

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-546/83-13(DE); 50-547/83-13(DE)

Docket Nos. 50-546; 50-547

Licenses No. CPPR-170; CPPR-171

Licensee: Public Service Indiana
Post Office Box 190
New Washington, IN 47162

Facility Name: Marble Hill Nuclear Generating Station

Inspection At: Marble Hill Site, Jefferson County, IN

Inspection Conducted: August 9-10, 1983

Inspector: *I. T. Yin*
I. T. Yin

8/25/83
Date

Approved By: *D. H. Danielson*
D. H. Danielson, Chief
Materials and Processes Section

8/25/83
Date

Inspection Summary

Inspection on August 9-10, 1983 (Report No. 50-546/83-13; 50-547/83-13(DE)).

Areas Inspected: Review of licensee piping suspension system installation and inspection procedures, observation of component restraint conditions, and general discussions on NRC regulation requirements. This inspection involved a total of 16 inspector-hours by one NRC inspector.

Results: Of the areas inspected, no items of noncompliance were identified.

DETAILS

1. Persons Contacted

Public Service Indiana (PSI)

*C. Beckham, Executive Director, Nuclear QA
*B. R. Morrison, Quality Engineering (QE) Manager
*W. Monroe, Chief, Mechanical Engineer
*W. A. Muensterman, Contract Manager, Mechanical
*J. H. Mansker, Assistant Contract Manager, Mechanical
*S. E. Quinn, Project Engineering Manager
*S. J. Brewer, Nuclear Safety and Licensing Manager
*G. A. Sinders, Project Licensing Engineer
*F. P. Carchedi, Mechanical QE Manager
*E. Schlinger, Assistant Project Director
R. Greer, Assistant Construction Manager
J. Neyhard, Construction (Mechanical)
J. W. Davenport, Civil QE Manager
T. Geyman, Civil Inspection and Testing Supervisor
A. F. Varney, Resident Engineer, Civil
P. K. Gupta, Civil Engineer

Cherne Contracting Corporation (CCC)

D. Francis, Pipe Support Manager
D. King, Project QA Manager
L. Nichols, Assistant Hanger Engineer

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*J. F. Schapker, Senior Resident Inspector

*Denotes those attending the management exit meeting on August 10, 1983.

2. Functional or Program Areas Inspected

a. Review of Procedures

The inspector reviewed the following Cherne Contracting Corporation (CCC), and PSI piping suspension system installation and QC inspection procedures. CCC is the mechanical contractor at the site. The inspector comments were as follows:

(1) CCC Installation Procedures

- (a) Procedure No. 12.7, "Hanger Installation", Revision 12, dated June 1, 1983. The procedure referenced the support manufacturer's installation recommendations, but provided no specific technical information, such as sequential tightening of pipe clamps with spacer, and torquing of mechanical snubber assembly fasteners. This is an unresolved item (546/83-13-01; 547/83-13-01).

- (b) Procedure No. 12.10, "Hanger Process Control", Revision 11, dated May 11, 1983. The support installation is in accordance with the Hanger Detail Drawings (HDDs) drawn by CCC staff based on S&L design drawings. The QC inspection is conducted by using these HDDs. Also, the installation as-builts are marked on these HDDs. However, the program verification to compare these HDDs to the design, other than periodic audits, will not be conducted until 100% system turnover per PSI procedure PMP 3-6 (see paragraph 1.c.(1)). Procedure PMP 3-6 Attachment 1, "As-Constructed Package Completeness Checklist", Item 2, states that, "Verify HDD revision level referenced on the design subcontractor detailed support drawings, or the mechanical contractors overlay drawings agrees with current revision indicated in the Design Drawing Information System (DDIS). If different, verify that all applicable design changes are referenced and incorporated into the hanger as-constructed." Further review of the system adequacy is planned. This is an unresolved item. (546/83-13-02; 547/83-13-02).
- (c) Procedure No. 15.24, "Anchor Bolt Procedure", Revision 8, dated March 23, 1983. Relative to the various manufacturers products, i.e., Hilti, ITT-Phillips, Ramset, Rawplug, and USM, the inspector questioned: (1) whether or not they had all been qualified per IEB 79-02 requirements, and (2) whether or not the unique sets of installation values provided would cover the various manufacturer's capacity or rating requirements. This is an unresolved item (546/83-13-03; 547/83-13-03).
- (d) Procedure No. 17.1, "The Reporting of Deficiencies to the NRC", Revision 6, dated January 28, 1983. CCC QC inspectors are being indoctrinated on procedural requirements. The procedure itself meets the NRC regulation reporting requirements. However, there appeared to be a lack of step-by-step instructions on how to resolve an individuals concerns at the various levels of corporate management. This is an unresolved item (546/83-13-04; 547/83-13-04).
- (e) Procedure No. 17.2, "Processing of Nonconformances", Revision 14, dated May 31, 1983. No comment.
- (2) CCC QC Program Procedures
- (a) Procedure No. 9.0, "Hanger Installation", Revision 1, dated March 8, 1983, including Reference Attachments 1 to 3. No comment.
- (b) Procedure No. 10.0, "Concrete Expansion Anchors", Revision 0, dated November 22, 1982. No comment.

(3) Marble Hill Nuclear Station Project Management Manual Procedures

- (a) Procedure No. PMP 3-6, "Piping and Pipe Support As-Constructed Verification", Revision 2, dated August 3, 1983.

Comments are referenced in paragraph 2.a.(1).b.

- (b) Procedure No. QCP-11, "QC Procedure for Concrete Expansion Anchor Testing", Revision 8, dated March 9, 1983. No comment.

b. Observation of Work

The inspector observed piping support and restraint installations in areas of the Auxiliary Building. Among the few components installed, the inspector selected the following two rigid restraints for evaluation:

- (1) M-1SX03008X, installed on July 30, 1983, per FCR M-9428, dated July 8, 1983. The inspector discussed with the licensee the need for timely QC inspection and the need for concrete hole location tolerances in procedures to minimize the need for issuing FCR's.
- (2) M-1CC01004X, installed on January 11, 1983 per Revision B requirements. QC inspections were conducted for weldments only. However, informal interference checks were conducted per the "Auxiliary Building Feasibilities" program on June 24, 1982 through July 12, 1982 prior to the installation.

CCC Procedure 12.10, "Hanger Process Control", specifies the requirements for timely QC verification that the support location, configuration and orientation meet design requirements. This includes welding inspections. These requirements were first established in Revision 8, dated February 17, 1983. The present procedure has been updated to Revision 11, dated May 11, 1983. As a result of the inspector's review, the CCC management provided the following status of installed safety related pipe supports.

Prior to CCC Procedure 12.10, Revision 8, dated February 17, 1983

. ASME supports installed	2,683
. 100% QC inspected to 12.10, Revision 11	96
. Total number of supports that were lacking QC inspections	2,587

From February 17, 1983 to Present

. ASME supports installed in accordance with 12.10, Revision 8 to Revision 11 requirements	559
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During the course of discussions relative to the subject matters, the inspector was presented a CCC letter, dated August 10, 1983, from CCC Project Manager to the licensee Project Contract Manager, "Verification Status of Hangers Per Procedure 12.10", where it stated the CCC intention to perform QC inspection on the 2,587 supports starting now and gradually building the staffing/activity intensity for completing approximately 50 hangers per week by October 1, 1983. It was also stated by the licensee, among the 2,587 units, there were approximately 849 units that will probably be revised by design changes and other hardware related considerations. The PSI management has committed to have QC inspection completed for all 2,587 units prior to October, 1984. The work progress and program implementation will be monitored by the inspector during future site inspections. This is an unresolved item (546/83-13-05; 547/83-13-05).

3. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance or deviations. Five unresolved items disclosed during this inspection are discussed in paragraphs 2.a.(1).(a), 2.a.(1).(b), 2.a.(1).(c), 2.a.(1).(d), and 2.b.(2).

4. Exit Interview

The inspector met with licensee representatives at the conclusion of the inspection on August 10, 1983. The inspector summarized the scope and findings of the inspection. The licensee acknowledged the findings reported herein.