Engineering Office

Public Service of New Hampshire

New Hampshire Yankee Division

November 14, 1985

SBN- 892
T.F. B4.2.7

United States Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

Attention: Mr. Stewart D. Ebneter, Director
Division of Reactor Safety

References: (a) Construction Permits CPPR-135 and CPPR-136, Docket Nos. 50-443 and 50-444
(b) USNRC Letter, dated October 3, 1985, "Inspection Report No. 50-443/85-15," S. D. Ebneter to R. J. Harrison

Subject: Response to Inspection Report No. 50-443/85-15

Dear Sir:

Our response to the violations and program weaknesses reported in the subject inspection is provided in Attachments A and B included herewith.

Very truly yours,

John DeVincentis, Director
Engineering and Licensing

Attachments

cc: Atomic Safety and Licensing Board Service List

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SBN-892
ATTACHMENT A

Notice of Violations

NOTICE OF VIOLATION "A"

10CFR50, Appendix B, Criterion III states in part, "Measures shall be established to assure that . . . the design basis, . . . for those structures, systems and components to which this Appendix applies are correctly translated into specifications, drawings, procedures and instructions."

Contrary to the above, as of June 6, 1985, the seismic installation criteria for the instrument tubes crossing a seismic boundary were not translated into the licensee's instrument tubing installation specification. As a result, instrument tubing runs FW-I-3, IA-2960 and IA-2963 were installed without adequate seismic anchor displacement considerations.

This is a Severity Level IV Violation (Supplement II).

RESPONSE

The violation as stated is correct. The violation occurred due to information, specific to Seismic Anchor Displacement (SAD) considerations, not being properly reflected in design and installation documents when the scope of work responsibility was transferred from the original I&C contractor to UE&C.

CORRECTIVE ACTION

1. A walkdown of all seismic buildings was conducted immediately after the finding. A number of building-to-building installations were noted. These were analyzed for SAD.

2. Installations identified during the walkdown were analyzed. Calculation Set 9763-B-18-18, Case 147 verified the adequacy of the installation. No tubing or tray rework was required. However, approximately 10 tube clamps were relocated to provide flexibility.

CORRECTIVE ACTION TO PRECLUDE RECURRENCE

1. Specification 46-1 was revised by ECA 05/107273A (issued July 11, 1985) to require consideration of seismic anchor displacement in design. The same ECA also revised Design Specification 501-3 to include the seismic building displacements to be used in analysis.

2. FIP-18 was revised in IPC 5, effective July 9, 1985. FIP-34 was revised by IPC 11, effective June 28, 1985. Both were revised to incorporate the ECA provisions.

Notice of Violations
(Continued)

3. A training seminar for appropriate engineering personnel regarding the need for SAD consideration in the execution of their work was held immediately upon notification of the deficiency. All personnel were subsequently required to read the IPCs to FIP-18 and FIP-34. The reading training records were forwarded to the Site Training Coordinator.

4. I&C prepared Internal Memo No. 42, dated June 11, 1985, for insertion into the Desktop Procedures. This memo established a new SAD standard sheet as part of all subsequent safety-related work packages.

The above correction action has been completed.

NOTICE OF VIOLATION "B"

10CFR50, Appendix B, Criterion V states in part, "Activities affecting quality shall be prescribed by documented . . . procedures . . . of a type appropriate to the circumstances and shall be accomplished in accordance with these . . . procedures."

Paragraph 5.1.6.2 of Seabrook Administration Procedure No. ASP-3, "Nonconformance", Revision 2, dated May 15, 1985, requires the contractor to submit the original NCR form to engineering for processing.

Contrary to the above, as of June 11, 1985, two NCRs (Nos. 93/667 and 93/666), which documented installation nonconformances of two seismic Category I installations were not submitted to engineering for processing. This happened because these NCRs were incorrectly voided by the lead QC inspector due to his misinterpretation of seismic requirements. As a result, the nonconforming conditions for Instruments SI-FI-918 and SI-FI-992 were left uncorrected.

This is a Severity Level IV Violation (Supplement II).

RESPONSE

It is correct the NCRs 93/667 and 93/666, which documented installation nonconformances of two seismic Category I installations, were voided due to misinterpretation of the seismic requirements.

However, we take exception to the NRC inspector's statement that Paragraph 5.1.6.2 of Seabrook Administration Procedure No. ASP-3, Revision was violated as the NCR's were void and not submitted to engineering for processing. We submit that Paragraph 5.1.6.2 does not apply. Paragraph 5.10, voiding NCRs/DRs does apply. The requirements of this paragraph were followed.

The voiding of the two NCRs by the Lead QC Engineer because of misinterpretation of ECA 05/2165A must be considered an error of judgement by the Lead QC Engineer and is, therefore, an isolated case not a procedural violation.

Notice of Violations
(Continued)

CORRECTIVE ACTION

I&C QC has initiated new NCRs (93/1969 and 93/1970) to control the nonconformances previously reported on NCRs 93/666 and 93/667.

CORRECTIVE ACTION TO PRECLUDE RECURRENCE

The UE&C QC Manager has discussed with the Lead QC Inspector the specific case and has reviewed the seismic requirements with him to avoid misinterpretation in the future.

The above corrective action has been completed.

NOTICE OF VIOLATION "C"

10CFR50, Appendix B, Criterion I and Section 17.1.1.1 of the Seabrook Station FSAR require the establishment and clear delineation of the duties, for both performing and quality assurance functions including those delegated to contractors for safety-related activities.

UE&C Procedure QA-1 (Revision 15) delineates the responsibilities of the Architect/Engineer (A/E) to assure the control of quality-related activities from engineering and design standpoints, as well as the responsibilities of the Construction Manager to manage and coordinate construction and contractor efforts within the delegated scope of quality-related work.

Within the scope of quality-related work are the design activities for safety-related pipe supports.

UE&C Specification 248-51 (Revision 17) states that, with respect to pipe support installation, "All hangers (piping supports) . . . shall be located with respect to the as-built location of the installed piping . . . taking into consideration the variation necessary to accommodate thermal growth" and also specified the general installation requirements for hangers, as further defined by the design drawings.

Engineering Change Authorization (ECA) 05/102323A, which authorized installation of an Instrumentation and Control (I&C) Support to pipe hanger M/S 251-SG-13 by UE&C, required addition of stiffener plates to M/S 251-SG-13 by Pullman Higgins Company.

Contrary to the above, as of June 3, 1985, the control of delegated quality-related activities from engineering and design standpoints, as well as the responsibilities of the Construction Manager to manager and coordinate construction efforts for the pipe support design and installation activities were inadequate as evidenced by:

1. The Pipe Support No. 157-SH-2B (2-way restraint) on the RHR Piping System No. RH-157-601-8" was located without taking into consideration the variation necessary to accommodate thermal growth. As a result, this support was designed and installed with zero clearance between the piping and top member of the support.

Notice of Violations
(Continued)

2. The Pipe Support No. 157-SG-17 (2-way restraint) on the RHR Piping System No. RH-157-601-8" was located without taking into consideration the variation necessary to accommodate thermal growth. As a result, this support was installed with zero clearance between the piping and the top member of the support, when a 1/16" clearance was required in the design drawing.

3. The I&C Support authorized by ECA 05/102323A was installed by UE&C, accepted and turned over to testing without either adding the required stiffener plate by Pullman Higgins to the pipe hanger M/S 251-SG-13 or assuring that the required stiffener plates will be added by Pullman Higgins to the pipe hanger at some future date.

This is a Severity Level IV Violation (Supplement II).

RESPONSE

Collectively, the corrective action to the specific examples will address the generic violation.

CORRECTIVE ACTION FOR EXAMPLE 1

Pipe Support Design Guidelines were issued in February 1980, specifying minimum clearances for support designs. Therefore, Example 1 is only applicable to support designs issued prior to February 1980.

The support designs issued prior to February 1980, have been reviewed and where applicable, redesigned to specify a 1/16" gap. It should be noted that less than 60 supports had been issued specifying zero clearance.

Measurements of "As-Built" gaps for safety-related pipe supports and evaluation of their effects on the piping analysis and support designs is also a part of our Piping and Pipe Support Closeout Task Team (PAPSCOTT) program. In addition, all safety-related hot (i.e., 200^{o}F or above) piping will be monitored for thermal movements during hot functional testing.

The above corrective action has been completed.

CORRECTIVE ACTION FOR EXAMPLE 2

Discussions have taken place to identify any pipe clearance considerations. It was determined that clarification is required to prevent any misinterpretation of clearance criteria.

Pipe supports will be inspected for similar clearance problems during the aforementioned PAPSCOTT walkdown.

Notice of Violations
(Continued)

CORRECTIVE ACTION TO PRECLUDE RECURRENCE

1. The design agency and installation contractor collectively initiated an Interim Procedure Revision (IPR) Revision 15-3 for Procedure JS-IX-6 to clarify design criterion and installation requirements for clearances in the installation and inspection of pipe hangers.

2. All applicable Pullman Higgins personnel were trained in the provisions of IPR Revision 15-3.

The above corrective action has been completed.

CORRECTIVE ACTION FOR EXAMPLE 3

Specifically, a modification sheet for ECA 05/102323A has been issued to include the affected pipe support documents. ECA 25/102267A (referenced as example in Inspection Report) did not require any revision because all appropriate affected documents were included in this ECA.

CORRECTIVE ACTION TO PRECLUDE RECURRENCE

Procedure FGCP-27, Revision 2, UE&C/Contractor Interface on Release of Equipment and Tanks, was issued on August 12, 1985, clearly defining the requirements for stiffener plate installations and associated interface mechanisms.

SBN-892
ATTACHMENT B

Item of Weakness

1. NRC Item of Weakness: Instrument Tubing Program

Further review of the maximum slope requirement for instrument tubing concluded that this requirement was not necessary. Accordingly, and as also indicated in the inspection report under Paragraph 8, the following actions were taken:

a. ECA 05/106137A was issued (June 10, 1985) deleting the maximum slope requirement from Specification 46-1.

b. I&C QC Inspectors and Craftsmen were trained in this revised specification requirement.

2. NRC Item of Weakness: Design Change Program

The following actions were taken in response to this identified program weakness:

a. A training enhancement program will be implemented for all the engineering groups preparing/dispositioning design change documents which includes ECAs and NCRs. The details/goals of the training enhancement program have been developed in conjunction with the Site Construction Training Department and addresses all items described in the finding. These training sessions are scheduled to be completed by November 15, 1985.

In addition, formal classroom training sessions on AP-15 and ASP-3 have occurred subsequent to the finding. These training sessions included special emphasis to highlight and correct the weakness identified.

b. AP-15 and ASP-3 have been reviewed to establish consistency between the two documents. As a result of this review, AP-15, Revision 23 was issued for use on August 16, 1985, and ASP-3, Revision 3 was issued on August 31, 1985. Training on these revised procedures was provided. Any subsequent change in one procedure is considered for applicability in the other procedure.

c. All design change documents identified in the finding have been reviewed and revised as required.

Item of Weakness
(Continued)

3. NRC Item of Weakness: Welder Qualification Records

The following actions were taken in response to this identified weakness:

a. Weld Procedure Specification S-FWP-300 has been revised to include the following items:

(1) The maximum metal thickness to be welded is 3/8" maximum.

(2) The amperage range shall be lowered to short circuiting mode.

b. Welders will be instructed that only SFA 5.18, ER70S-2 bare solid welding electrodes shall be utilized with the gas metal arc welding process and WPS S-FWP-300.

c. The welder qualification records have been reviewed and corrected. Audit SA962CS465 will again verify welder qualification records.