

Washington Public Power Supply System

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August 7, 1981

G03-81-2339

Nuclear Regulatory Commission, Region V
Suite 202, Walnut Creek Plaza
1990 North California Boulevard
Walnut Creek, California 94596

Attention: Mr. J. L. Crews, Acting Director
Division of Resident, Reactor Projects,
and Engineering Inspection

Dear Mr. Crews:

Subject: PROJECT NOS. 3 AND 5
NRC INSPECTION OF WNP-3 AND WNP-5
DOCKET NUMBERS 50-508 AND 50-509

References: 1) Letter, G13-81-222, J. L. Crews to
R. S. Leddick, same subject,
dated July 2, 1981.
2) Letter, D. F. Knoth to all AEC Licensees,
"Criterion for Determining Enforcement
Action and Categories of Noncompliance,"
dated December 13, 1974.

This letter is in response to your letter of July 2, 1981, which discussed the results of the inspection conducted May 4 to June 2, 1981, of activities authorized by Nuclear Regulatory Commission Construction Permit Numbers CPPR-154 and CPPR-155. The letter identified two Items of Noncompliance categorized in accordance with Reference 2 and required the Supply System to provide a response to these items.

The specific Nuclear Regulatory Commission findings, as stated in your letter, and the Supply System responses are provided in Attachment I to this letter.

Should you have any questions or desire further information, please feel free to contact me directly.

Very truly yours,



R. S. Leddick
Program Director, WNP-3/5

Attachments

cc: J. Adams, PP&L
D. Smithpeter - BPA
Ebasco - New York
WNP-3/5 Files - Richland



ATTACHMENT I

Nuclear Regulatory Commission - Finding A

10CFR50, Appendix B, Criterion IX, states, in part, that: "...Special processes, including welding...are controlled and accomplished...using qualified procedures...in accordance with applicable codes, standards, specifications, criteria, and other special requirements."

Paragraph 17.1.9 of the Quality Assurance Program documented in approved PSAR Deviation No. 26-WP states, in part, that: "The WPPSS QA Program requires...development and implementation of measures for the control of special processes...such processes as...welding..." and that..."Equipment utilized in the performance...of special processes that require qualification shall be qualified to its intended usage prior to being used..."

The ASME Boiler and Pressure Vessel Code Sections III and IX provide requirements for qualifying welding procedures for use on ASME Section III, Class 2 welded connections. For materials requiring impact testing, (notch toughness) additional requirements are specified by Section III, Subsection NC-4332 and Section IX paragraph QW-251.2 and includes the following statement: "Essential Variables are those in which a change...is considered to effect the mechanical properties of the weldment, and shall require requalification of the WPS. Supplementary Essential Variables are required for metals for which other section of the Code specify notch toughness tests." The notch toughness requirement for the containment penetration assemblies are specified in WPPSS Specification 3240-54, paragraph 13.07, in accordance with Section III, Subsection NC-2311 of the Code. The supplemental requirements for welding materials requiring impact testing include: (QW-403.4) "...when joints are to be made between base metals from two different groups, a procedure qualification must be made for the applicable combination of base metals;" (QW-406.3) requalification is required for "...an increase in the Specified Maximum interpass temperature..." (QW-409.1) requalification is required for "...a change in the ranges of amperage, voltage, or travel speed..."

The Peter Kiewit Sons Co. (contract 3240-251) welding procedure for joining Safety Injection System 40" penetration assemblies No. 23 and 24 (welds number 5) is procedure PKS-WPS-8s. The joints involve the welding of a P-1, Group 1 material to a P-1, Group 2 notch toughness tested material. As shown on Ebasco drawing No. 3240-G-1300, Reactor Building Piping Penetrations, this is an ASME Section III, Class 2 weld.

Contrary to the above requirements on May 29, 1981, welding procedure PKS-WPS-8s, had been specified for use on welding penetration assemblies Nos. 23 and 24 and had been used on Unit 3 assembly No. 24, weld No. 5, without proper qualification. The procedure was not qualified for the two different base metal groups involved in the weld; no maximum interpass temperature was specified in the welding procedure; and

the procedure allowed welding amperages in excess of that qualified (i.e. PKS-WPS-8s allows welding of 1/8 inch E7018 filler material at amperages up to 200 amps, whereas the procedure was qualified, by PQRs No. 3 and 8, with amperages of 125 amps and 180 amps).

This is a Severity Level IV violation (Supplement II), applicable to Unit 3.

Nuclear Regulatory Commission - Finding B

10CFR50, Appendix B, Criterion III, states, in part, that: "Measures shall be established to assure that applicable regulatory requirements and the design basis...are correctly translated into...drawings..."

Paragraph 1.3 of the Quality Assurance Program documented in approved PSAR Deviation No. 26-WP, states, in part, that: "...prior to submittal" (of design document)" to either WPPSS or Ebasco for review and/or approval, the design contractor's, including Ebasco, are responsible for verifying that the design meets the requirements of the specification..."

The PSAR, Section 3.2, provides for safety-related ASME pipe supports to be designed in accordance with the ASME Boiler and Pressure Vessel Code, Section III. Section III, Appendix XVII, paragraph 2452.1 specifies the minimum allowable fillet weld sizes for various thicknesses of welded connections on pipe supports.

Contrary to the above requirements, on May 29, 1981 it was determined that contractor design drawings for ASME safety related pipe supports No. 3G-CH-135, (one weld), 3G-CH-163 (two welds), and 3G-CH-267 (one weld) specified welds smaller than the minimum size permitted by the ASME Code Section III, Appendix XVII, paragraph 2452-1.

This is a Severity V violation (Supplement II), applicable to Units 3 and 5.

Nuclear Regulatory Commission - Finding A

Corrective Steps Which Have Been Taken:

The Contractor immediately performed a supplemental qualification for the affected weld procedure specifications to qualify the base material (P-1, Group 2). Concurrent with the qualification, the weld procedure specifications were revised for consistency with the electrical characteristics and interpass temperature. The extent of this deficiency was evaluated and determined to be an isolated problem.

Steps Taken To Avoid Further Items of Noncompliance

The Contractor's scope of work does not include any material that requires impact testing. Changes to the contract will be evaluated for impact test requirements and resolved by the Contractor and the Engineer prior to their incorporation.

Date When Full Compliance Will Be Achieved

Date of full compliance is July 29, 1981.

Nuclear Regulatory Commission - Finding B

Corrective Steps Which Have Been Taken

Ebasco has requested and received from PKS (251) a listing of all ASME Class 1, 2 and 3 hangers outside the RAB pipe chase, that have been requested or withdrawn from the Owner's warehouse to date, August 4, 1981. A list of ASME hangers released to the Joint Venture (224) was compiled by Resident Engineering personnel. All such hangers were identified by individual hanger mark number. PKS hanger listing has been checked by ESSE for code compliance to the requirements of Appendix XVII, Paragraph 2452.1 of ASME Boiler and Pressure Vessel Code, Section III. The Joint Venture (224) hanger listing will be checked by ESSE and completed by August 10, 1981. A letter will be issued to 224 placing an Engineering hold on these hangers until identification of violation is complete. The hangers not in compliance with the Code will be segregated into two categories Installed and Not Installed. An NCR will be written for each condition. The hangers not installed to date will be placed on hold and conditionally released upon issuance of a design change document to correct the design documents. The listing supplied by Peter Kiewit Son's will be compared and verified using Ebasco Warehouse records and will be completed by August 18, 1981. Any discrepancies will be addressed and dispositioned appropriately.

The hangers installed will be inspected and physically checked for undersized welds as identified by ESSE through design drawings. All welds found to be undersized will be brought into compliance with the Code.

For all hangers requisitioned from the warehouse after August 4, 1981, ESSE will review the field weld sizes for Code compliance, and issue revised details as necessary. Installation of these hangers cannot proceed unless specifically released by ESSE.

Steps Taken To Avoid Further Items Of Noncompliance

- a. On May 19, 1981 the Ebasco NYO issued instructions within the Design Department to pay special attention to the design for compliance with Table XVII-2452.1-1.
- b. Effective August 4, 1981, Ebasco Site Engineering (ESSE) is checking drawings for all supports requisitioned from the Warehouse by the installing contractor. If weld size deficiencies are found, corrected details are issued to the contractor - prior to start of installation.
- c. A log will be established to assure that all drawings issued prior to August 4, 1981 have been checked for compliance with Table XVII-2452.1-1 and revised as necessary.

- d. Ebasco Site Engineering (ESSE) will recheck and review as necessary all design drawings issued prior to August 4, 1981.

Date When Full Compliance Will Be Achieved

- a. Measures described above will correct the deficiency for field welds made after August 4, 1981.
- b. Drawing review and revision as needed for previously installed hangers will be completed as soon as possible but not later than December 30, 1981.
- c. All undersized welds will be brought into compliance with Table XVII-2452.1-1 as soon as practical but in no case later than December 30, 1981.

D. E. DOBSON, Being first duly sworn, deposes and says: That he is the Project Manager, WNP-3/5, for the WASHINGTON PUBLIC POWER SUPPLY SYSTEM, the applicant herein; that he is authorized to submit the foregoing on behalf of said applicant; that he has read the foregoing and knows the contents thereof; and believes the same to be true to the best of his knowledge.

DATED 8.7.81, 1981

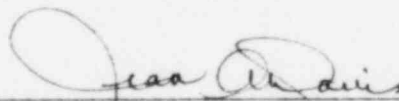


D. E. DOBSON

STATE OF WASHINGTON)
) ss
COUNTY OF GRAYS HARBOR)

On this day personally appeared before me D. E. DOBSON 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 7th day of August, 1981.



Notary Public in and for the State
of Washington
Residing at Elma