

Washington Public Power Supply System  
A JOINT OPERATING AGENCY

P. O. BOX 1223

ELMA, WASHINGTON 98541



PHONE (206) 249-5001

April 16, 1981  
G03-81-933

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

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

Gentlemen:

Subject: WPPSS NUCLEAR PROJECTS 3 AND 5  
NRC INSPECTION OF WNP-3 AND WNP-5  
DOCKET NUMBERS 50-508 AND 50-509

Reference: 1) Letter, J. L. Crews, to D. E. Dobson, NRC  
Inspection at WNP-3/5, dated March 24, 1981.

This letter is in response to your letter of March 24, 1981, which discussed the results of the inspection conducted January 8 thru 30, 1981, of activities authorized by Nuclear Regulatory Commission Construction Permit Numbers CPPR-154 and CPPR-155. The letter identified four (4) items of noncompliance 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 response is provided in Attachment I of 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

Attachment

cc: D. Smithpeter - BPA  
Ebasco - New York  
WNP-3/5 Files - Richland

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As a result of the inspection conducted on January 5 to 30, 1981, and in accordance with the Interim Enforcement Policy, 45 FR 66754 (October 7, 1980), the following violations were identified:

Finding A

10 CFR 50, Appendix B, Criterion V states, in part, that "Activities affecting quality shall be prescribed by documented instructions...and shall be accomplished in accordance with these instructions...".

Paragraph 17.4.5 of the Quality Assurance Program documented in the PSAR states, in part, that, "Provisions are made for assuring that all quality related activities on structures...are performed in accordance with approved instructions...".

Approved contractor instruction no. AI-14-WPPSS (contract no. 3240-263) requires that all structural welds on quality class I structural steel be inspected and the inspections documented on an inspection report (form QC-19).

Contrary to the above, on January 21, 1981 there was no inspection report for a Unit 3 structural steel weld connecting the beam clip for beam 237F to the embed plate. A structural Steel Checklist, dated April 28, 1980 indicated that the contractor had accepted this portion of the structure.

This is a severity level V violation applicable to Unit 3 only.

Corrective Steps Which Have Been Taken and the Results Achieved

Morrison-Knudsen Company issued a stop work on all structural steel erection effective January 21, 1981. Subsequent to this stop work, Corrective Action Request 33 was generated by Morrison-Knudsen, to define the actions required to complete the stop work. These actions address visual inspections of bolted and welded connections, torque verification of bolted connections, and review of connection documentation.

Corrective Steps Which Will be Taken to Avoid Further Items of Noncompliance

All field personnel have received additional training on the requirements of procedure CP-05, and drawing requirements. Additional field inspection personnel and QA Engineering Surveillance will provide more intensive monitoring of field activities.

Specific personnel involved in the poor workmanship or documentation problems have been terminated.

Date of Full Compliance

The efforts involved in CAR 033 will be completed by Morrison-Knudsen by June 15, 1981. Involved in the effort will be an inspection report for

the subject connections. Resulting nonconformances detected will be prepared and dispositioned by July 30, 1981.

Finding B

10 CFR 50, Appendix B, Criterion V, states, in part, 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."

Paragraph 17.1.5 of the WPPSS Quality Assurance Program, as documented in the PSAR, states, in part, that "...Contractors...are required to have written instructions, procedures, policies, and/or drawings which govern their quality related activities and which include appropriate quantitative and qualitative acceptance/rejection criteria..."

Paragraphs 3.8.5.6 and 3.8.3.6 of the WPPSS PSAR specifies that construction will be performed in accordance with the American National Standard ANSI N45.2.5.

The American National Standard ANSI N45.2.5, paragraph 5.4 states, in part, that "...all connection points shall be visually inspected for the following items: 1. Bolts are the correct length...correct type bolt is used...washers are used when required..."

Contract 3240-263 for structural steel erection requires that bolting be performed in accordance with the American National Standard ANSI N45.2.5.

Contrary to the above requirements, the 3240-263 contractor's approved procedure, which had been implemented prior to January 21, 1981, required inspection on only 20% or two bolts per connection point. This procedure is inappropriate in that it prescribes inspection requirements less than those specified in the contract specifications and ANSI N45.2.5.

This is a Severity Level V violation applicable to Units 3 and 5.

Corrective Steps Which Have Been Taken and the Results Achieved

Morrison-Knudsen's Corrective Action Request 033 required a 100% visual verification of all accessible structural steel bolted connections. This inspection will provide assurance all requirements of ANSI N45.2.5 have been met during structural steel erection. Deviations to contract requirements in Unit 5 have been documented on Nonconformance reports. Unit 3 nonconformance will be similarly recorded at the completion of CAR 033 inspections.

Corrective Steps Which Will be Taken to Avoid Further Items of Noncompliance

The structural steel erection procedure CP-05 will be revised to more clearly define visual inspection of bolted connections. This clarification will assure complete compliance with ANSI N45.2.5 requirements.

Date of Full Compliance

CP-05 Revision 6 will be fully implemented by May 1, 1981.

Finding C

10 CFR 50, Appendix B, Criterion X, states, in part, that, "A program for inspection of activities shall be established and executed...to verify conformance with the documented instructions, procedures, and drawings for accomplishing the activity..."

Paragraph 17.4.10.3 of the WPPSS Quality Assurance Program as documented in the PSAR, states, in part, that "Specific contractor inspections are to be performed for verifying conformance to contract requirements...and acceptability of material and equipment which have been installed and erected on the construction site are in accordance with approved site contractor procedures..."

Approved site contractor (3240-263) procedure no. CP-05 requires that bolting be performed in accordance with approved erection drawings and that plate or bar type washers be used on the outer ply of joints having long slotted holes. Erection drawing no. G3435 designates that washers shall be used for anchor bolting columns.

Contrary to the above, on January 21, 1981, the bolts connecting Unit 3 beams 235E and 237D to the wall clip were not equipped with plate or bar washers over the long slotted holes, Unit 3 column no. 12A had been anchor bolted without the use of washers, and Unit 5 connection of beam 43C to column 419A contained one bolt without the required washer. Contractor quality records indicated that this bolting had been previously inspected and accepted by the contractor's quality control staff.

This is a severity level IV violation applicable to Units 3 and 5.

Corrective Steps Which Have Been Taken and the Results Achieved

Corrective Action Request 33 actions have been completed for Unit 5. The deviation in Unit 5 connection of beam 43C to column 419A, without the required washer, has been documented on nonconformance report 5270. Structural steel erection nonconformances noted during the CAR-33 work in Unit 3 will be similarly recorded.

Corrective Steps Which Will Be Taken to Avoid Further Items of Noncompliance

Refer to the response to finding A.

Date of Full Compliance

All corrective actions will have been completed or fully implemented by July 30, 1981 as noted for Finding A.

Finding D

10 CFR 50, Appendix B, Criterion XVII, states, in part, that "Sufficient records shall be maintained to furnish evidence of activities affecting quality...Inspection and test records shall, as a minimum, identify the inspector or data recorder...".

Paragraph 8.7 of contract 3248-263 procedure no. CP-05 (entitled "Structural Steel Erection") requires the development of "as-built" drawing records for structural steel connections and requires that each connection shall be verified as complete by signifying with (QC) initial or stamp for that connection. Further, the procedure requires the documentation of bolting inspections on inspection report form no. QC-19FIR. This form includes an area to identify the specific items inspected.

Contrary to the above requirements, on January 21, 1981, the following record discrepancies were identified:

- (1) The completed as built drawing for Unit 5 structural steel associated with concrete placement no. 5ABS-010-362 contained no verifying initials or inspection stamps.
- (2) QC-19FIR no. 5-SB-42 dated November 6, 1980 indicated eight bolts were inspected in each of four connections (two numbered 270F-260A and two numbered 270F-262A) when, in fact, the design drawings and actual installation contained only four bolts per connection. Similarly, connection no. 251F-247E-263C was reported to have fourteen bolts, when only twelve were required and installed.
- (3) A QC-19FIR form could not be located for the inspection of bolting on unit 3 column no. 12A, although contractor representatives reported this bolting complete and accepted in March 1980.

This is a severity level VI violation applicable to Units 3 and 5.

Corrective Steps Which Have Been Taken and the Results Achieved

- (1) This condition has been documented on nonconformance report 5587.
- (2) Corrective Action Request 033 inspection results have been recorded for Unit 5 structural steel erection. QC-19FIR no. 5-SB-42 included connections which have been reinspected per ANSI N45.2.5 requirements. Inspections noted on 4-SB-42 are now included in 5-SB-85, 88, 90, 93, 94, 98, 146, 158, and 186 which resulted from the CAR 33 work.
- (3) This item will be corrected during the CAR-033 reinspection effort.

Corrective Steps Which Will be Taken to Avoid Further Items of  
Noncompliance

Corrective steps are those defined for Finding A.

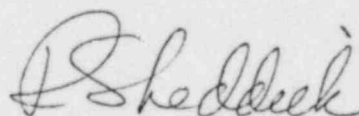
Date of Full Compliance

July 30, 1981 is the date of full compliance as noted for Finding A.



R. S. LEDDICK, Being first duly sworn, deposes and says: That he is the Program Director, 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 17 APRIL, 1981.

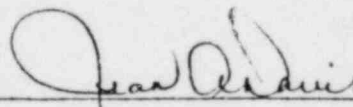


R. S. LEDDICK

STATE OF WASHINGTON )  
COUNTY OF GRAYS HARBOR ) ss

On this day personally appeared before me R. S. LEDDICK 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 17<sup>th</sup> day of April, 1981.



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