

Washington Public Power Supply System

P.O. Box 968 3000 George Washington Way Richland, Washington 99352 (509) 372-5000
Docket No. 50-397

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REGION V/12

Mr. D. M. Sternberg
Chief, Reactor Projects
Branch No. 1
U.S. Nuclear Regulatory Commission
1450 Maria Lane, Suite 210
Walnut Creek, California 94596

Subject: NUCLEAR PROJECT NO. 2
NRC INSPECTION

Reference: Letter T.W. Bishop to R.G. Matlock, dated August 2, 1982,
same subject.

Washington Public Power Supply System hereby replies to the Notice of Violation transmitted as Appendix A to your referenced letter. Our reply pursuant to the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2 Title 10, Code of Federal Regulations, consists of this letter and Appendix A, attached. The scope of the reply in Appendix A addresses the issues identified in both your transmittal letter and within the Notice of Violation itself.

If you have any questions or desire further information, please contact me.


R.G. Matlock
Program Director, WNP-2

Attachment: Appendix A

cc: W.S. Chin, BPA
R.A. Feil, NRC Resident Inspector
A. Forrest, Burns and Roe - HAPO
N.D. Lewis, NRC
T.A. Mangelsdorf, Bechtel 982
J. Plunkett, NUS Corp.
R.E. Snaith, Burns and Roe - NY
Document Control Desk, NRC
Site Files 917B

APPENDIX A

As a result of the inspection conducted during June 1982, and in accordance with the NRC Enforcement Policy, 10CFR Part 2, Appendix C, 47 FR 9887 (March 9, 1982), the following violations were identified:

- A. 10CFR50 Appendix B, Criterion IX as addressed in Section D.2.5.9 of the Supply System Quality Assurance Program in Section 17 of the PSAR states in part that, "Measures shall be established to assure that special processes...are controlled and accomplished by qualified personnel using qualified procedures in accordance with applicable codes, standards, specifications, criteria, and other special requirements."

ASME Boiler and Pressure Vessel Code, Section III, paragraph NC-4223.1 states in part, "...Bending processes shall be selected and qualified to maintain a wall thickness for bent piping sufficient to satisfy the requirements of the design calculations at the resultant thickness...."

Bechtel Power Corporation Procedure SWP/P-P-4 Revision 2, to which the instrument contractor is bound states in part:

"3.2.1 All pipe bending shall be performed by a bender approved by the PFE.

3.3.1 For austenitic stainless steel, each nominal pipe size, weight, heat and radius to be cold bent to a radius more than twenty (20) pipe diameters shall be qualified by a procedure qualification.

3.3.3(h) For stainless steel pipe bent to a radius of more than twenty (20) pipe diameters only, determine the hardness of each section on both the inside and outside radius."

Contrary to the above, between June 1, 1982, and June 6, 1982, six (6) bends were made in stainless steel pipe in each of the four (4) loops of the hydraulic supply to RRC-V-60 B using an unapproved and unqualified pipe bender in accordance with an unapproved and unqualified pipe bending procedure.

This is a Severity Level IV violation.

SUPPLY SYSTEM RESPONSE

1. **Corrective Steps Taken and Results Achieved** - This deficiency was documented by Bechtel QA on Quality Action Request No. 82-13 issued June 15, 1982. Corrective actions taken in response to this QAR included a review of all existing Bechtel procedures to ensure that approvals by the Architect/Engineer have been obtained where required (i.e., for special process procedures). No other errors in approval of special process procedures were identified. Also, a Bechtel internal memorandum was issued on June 29, 1982, from the Field Construction Manager to all department supervisors which stressed adherence to all aspects of the Bechtel quality program. This memo reiterates that the Superintendents and Field Engineers are directly responsible and accountable for the performance of Bechtel's quality program.

SUPPLY SYSTEM RESPONSE (Continued)

A nonconformance report was issued to document that pipe bending had been performed prior to qualification of bends and without an A/E approved qualified procedure. This NCR has been dispositioned "accept-as-is" by the A/E on the basis that there was no hardware deficiency and subsequent approval of the subject pipe-bending procedure, as well as qualification of the pipe bends, prior to completion of installation.

2. **Corrective Steps Which Will Be Taken To Avoid Further Items Of Non-compliance** - As an additional corrective action taken in response to QAR 82-13, a revision to Bechtel's procedure GWP/P-1 entitled "Construction Procedure Preparation and Publication" was issued which clarifies the requirement that Bechtel Field Engineering determine the approval authority required for procedures prior to implementation of the procedure. In addition, a case history and a set of lessons learned was developed regarding the events associated with the nonconforming pipe-bending work. This information was distributed to all personnel involved in this activity and forms the basis for training sessions which were conducted for Field Engineering and Construction Supervision personnel. These training sessions were completed on August 12, 1982.
 3. **Date of Full Compliance** - Full compliance was achieved on August 12, 1982, when the "lessons learned" training sessions were completed as referenced in paragraph 2, above.
- B. 10CFR50 Appendix B, Criterion XV as addressed in Section D.2.5.15 of the Supply System Quality Assurance Program in Section D.0. of the PSAR, states "Measures shall be established to control materials, parts, or components which do not conform to requirements in order to prevent their inadvertent use or installation. These measures shall include, as appropriate, procedures for identification, documentation, segregation, disposition, and notification to affected organizations. Nonconforming items shall be reviewed and accepted, rejected, repaired or reworked in accordance with documented procedures."

Further, the Bechtel Quality Assurance Manual - ASME Section III states in Sections 15.1.1.1 and 15.1.1.2: "ASME Section III items not conforming to their requirements are identified and controlled such that inadvertent use or installation, is prevented. The PCQCE is responsible for administering the nonconformance control system.

Nonconforming items discovered during receipt inspection or construction activities, are controlled and documented by the use of a Nonconformance Report (Exhibit 15A). The nonconformance report provides for identification and documentation of the nonconformance and control of the item, identifies the authority for approval of proposed resolution and provides for documentation of reinspection results."

B. (Continued)

Contrary to the above, safety-related stainless steel piping was being installed in the hydraulic system for the reactor recirculation system on June 7-10, 1982. The piping had been formed by use of an unapproved and unqualified procedure and pipe bender. A Nonconformance Report was not prepared until June 11, 1982, even though the conditions had been identified and reported to the Construction Manager (Bechtel) by the Authorized Nuclear Inspector on June 3, 1982. In addition, a Bechtel Quality Assurance Engineer identified the condition on June 6, 1982.

This is a Severity Level IV.

SUPPLY SYSTEM RESPONSE

1. **Corrective Steps Taken and Results Achieved** - Although a Bechtel Nonconformance Report (NCR) was not immediately issued and validated to document the subject nonconforming pipe bending work, permanent installation of the subject potentially nonconforming production bends was halted on June 6, 1982, when the problem was identified by Bechtel Quality Control personnel. The installation was halted before any final fit-up, tack welding or welding was performed.

On June 3, 1982, the Authorized Nuclear Inspector (ANI) notified Bechtel Quality Assurance of some specific concerns regarding the text of the JCI bending procedure. This notification did not address the issue of performing the actual pipe bending work to an unqualified procedure.

A meeting of Engineering, Quality Control, Construction Supervision, Quality Assurance, and the Authorized Nuclear Inspector was held on June 11, 1982, to determine if a violation had indeed occurred. This meeting resulted in issuing the Nonconformance Report and a Quality Action Request documenting the violation. This NCR was issued confirming direction that halted permanent installation of the piping material and validated on June 11, 1982. Subsequent evaluation of material qualification bend samples proved the process and production bends to be acceptable.

The corrective actions identified in "Corrective Steps Taken to Prevent Further Items of Noncompliance" (below) have resulted in an increased awareness among the Quality Control personnel regarding the timeliness of issuing and validating Nonconformance Reports.

2. **Corrective Steps Which Will Be Taken to Avoid Further Items of Noncompliance** - Bechtel Quality Control Administrative Instruction #15, Revision 1, was issued July 20, 1982. This instruction includes provisions for:
 - o Prenumbering and logging of NCR's at the time they are first identified to provide accountability prior to validation.
 - o Weekly generation of an NCR aging report which identifies the date each NCR is initiated and the date validated, including a specified five-day time limit for validation. This will provide visibility to management of the processing time so that corrective action may be taken as appropriate.

2. Corrective Steps Which Will Be Taken to Avoid Further Items of Noncompliance - (Continued)

- o NCR hold-tag application to control further work now occurs prior to formal validation, under the direction of the first level Quality Control Supervisor. The application of the hold tag precludes continuing work until the issue is resolved. Training of Quality Control in these instructions was completed on July 29, 1982.

3. Date of Full Compliance - Full compliance was achieved on July 29, 1982 when training of personnel to the requirements of Administrative Instruction #15, Revision 1, was completed.

- C. The following items address the issues identified in the letter of transmittal.

1. Measures Taken to Effect Prompt Corrective Action(s) Once Conditions Adverse to Quality Have Been Identified

The actions taken in in A.1, A.2, B.1 and B.2 above address this issue fully.

2. How Do You Plan to Assure That Your Contractors Implement Prompt Corrective Action

The WNP-2 Quality Assurance organization will perform a surveillance verifying the committed completion dates for the actions identified. This surveillance is scheduled for completion August 27, 1982.

STATE OF WASHINGTON)
)
COUNTY OF BENTON)

ROBERT G. MATLOCK, Being first duly sworn, deposes and says: That he is the WNP-2 Program Director of the WASHINGTON PUBLIC POWER SUPPLY SYSTEM, the permit holder herein; that he is authorized to submit the foregoing on behalf of said permit holder; that he has read the foregoing and attachments listed therein and knows the contents thereof; and believes the same to be true to the best of his knowledge.

DATED: August 31, 1982

R. G. Matlock
R. G. MATLOCK

On this day personally appeared before me R. G. Matlock to me known to be the individual who executed the foregoing instrument and acknowledged that he signed the same as his free act and deed for the uses and purposes therein mentioned.

GIVEN under my hand and seal this 31st day of August, 1982.

Vickie L. Hammack
Notary Public in and for the State of
Washington
Residing at Kennawick