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OCT 24 1980

Docket No. 50-397/50-8

Washington Public Power Supply System
P. O. Box 968
Richland, Washington 99352

Attention: Mr. R. L. Ferguson
Managing Director

Gentlemen:

Thank you for your letter dated September 19, 1980 informing us of the steps you have taken to correct the items which we brought to your attention in our letter dated August 15, 1980. Your corrective actions will be verified during a future inspection.

Your cooperation with us is appreciated.

Sincerely,

R. C. Haynes

for G. S. Spencer, Chief
Reactor Construction and
Engineering Support Branch

8010310 049

Washington Public Power Supply System
A JOINT OPERATING AGENCY

P. O. Box 968 3000 Geo. Washington Way Richland, Washington 99352 (509) 372-5000

September 19, 1980
G02-80-209

Mr. R.H. Engelken, Director
Office of Inspection and Enforcement
Nuclear Regulatory Commission
Region V
Suite 202, Walnut Creek Plaza
1990 N. California Boulevard
Walnut Creek, CA 94596

Subject: WPPSS NUCLEAR PROJECT NO. 2
DOCKET NO. 50-397, CPPR-93
NRC INSPECTION - June 3 - July 25, 1980
REPORT NO. 50-397/80-08

Reference: Letter R.H. Engelken to R.L. Ferguson, dated August 15, 1980

Dear Mr. Engelken:

Washington Public Power Supply System hereby replies to the Notice of Violation which was transmitted to us as Appendix A to your letter dated August 15, 1980. The reply pursuant to 10CFR paragraph 2.201 consists of this letter and Appendix A. The scope of the reply to the Notice of Violation includes the matters relating to that notice discussed both in your transmittal letter and in the text of Appendix A itself.

In Appendix A, we quote the items of noncompliance from Appendix A of your August 15, 1980 letter, address the corrective actions which have already been or will be taken to correct the noncompliance, identify actions which already have been or will be taken to avoid further items of noncompliance and the dates when full compliance will be achieved.

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

Very truly yours,

DL Renberger

D.L. Renberger
Assistant Director,
Generation and Technology

DLR/JPT/nsm
Attachment: as stated
cc: JM Blas - B&R, NY - w/1
JR Lewis - BPA - w/1
JJ Verderber - B&R NY - w/1
HR Cantor - B&R, NY - w/1
V. Stello - Office of Inspection & Enforcement, WDC - w/1

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SO-141

APPENDIX A

Washington Public Power Supply System
P. O. Box 968
Richland, Washington 99352

Construction Permit No. CPPR-93

NOTICE OF VIOLATION

Based on the results of an NRC investigation conducted between June 1 through July 25, 1980, it appears that certain of your activities were not conducted in full compliance with conditions of your NRC Facility License No. CPPR-93 as indicated below.

The NRC investigation revealed significant deficiencies in your quality assurance program, in that work performed by the contractor, Wright, Schuchart, Harbor, Boecon, Bovee & Crail, GERI (WBG), did not conform to the criteria of 10 CFR 50, Appendix B, as described in Appendix D of your PSAR. Specifically, prior to June 1980, the items listed below had not been identified or corrected by the project quality assurance organization.

A. 10 CFR 50, Appendix B, Criterion I, and PSAR, Appendix D, paragraph D.2.5.1 states, in part, that "The persons and organization performing quality assurance functions shall have sufficient authority and organizational freedom to identify quality problems; to initiate, recommend, or provide solutions; to verify implementation of solutions. Such persons and organizations performing quality assurance functions shall report to a management level such that this required authority and organizational freedom including sufficient independence from cost and schedule when opposed to safety considerations, are provided."

Contrary to the above requirements, on November 15, 1979, your site contractor (WBG) responsible for safety related mechanical construction and related quality assurance functions, established the authority of the Swing Shift Construction General Superintendent to order the termination of swing shift QA/QC personnel. Memorandums Nos. LGB-229 and PWS-063 from the contractor's QC Manager and QA Manager documented this authority of the Swing Shift Construction General Superintendent.

This is an infraction.

ACTION TO CORRECT DEFICIENCY

On July 23, 1980, Wright, Schuchart, Harbor/Boecon/General Energy Resources, Inc., (WBG) QA Manager rescinded Interoffice Memo No. PWS-063, dated December 5, 1979 and Interoffice Memo No. LGB-229, dated November 15, 1979, by issuing Interoffice Memo No. TBP-009, dated September 9, 1980. This memo clearly establishes and reaffirms QA/QC independence from construction.

ACTIONS TO PREVENT RECURRENCE

The QA/QC managers responsible for issuing the rescinded Interoffice Memos have been replaced. A letter will be sent to all site contractors stating the intent of 10 CFR 50 with regard to QA/QC independence from cost and schedules.

DATE OF FULL COMPLIANCE

10/1/80

B. 10 CFR 50, Appendix B, Criterion V, states that "activities affecting quality shall be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Instructions, procedures or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished."

Paragraph D.2.5.5 of the QA Program as delineated in the PSAR states in part, that "Activities affecting quality...shall be accomplished in accordance with these instructions, procedures, or drawings..."

1. The contractor's "Field Quality Assurance Manual", Revision 10 for WPPSS Contract No. 2808-215, in paragraph 17.2.3 states, "The completed document package shall be delivered to the Project Quality Assurance Manager or his designee for review and acceptance. He will indicate his acceptance by signing the work package".

Contrary to the above, as of June 9, 1980, the document package for low pressure core spray pump LPCS-P-2 which had been reviewed and accepted by the Quality Assurance Manager's designee on December 10, 1979, was incomplete. Quality records in the package pertaining to equipment bolting and alignment (forms NF-159) are dated December 11 and 13, 1979.

This is a deficiency.

ACTIONS TO CORRECT DEFICIENCY

This condition occurred as a result of additional work being required subsequent to the work package approval. The document package for LPCS-P-2 has been reviewed again, the deficiency corrected and approved. There are only eight equipment installation packages in the WBG QA vault that have been reviewed and accepted. These eight packages will be reviewed again to assure that they do not have the same deficiency.

ACTIONS TO PREVENT RECURRENCE

Work Procedure No. 115 and Work Procedure No. 86 will be revised to prevent completed work packages from being returned to the field after approval. This will be accomplished by requiring all rework and revision of packages to be done through the usage of addendum work packages. Addendum packages will be reviewed and approved in the same manner as the original package when completed.

DATE OF FULL COMPLIANCE

12/1/80

2. WBG Quality Assurance Procedure, QAP-5, paragraph 1.1 states that the "procedure provides the responsibilities and methods for the control of nonconforming conditions found in...construction activities" and further prescribes in paragraph 3.1.2 that "Quality Assurance, Quality Control and Quality Engineering personnel shall initiate an inspection report (IR) upon discovery of an apparent discrepant condition." The WBG QCI-2 (Non-destructive Testing Procedure for Magnetic Particle Inspection) required in paragraph 5.7 that magnetizing current shall be used at a minimum of 90 and a maximum of 110 amps per inch of prod spacing for sections less than 3/4" thick.

   Contary to the above requirements, the inspector observed that two surveillance reports, performed by the WBG Level III examiner, each dated 9/12/79, identified that, during the performance of magnetic particle examinations of material less than 3/4" thick, the amperage was not lowered following a decrease in prod spacing from 4.5" to 3" thereby increasing the amperage from approximately 100 amps per inch to 150 amps per inch. The report identified this as a noncompliance with specifications and no inspection report was written.

   This is a deficiency.

ACTION TO CORRECT DEFICIENCY

Inspection Report No. 6074 was written to document the discrepancy. All previous surveillance reports will be reviewed to assure that inspection reports were generated as required.

ACTION TO PREVENT RECURRENCE

WBG will review Quality Assurance Procedure No. 15 to assure adequate instructions are provided for the inspector. The Level III examiner will be retrained to the requirements of documenting nonconforming conditions.

DATE OF FULL COMPLIANCE

12/1/80

3. Piping isometric drawings SW-290-11.20 and SW-297-8.17 identify that these spools are subject to the requirements of the ASME Boiler and Pressure Vessel Code, 1971 Edition, Section III, Class III and were identified as Quality Class I. The examination requirements and acceptance criteria for welds in ASME Section III, Class III piping, pumps and valves are specified in paragraph ND-5220.

   Contrary to the above requirements, the governing acceptance standard identified in Northwest Industrial XRay Liquid Penetrant Examination Reports Nos. 230 and 244, dated July 31, 1975 and August 20, 1975 respectively, was ASME Section VIII. The liquid penetrant examination reports indicated that the results of these examinations performed on pipe spools SW-290-11.20 and SW-297-8.17 were evaluated to the acceptance standards of ASME Section VIII. These standards are less stringent than those required by ASME Section III.

   This is a deficiency.

ACTIONS TO CORRECT DEFICIENCY

Inspection Report No. 6047 was written to document the discrepancy. WBG will review all completed liquid penetrant reports and segregate those reports with the incorrect acceptance standard and document any additional discrepancies on Inspection Reports. These discrepant liquid penetrant reports will be reviewed against the ASME Section III requirements and appropriately dispositioned.

ACTIONS TO PREVENT RECURRENCE

The acceptance criteria for liquid penetrant examinations are delineated in QAP-16. These acceptance criteria conform to ASME Section III requirements, even though QAP-16 references ASME Section VIII in addition to ASME Section III. QAP-16 will be revised to delete reference to ASME Section VIII.

DATE OF FULL COMPLIANCE

12/1/80

4. WBG Quality Control Procedure No. 24 (QCP-24), Attachment 2 (Box in Clearance) requires that for systems under 200° F and piping sizes from 2 1/2" to 12" the maximum allowed clearance between support and pipe, when summed on both sides, be 1/8". QCP-24, Attachment 6 (Stop Clearance) specifies that the sum of clearances between both pipe stop attachments and the support structure be a maximum of 1/8".

   Contrary to the above requirements, the inspector observed the following:

   (a) The summed horizontal clearance between the 4" pipe and support was 3/16" for support No. EDR-362. The support was as-built by WBG Engineering and inspected and accepted by QC on March 22, 1979.

   (b) The summed horizontal clearance between the upper pipe stops and the support structure was 7/32" for support No. RCC-457. The as-built drawing had been prepared by WBG Engineering and the support inspected and accepted by QC on December 7, 1979.

   This is an infraction.

ACTIONS TO CORRECT DEFICIENCY

Inspection Reports have been issued for both EDR-362 and RCC-457. The entire "as-built" program is being revised and all previous "as-builts" will be reverified by WBG for compliance to the new "as-built" procedure. Conditions which do not comply with the "as-built" procedure requirements shall be documented on IR's and appropriately dispositioned. Final acceptability of the "as-built" will be determined during the A/E technical acceptance of the "as-built" hanger drawing and the system stress review.

ACTIONS TO PREVENT RECURRENCE

WBG is developing a new training program and will train all its employees to all applicable procedures prior to sending them out to the field to perform any quality related work.

DATE OF FULL COMPLIANCE

11/1/80

5. WBG Project Directive No. 75, paragraph 6.3.1 states that "Calculations required for minor re-design shall be limited to: those cases involving any changes in the sizes of members, welds or configuration, which will result in increasing the stress in members of connections..."

WBG Project Directive No. 75, paragraph 7.1.3 also states, in part, "All modifications...shall be noted on the support detail to reflect field revised conditions prior to performing the work and initialed and dated by the Field Engineer or WBG Design Supervisor."

Contrary to the above requirements:

(a) The "as-built" drawing for support MSLC-21 modified the originally approved detail in such a way that the originally specified 1/4" fillet, all around, for attaching PC2 to PC4, was changed to a 1/4" fillet only on the outside of each PC2 flange and a full slot weld attaching the web of PC2 to the flange of PC4. The deletion of the fillet weld on the inside of the flanges of PC2 would increase the stress in the connection. Calculations had not been prepared to justify the change and the changed welding details were not initialed or dated.

(b) The "as-built" drawing for support RHR-326 was revised to specify a new weld joint without the necessary calculations to justify the change. The weld attaching the Lubrite assembly to the pipe was originally specified as a bevel-groove weld. On May 16, 1980, the weld symbol was modified by WBG Engineering to indicate a square butt (groove) weld since the weld configuration did not conform to a bevel-groove weld. The existing weld is not a groove weld configuration, but is configured as a "cap" weld.

The "as-built" drawing had been prepared by WBG Field Engineering on May 8, 1980, and the support inspected and accepted by QC on May 9, 1980, with a note that the snubber was missing. The EQA audit identified that this weld was undersized and not welded to detail. The EQA finding was resolved by the notation that the weld symbol was changed and the weld was "ok" on May 16, 1980. No calculations were performed justifying the adequacy of the resolution provided for the EQA finding.

(c) The weld details of the "as-built" drawings dated June 8, 1979 for support No. RRC-3 were modified to conform to the "as-built" configuration on January 24, 1980 by a WBG engineer. This changed the welding detail from that approved by Burns & Roe in the original drawing on March 11, 1978. The changes involved the deletion of a fillet weld and addition of a weld across the flange of an I-beam. Calculations and the designer's approval were not provided to support the acceptibility of this design change.

This is an infraction.

5. Continued

ACTIONS TO CORRECT DEFICIENCY

Inspection Reports have been issued for hangers MSLC-21, RHR-326 and RRC-3. These hangers will be "as-built" again, technically reviewed and design verification performed under the same program which was described in the response to the previous infraction.

ACTIONS TO PREVENT RECURRENCE

In the future, all design changes will be approved by the A/E prior to the changes being made. The WBG task force that is reviewing the hanger installation requirements and procedures is making changes to installation procedures to assure that installations are performed to specification requirements.

DATE OF FULL COMPLIANCE

12/1/80

6. Contract specification 2808-215, Section 17A, paragraph 3.4 requires that weld filler material for welding P-8 material shall be "type E308 or type E316 or as specified in the approved weld procedure". The WBG Welding Procedure Specification #5 (for P-8 material welding) requires E308-16 filler metal.

   Contrary to the above, on October 11, 1979 and thereabout, WBG personnel welded eighteen P-8 to the P-8 material socket welds with the incorrect filler metal and with the incorrect welding procedure. Welds numbered MS-538-1-FW2 through MS-555-1FW2 were completed using E309-16 filler metal using welding procedure specification #6 (for P-8 to P-1 welding). These are welds of thermowells to nozzles on safety relief valve lines.

This is an infraction.

ACTIONS TO CORRECT DEFICIENCY

A Nonconformance Report (NCR-5404) was issued on these welds. The proposed disposition of this NCR was to "accept-as-is". This disposition was accepted by the A/E. This deficiency was caused by an incorrect weld callout by the weld engineer. To assure that this was an isolated case, a sample of the weld records prepared by this weld engineer will be reviewed for accuracy. Based on the results of the review, appropriate corrective action will be implemented, if required.

ACTION TO PREVENT RECURRENCE

If there are additional errors discovered during the review of weld records, appropriate actions will be taken with regard to the responsible weld engineer and his previous work. The QA Program Review, now under way, is reviewing NCR's, IR's, etc., for potential trends. Corrective action will be taken, as necessary when trends are identified.

DATE OF FULL COMPLIANCE

11/1/80

7. The WBG Work Procedure No. WP84, Weld and Repair Procedure for Structural Steel within the Reactor Drywell - Attachment Welding to Sacrificial Shield Wall, Paragraph 8.2 states, in part, "each weld shall be magnetic particle tested as a minimum...at 72 hours or more after completion and cooldown of the last weld in the sequence..."

   Contrary to the above requirement, as of June 10, 1980, accepted welds 5-1 and 6-1 attaching pipe support EDR-392 to the sacrificial shield wall had not been magnetic particle tested. The pertinent blocks on Form NF-6B for documenting the required inspections had been marked "NR" (not required).

This is an infraction.

ACTIONS TO CORRECT DEFICIENCY

Work Procedure No. 84 is a comprehensive work procedure which invokes attachments for specific types of jobs. For the welding of EDR hangers attachment 52 is required. The inspector selected attachment 83, which is for the most common situation encountered. This attachment does not require the 72 hour MT. An Inspection Report was written to document this deficiency. The 72 hour MT has now been performed and found acceptable. A sample of the hanger packages that were worked to the requirements of Work Procedure No. 84 will be reviewed to determine if this problem is of a generic nature. Based on the sample review results all of these packages will be reviewed. Inspection Reports will be issued for all discrepencies found and corrected.

ACTIONS TO PREVENT RECURRENCE

Work Procedure No. 84 will be reviewed with the intent of simplifying and consolidating it's requirements, so that it will be clear which attachment is to be used under all conditions. All WBG personnel performing work and/or inspections in accordance with Work Procedure No. 84, will be trained to Work Procedure No. 84 prior to going out in the field.

DATE OF FULL COMPLIANCE

12/1/80

C. 10 CFR 50, Appendix B, Criterion VI, and Appendix D, paragraph D.3 of the PSAR state, in part, "Changes to documents shall be reviewed and approved by the same organizations that performed the original review and approval unless the applicant designates another responsible organization."

With respect to the control of traceability of certified materials the WBG procedures QCP-24 (paragraph 6.5), Project Directive No. 75 (paragraph 7.8.1) and QCP-17 (paragraph 5.1) state that "When a part is cut from an originally identified piece, the identification shall be accurately transferred to the cut prior to the cut". These procedures were approved for fabrication by Burns & Roe on the dates indicated: Project Directive No. 75 (Hanger Engineering Standard), Revision 4, on June 26, 1979; Quality Control Procedure No. 17 (Traceability Procedure), Revision 8, on April 4, 1979; and Quality Control Procedure No. 24 (Hanger Inspection-Traceability Systems), Revision 8, on April 11, 1980.

Contrary to the above requirements, on January 18, 1980, the WBG QA Manager issued an interoffice memo (No. PWS-102) to all QA/QC personnel, without prior Burns & Roe approval, which modified the traceability marking requirements of the above procedure in that the memo eliminated the requirement to provide a traceability mark on the material.

This is an infraction.

ACTIONS TO CORRECT DEFICIENCY

Interoffice Memo No. PWS-102, dated January 18, 1980 has been rescinded by Interoffice Memo No. TPB-038, dated August 1, 1980. Work accepted under the direction of the rescinded memo will be identified and Inspection Reports will be issued if deficiencies are found.

ACTIONS TO PREVENT RECURRENCE

An Interoffice Memo No. TPB-107, dated September 9, 1980 has been issued emphasizing the requirement that all changes to documents shall be reviewed and approved by the same organizations as the original documents, and that memos shall not be used to alter procedures. QCP-24, QCP-27, and Project Directive 75 have all been incorporated into WP-117. Work Procedure No. 117 is being rewritten to clearly establish the traceability requirements.

A letter will be sent to all site contractors stating that changes to documents shall be reviewed and approved by the same organizations that performed the original review and approval.

DATE OF FULL COMPLIANCE

12/1/80

D. 10 CFR 50, Appendix B, Criterion XVII, states, in part, that "sufficient records shall be maintained to furnish evidence of activities affecting quality. The records shall include at least the following: operating logs and the results of reviews, inspections, tests, audits, monitoring of work performance, and materials analyses...Records shall be identifiable and retrievable." The WPPSS implementing commitment for 10 CFR 50, Appendix B, Criterion XVII, is described in Appendix D, paragraph D.3.4.17 of the PSAR which states the required records shall be identifiable and retrievable. Contract specification 2808-215, Part 52A, Section 3.17, requires the contractor to implement a system of receipt control which shall include a records clerk list designating the required quality assurance records structured to permit a current and accurate assessment of the status of quality assurance records during the process of records receipt.

1. The Contractor's Field Quality Assurance Manual, paragraph 17.2 states, in part, that "...as documents are received they shall be checked for completeness and acceptability...a document checklist shall be prepared..."

Contrary to the above:

a) On June 23, 1980, a document checklist was not prepared nor was another method established for performance of an accurate and current assessment of the status weld repair records for structural steel at elevation 524' of the reactor containment building. Document reviewers could not assess from the records whether or not they had all of the weld records for repairs of steel shown on drawings FSK-215 through FSK-217.

b) On December 28, 1979, the contractor certified as complete, the records package for structural steel at elevation 565' of the reactor building, although neither a checklist or other method had yet been established for assessing the status of the records.

This is a deficiency.

ACTIONS TO CORRECT DEFICIENCY

A checklist will be developed in order to establish a complete listing of all records required for a completed work package. A checklist will also be developed that will list all documentation of each work package that was previously accepted. These checklists will be checked against each other and all discrepancies will be documented on inspection reports.

ACTIONS TO PREVENT RECURRENCE

All new work will have work packages developed using a checklist of required items. The task force that is developing these checklists is also establishing guidelines which will be used during the review of work packages.

DATE OF FULL COMPLIANCE

1/1/80

2. Contract Specification 2808-215, Section 52A, paragraph 3.8 requires that "Objective evidence shall be available which substantiates the approval of a vendor as an acceptable source of equipment, material or service". The Contractor's Quality Assurance Manual, Section II requires in paragraph 3.2.1, "All purchases are made from either A or B vendors on the Approved Vendor's List" and in paragraph 3.2.4, "A file shall be maintained on each vendor, including the original basis for acceptance, and periodic reports of service experience".

   Contrary to the above requirements, on September 11, 1978, the Bovee and Crail/GERI QA Department issued a letter to Puget Sound Company identifying that the vendor was "supplying ASME material to us in violation of the ASME Section III, paragraph NA 3732". No periodic report of the service was in the vendor file, and no other data was available to identify the nature of the violations, their evaluation, and disposition of the material.

This is a deficiency.

ACTIONS TO CORRECT DEFICIENCY

The survey report initiating the action against Puget Sound Company cannot be located by WBG. WBG has initiated Corrective Action Report No. 183 to document this deficiency. As a part of the resolution of this Corrective Action Report, a review will be conducted to insure that all vendor survey reports for the period from July 18, 1978 to the present are on file. An evaluation of the adequacy of the material supplied by Puget Sound Company will be made from the time of the last satisfactory WBG survey (July 6, 1977) to the time that they were deleted from the list of "approved vendors for Quality Class I materials" September 11, 1978.

ACTIONS TO PREVENT RECURRENCE

Quality Assurance Procedure No. 1 will be revised to include a requirement that survey reports must be prepared within two weeks of the date of survey. The Quality Assurance Procedures controlling source vendor evaluation and audits have been recently revised. Project Quality Assurance will evaluate these procedures for adequacy of logging, filing, and control of required documentation to insure provisions are established to prevent recurrence of this condition.

DATE OF FULL COMPLIANCE

12/1/80

3. WBG Quality Assurance Manual, Section 10, paragraph 10.3.1 states, in part, that "all welding including tack welding is performed by welders qualified as required by Section III and Section IX of the ASME Code." ASME Section III, paragraphs NX-4321(b) and NX-4321.2 require the welders of temporary attachments and tack welds to be qualified and that the material used for temporary attachments be compatible for welding to the component material and be certified. WBG Work Procedure No. 42, paragraph 20 requires with respect to "Welder Record", a record of welder's name(s), filler metal used (includes heat and lot numbers as applicable), and the date(s) that welding was performed.

   Contrary to the above requirements, the weld record packages did not contain identification of welders or filler metals used for tack welds and temporary attachments made on pipe spools LPC-756-5.6, LPCS-756-19.21 and LPCS-2271-1.

This is an infraction.

ACTIONS TO CORRECT DEFICIENCY

The date and locations of all temporary attachments, welder, and weld filler metal identification are recorded on Form NF-286. A review of all work packages requiring traceability will be conducted to determine when the NF-286 form is required. Copies of the required NF-286 forms will be incorporated into the work packages. IR's will be issued when NF-286 forms are required but not located. Inspection reports have been written on the weld record packages for pipe spools LPCS-756-5.6, LPCS-756-19.21 and LPCS-2271-1.

ACTIONS TO PREVENT RECURRENCE

Work Procedure No. 42 has been revised and now provides for recording the welder identification, weld process, and identification of the filler material for temporary attachments and tack welds on the work package weld material.

DATE OF FULL COMPLIANCE

1/1/81