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August 14, 1980

Mr. Boyce H. Grier, Director  
U. S. Nuclear Regulatory Commission  
Office of Inspection and Enforcement  
Region 1  
631 Park Avenue  
King of Prussia, Pennsylvania 19406

Dear Mr. Grier:

NRC INSPECTION REPORT 50-354/80-07 AND 50-355/80-07  
NO. 1 AND 2 UNITS  
HOPE CREEK GENERATING STATION

We have reviewed the report of your inspection conducted on May 5-30, 1980. The report was transmitted with your letter of July 2, 1980 and received on July 15, 1980. The following corrective actions have been taken or contemplated relative to the three infractions determined:

A. Infraction applicable to Docket Number 50-354:

"10CFR50, Appendix B, Criterion V states in part that:  
'Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings...and shall be accomplished in accordance with these instructions, procedures, or drawings.'

"Section 16.4 of Chapter 16 of the PSAR states in part that:  
'Bechtel quality related activities are documented and controlled by written procedures and instructions.'

"Paragraph 3.2 of Section IV, field operation of the Bechtel Nuclear Quality Assurance Manual states in part that: 'Construction procedures shall provide for storage...to meet the applicable requirements of...supplier's requirements....'

"Paragraph 1.3 of GE NED document 22A2724, Revision 3, Equipment Storage Requirements, states in part that: 'The requirements herein and additional storage or maintenance requirements given in GE approved Vendor instruction manuals or storage instructions are considered minimum for satisfactory protection of equipment....'

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"Contrary to the above, as of May 20, 1980, the Residual Heat Removal and Core Spray pumps were not stored in accordance with the requirements stated in the vendor (Ingersoll-Rand) technical manual."

Reply to A:

1. Corrective steps which have been taken and the results achieved:
  - a. All pump heat tracing has been energized.
  - b. Pump shaft free ends have been blocked up.
  - c. Pump external machined surfaces have been coated with preservations.
  - d. Pumps have been covered with protective coating.
  - e. The pump open ends and shaft extensions have been sealed and wrapped with protective coating.
  - f. A Field Deviation Disposition Request (FDDR) is being processed by General Electric (GE) - Nuclear Energy Business Group (NEBG) to allow the pumps to be stored with the pump element separated from the discharge head.

2. Corrective steps which will be taken to avoid further items of noncompliance:

Responsible personnel have been counseled on the necessity of storing equipment in accordance with existing vendor instructions.

3. Date when full compliance will be achieved:

All items have been completed excluding the processing of the FDDR by GE - NEBG. We forecast the FDDR will be reviewed and processed by August 29, 1980.

- B. Infraction applicable to Docket Numbers 50-354 and 50-355:

"10CFR50, Appendix B, Criterion IX states in part that: 'Measures shall be established to assure that special processes, including welding...are...accomplished...using qualified procedures in accordance with applicable codes....'

"Section 16.4.9 of Chapter 16 of the PSAR states in part that: 'Special processes performed by Bechtel Construction including welding...are performed in accordance with applicable codes...by qualified procedures....'

"Contrary to the above, as of May 30, 1980, beam seat support plate to imbedded plate welds (per AWS D1.1) with an included angle of less than 60 degrees were made without a qualified procedure."

Reply to B:

1. Corrective steps which have been taken and results achieved:

Specification 10855-C-130(Q) will be revised by issuing Amendment No. 1 to Welding Procedure P1-A-LH (structural), Revision 3. This amendment contains Welding Procedure Qualification Record (PQR No. 687) for welding partial penetration groove welds with level angles greater than those prequalified to AWS D1.1. The additional variables indicated for the revised welding procedure have been met for the welds made in accordance with the joint detail shown on Drawing No. 10855-C-0849-O, Revision 13.

2. Corrective steps which will be taken to avoid further items of noncompliance:

None required. Additional joints which may have similar configuration are now qualified under Welding Procedure Qualification Record PQR No. 687.

3. Date when full compliance will be achieved:

Amendment No. 1 to Welding Procedure P1-A-LH (structural), Revision 1 will be issued by August 18, 1980.

- C. Infraction applicable to Docket Number 50-354:

"10CFR50, Appendix B, Criterion X states in part that: 'A program for inspection of activities affecting quality shall be... executed by or for the organization performing the activity to verify conformance with the documented instructions, procedures, and drawings for accomplishing the activity....'

"Section 16.4.10 of Chapter 16 of the PSAR states in part that: 'Bechtel suppliers and subcontractors are required to perform in-process and final inspections in accordance with procedures, instructions, or drawings....Suppliers' and subcontractors' programs are subject to surveillance inspection by Bechtel shop inspectors....'

"Bechtel Specification C-139(Q) specifies in paragraph 7.7.1 the visual inspection criteria for finished welds and in paragraph 8.8 discusses ultrasonic testing requirements for certain welds.

"Contrary to the above, as of May 30, 1980, the lower bioshield fabricated by PX Engineering had been accepted by PX Engineering and Bechtel QC and was installed in place with missing ultrasonic test records and various weld defects including undercut, lack of penetration, insufficient reinforcement, and undersized fillet welds."

Reply to C:

1. Corrective steps which have been taken and results achieved:

Inspection of lower bioshield welding has been performed and welding deficiencies have been documented on nonconformance reports, NCR No. 755 and 770. Review of all quality verification documentation has been performed for the lower bioshield and deficiencies have been documented on nonconformance report, NCR No. 779. These nonconformance reports are under evaluation.

2. Corrective steps which will be taken to avoid further items of noncompliance:

- a. Bechtel Supplier Quality Representatives Area Supervisor has been directed to increase surveillance at PX Engineering. As a minimum, in addition to witness and hold points required by the quality plan, the following shall be witnessed or performed:

Fit-up of inner shell plates to vertical stiffeners.

NDE of root pass of inner shell to vertical stiffeners.

100% final weld inspection.

- b. The increased surveillance with emphasis on welding and documentation shall continue until PX Engineering has completed all fabrication.
- c. Bechtel Project has changed the inspection level to add resident supplier quality representatives until the upper biological shield has been released for shipment.

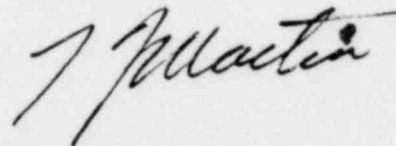
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3. Date when full compliance will be achieved:

- a. Resolution of the welding and documentation deficiencies will be completed by resolution of Nonconformance Reports No. 755, 770 and 779. Resolution is targeted for September 8, 1980.
- b. Actions to avoid further items of noncompliance will continue until shipment of upper bioshield. Shipment is scheduled for October 1, 1980.

If you require additional information, we will be pleased to discuss it with you.

Very truly yours,



CC Office of Inspection and Enforcement  
Division of Reactor Construction and Inspection  
Washington, DC

H. E. Morris  
Bechtel Power Corporation  
San Francisco, CA