

Washington Public Power Supply System

Box 1223 Elma, Washington 98541 (206) 482-4428

RECEIVED
NRC

1982 DEC -6 PM 1:18

REGION VISE

Docket No. 50-508
Docket No. 50-509

December 2, 1982
G03-82-1240

U. S. Nuclear Regulatory Commission, Region V
Office of Inspection and Enforcement
1450 Maria Lane, Suite 260
Walnut Creek, California 94596-5368

Attention: Mr. D. M. Sternberg
Chief, Reactor Projects Branch No. 1

Subject: NRC INSPECTION AT WNP-3/5
IE REPORT NO. 50-508/82-04
VIOLATION A (NONCOMPLIANCE 50-508/82-04-01)

Reference: Letter, G03-82-838, dated August 23, 1982,
R. S. Leddick to T. W. Bishop, same subject.

The referenced letter noted that at the time, the scope of the subject violation (failure to fabricate and install CB&I structures in accordance with Quality Class I) could not be determined. Therefore, a date of full compliance could not be established. However, a status of corrective actions taken/planned was provided pending issuance of a final report.

Attached is the final report of corrective/preventive actions and a date of full compliance for the subject violation. Should you have any questions or desire further information, please contact me directly.


R. S. Leddick (760)
Program Director, WNP-3

Attachment

cc: Mr. J. A. Adams - NESCO
Mr. D. Smithpeter - BPA
Ebasco - New York
WNP-3 Files - Richland

VIOLATION A (Noncompliance 50-508/82-04/01)

10CFR50, Appendix B, Criterion II states that: "The quality assurance programs shall provide control over activities affecting the quality of the identified structures, systems and components, to an extent consistent with their importance to safety.

Paragraph 17.1.2 of the Quality Assurance Program documented in approved PSAR Deviation No. 26-WP, states, in part, that: "The Supply System requires its Quality Class I contractors...to establish and implement Quality Assurance Programs consistent with the applicable criteria of 10CFR50, Appendix B."

WPPSS Quality Assurance Requirement No. QAR-2-2, Rev. 1, Paragraph 2.1 states, in part, that: "Quality Class I items are required to meet the applicable provisions of 10CFR50, Appendix B.

Ebasco Specification No. 3240-213 entitled "Steel Containment Vessel" is classified as a WPPSS Quality Class I specification. Paragraph 1.1 of this specification states, in part, that: "The Containment Vessel includes...dome inspection walkway and handrail...all in accordance with this specification as shown on the following contract drawings:
1. 3240-G-3500 Reactor Building Primary Containment Vessel-SH 1..."

Ebasco Drawing No. 3240-G-3500, SH 1, Rev. 8, "Reactor Building Primary Containment Vessel" as approved for construction is labeled "WPPSS Quality Class I" and depicts the dome inspection walkway and handrail to be supplied by the 213 Contractor.

Contrary to the above, on March 5, 1982, the inspector observed undersized welds, excessive undercut, and partial penetration welds in lieu of the required full penetration welds on installed and painted portions of the Unit No. 3 dome inspection platform from elevation 579'-0" to 595'-0". It was thereafter determined that these structures had been fabricated and installed in accordance with Chicago Bridge and Iron Quality Classification "D" as approved by Ebasco on Chicago Bridge and Iron Drawing No. 74-3431 Rev. 6 (Ebasco No. 3240-29307, Rev. 6) even though an analysis had not been performed to determine that the failure of the structures would not significantly affect safety-related components. Chicago Bridge and Iron Quality Classification "D" does not satisfy WPPSS Quality Class I and 10CFR50, Appendix B requirements.

Corrective Steps Taken and Results Achieved

CB&I provided Ebasco with a list of all structures specified or furnished as CB&I class "D". Ebasco subsequently reviewed the list and divided the structures into two groups, designated "A" and "B". This listing of "A" and "B" items is provided by Attachment 2. Corrective actions regarding these items are as follows:

VIOLATION A (Noncompliance 50-508/82-04/01)

Page 2

Corrective Steps Taken and Results Achieved (Continued)"B" Items

- Ebasco has determined that failure of these items would not affect safety-related components. Therefore, seismic analysis and additional inspections are not required.
- For all "B" items, CB&I will furnish, by December 15, 1982, a Certificate of Conformance to the material specification listed on the CB&I drawing.

"A" Items

Corrective actions for these items involved three (3) areas: (1) seismic analysis; (2) Certificate of Conformance; (3) reinspections and repairs, if required. Specifically, actions were taken as follows:

1) Seismic Analysis

- Ebasco and CB&I jointly performed the seismic analysis of all "A" items. The analysis determined that all items are seismically qualified to perform their design functions.
- For Items A2 and A3, A Project Change Proposal (PCP) was issued to change the quality classification to CB&I Class "C" (i.e., WPPSS Class I). These two items were subsequently fabricated and inspected in accordance with the requirements of WPPSS Quality Class I.
- For Items A1 and A4 through A10, quality class downgrade to WPPSS Quality Class G (with seismic analysis and inspections discussed in Item 3 below) is proposed. The additional analysis and inspection, implemented for these items, has been determined to adequately satisfy the applicable portions of 10CFR50, Appendix B. Ebasco will revise FSAR Table 3.2-1, Note 17, to reflect the Quality Class G status of items as discussed above. The revision is scheduled for completion by March 30, 1983.

2) Certificate of Conformance

- For all "A" Items (excluding A2 and A3) CB&I will furnish, by December 15, 1982, a Certificate of Conformance to the material specification listed on the CB&I drawing.

3) Inspections and Repairs

- Inspection and documentation of all "A" items on Attachment 2 (except Items A2 and A3 which are discussed above) is in progress. The inspections have been/are being performed as follows:

VIOLATION A (Noncompliance 50-508/82-04/01)

Page 3

Corrective Steps Taken and Results Achieved (Continued)3) Inspections and Repairs (Continued)

- a) All questionable welds joining the CB&I Class D materials were visually examined (VT) to the requirements outlined in the original NCR that documented the deficiency. Painted items were inspected without removing the paint. Questionable areas were stripped, if painted; reinspected, repaired as necessary and repainted to the criteria specified on the original NCR. VT reports were prepared for each assembly, as detailed on the CB&I drawings, to document results of the inspections.
 - b) All of the high strength bolts (A325, A490, A449) used in the installation of the Class D material of Attachment I, shall be torque checked, using a calibrated torque wrench, to the requirements of AISC 7th edition, Table 1.23.5. The inspection results shall be documented.
 - c) All other bolts used in the installation shall be wrench checked as snug tight. The inspection results are being documented.
- All welds found deficient, as a result of the inspections discussed above, have been repaired by CB&I.

Actions Taken to Prevent Future Items of Noncompliance

Ebasco New York has completed a review of their program for contract review and approval to determine the cause of the incorrect quality classifications. The review disclosed that, during the process of contract execution, CB&I specified the use of Class D material in accordance with the provisions of their QA Manual. During the review and approval cycles, the various Ebasco groups involved did not recognize that the Class D material did not meet the intent of WPPSS Quality Class I. Accordingly, the following preventive actions have been initiated/taken:

- Ebasco New York personnel involved in the contract review and approval cycle, including QA, have been informed of the problem by: 1) distribution of the correspondence concerning the deficiency; or 2) by verbal instructions from Supervision.
- Other CB&I contracts for WNP-3 have been reviewed by Ebasco New York to verify that no unauthorized Class D material has been used.
- Ebasco New York Contract Administration will revise their procedures governing bid evaluation to include the following:

VIOLATION A (Noncompliance 50-508/82-04/01)

Page 4

Actions Taken to Prevent Future Items of Noncompliance (Continued)

"In order for a bid to be considered responsive, the Contractor shall have certified that WPPSS Quality Class I work will be accomplished in accordance with the QA requirements established in the Contract."

In addition, for all future WPPSS Quality Class I contracts Contract Administration will include an article that states,

"The bidder shall acknowledge that all work supplied under this contract will meet the requirement of Quality Assurance Requirement Schedule which is Attachment "B" to the Special Provisions of the contract."

- Appropriate Ebasco New York Personnel will receive documented training to the revised procedures discussed above. Procedure revisions and training are scheduled for completion by March 31, 1983.

Date of Full Compliance

Based on the above discussions, the date of full compliance is scheduled for March 31, 1983.

CONTRACT 3240-213 ITEMS SPECIFIED ON
CBI DRAWINGS AS MATERIAL CLASS D

Items A1 through A10 below require quality class downgrade to WPPSS Class G with seismic analysis (except A2 and A3, which shall be seismically analyzed and fabricated to Quality Class I).

- A1. Ship ladder and platform to dome (interior). Shown on CBI Drawing 3431-401 through 416.
- A2. Construction Hatch Platforms and Ladders at Elevation 432.50' and 432.00' (Az 322° 30'). Shown on CBI Drawings 3431-437 through 439 and 441 through 448.
- A3. Monorail Outside Construction Hatch at TOS Elevation 451.00'. Shown on CBI Drawing 3431-449 through 451.
- A4. Equipment and Maintenance Hatch Monorail at Elevation 414.00'. Shown on CBI Drawing 3431-72, 73, 74.
- A5. Service Monorail at Elevation 604.07'; 593.33' and 553.83'. Shown on CBI Drawing 3431-427, 428, 430, 431, 432.
- A6. Construction Hatch Storage Rack (Az 270°). Shown on CBI Drawing 3431-78, 79.
- A7. Air Locks (Hatch surface inside vessel only). Shown on CBI Drawings 3434-100, 135, 136, 137, 140, 142, 144, 145, 147, 148, 149, 150, 159, 160, 171, 180, 181, 182, 183, 184, 200, 202, 203, 227, 230, 231, 232, 233, 234, 235, 242, 244, 245, 246, 247, 280, 281, 282, 283, 284, 285 and 286.
- A8. Polar Crane Girder and Track. Shown on CBI Drawings 3431-14 through 19.
- A9. Clip and Pad Plates. Shown on CBI Drawing 3431-88 (detail) and 300 through 339 (Locations).
- A10. Outside Platform and Stairs on Dome. Shown on CBI Drawing 3431-417 through 424.

Items B1 through B5 below require quality class downgrade to WPPSS Class G, but do not require additional inspection or seismic analysis.

- B1. Air Locks (Interior of locks and exterior hatch surfaces with respect to Containment Vessel). Shown on CBI Drawings 3431-100, 135, 136, 137, 140, 142, 144, 145, 147, 148, 149, 150, 159, 160, 171, 180, 181, 182, 183, 184, 200, 202, 203, 227, 230, 231, 232, 233, 234, 235, 242, 244, 245, 246, 247, 280, 281, 282, 283, 284, 285, 286.

CONTRACT 3240-213 ITEMS SPECIFIED ON
CBI DRAWINGS AS MATERIAL CLASS D
Page 2

- B2. Hard Points (Outside Vessel). Shown on CBI Drawing 3431-11.
- B3. Construction Aide Base Plates (Embedded). Shown on CBI Drawings 3431-7 and 89 through 96.
- B4. 14' dia. Maintenance and Equipment Hatch Locking Mechanism. Shown on CBI Drawings 3431-69, 70, 71.
- B5. Construction Hatch Lifting Lugs. Shown on CBI Drawing 1431-76.

D. E. DOBSON, Being first duly sworn, deposes and says: That he is the Project Manager, WNP-3, 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 12.2, 1982.

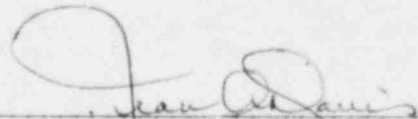


D. E. DOBSON

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 2nd day of December, 1982.



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