Washington Public Power Supply System

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January 22, 1982
GO-1-82-0032

Nuclear Regulatory Commission
Region V
1450 Maria Lane, Suite 210
Walnut Creek, California 94596

Attention: Mr. R. H. Faulkenberry
Chief, Reactor Construction
Projects Branch

Subject: Nuclear Projects 1 and 4
NRC Inspection WNP 1/4
Dates of Inspection November 16 through 20
Docket Nos. 50-460 and 50-513
Construction Permit Nos. CPPR-134 and 174

Reference: (1) Letter from RH Faulkenberry to DW Mazur, NRC Inspection at WNP-1/4 Site, dated December 22, 1981

Reference one (1) of the correspondence delineated the results of the November 1981 team inspection of activities authorized by NRC Construction Permits Nos. CPPR-134 and -174. Further, reference one (1) of the correspondence identified a perceived weakness within our Quality Assurance Program as set forth in Appendix A to this letter.

The perceived weakness, as identified, and the Supply System response is provided herewith as Appendix A.

Bill Rotch

D. W. Mazur
Program Manager, WNP-1/4

DWM:MER:lm

Attachments

cc: CR Bryant, BPA/399
RT Johnson, QA WNP-2/917Q
V. Stello, Director of Inspection, NRC
A. Toth, Resident NRC Inspector
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Docket No. 50-460 and 50-513
Construction Permit Nos. CPPR-134 and -174

APPENDIX A

FINDING A

As a result of the inspection conducted on November 16-20, 1981, the following significant observation was identified in your quality assurance program. Further information on this item is included in detail in paragraphs 5a-5d of IE Inspection Report Nos. 50-460/513/81-10.

A. QA Program

The Supply System's QA program for the WNP-1/4 Project is not fully described by procedure or fully implemented as currently described at this time.

This observation is reinforced by the following:

1. Description

a. The QA Requirements Manual is currently issued as an interim manual - Paragraph 5.a.(1).

b. The QA Requirements Manual is not consistent with the PSAR deviation request submitted to the NRC - Paragraph 5.a.(1).

c. The implementing Quality Assurance Instructions (QAI's) do not fully implement the PSAR deviation request or the QAR Manual - Paragraph 5.a.(2).

d. The QAI for QA personnel indoctrination and training does not reflect what is practiced - Paragraph 5.c.(4).

2. Implementation

a. Certain problems are not being brought to the attention of management, such as significant documentation problems for complete work at JA Jones - Paragraph 4.b and 9.g.

b. QA staff involvement appears to be weak - Paragraph 4.d.

c. Collateral duties assigned to QA staff have interfered with full program implementation - Paragraph 5.a.(3).

d. Surveillance inspections have been narrow in scope and there has been a lack of surveillance of critical work activities - Paragraph 5.c.(3).

e. Surveillance follow-up was not conducted per procedure - Paragraph 5.c.(3).

f. Monthly Quality Assurance data for performance evaluation has not been provided to the Corporate Quality Director as requested - Paragraph 5.c.(5).

g. QA Surveillance staff did not take timely action upon discovery of a significant drawing control problem - Paragraph 8.k.

SUPPLY SYSTEM RESPONSE

A.

The following response addresses the "significant observations" described in Appendix A of NRC Inspection Report 81-10. This response not only addresses the actions which have been taken or are planned to be taken to resolve the noted observations but also addresses WNP-1/4 management's awareness of the conditions identified.

Observation - A.1.a & b

The QA Requirements (QAR) Manual is currently issued as an interim manual.

Response

The QAR Manual is a Corporate Policy QA Program which applies to the design and construction activities for all Supply System Projects as well as Corporate Headquarters. Due to the unique site organization structures and the site specific Project PSAR committments, the QAR Manual has been written to address the basic requirements which each Project must implement. Project unique PSAR deviation committments must be addressed in the site unique Project procedures.

An interim issue of the QAR Manual was required due to organizational realignments at the corporate level which had not been fully defined and documented at the time of the NRC inspection. The importance to issue Revision 1 of the QAR (even as an interim document) was recognized by Corporate QA Management and, since the Corporate organizational realignments did not effect the overall implementation of the QA Program at the Project level, the decision was made to issue an interim QAR. The interim issue of the QAR Manual did have an isolated impact on the Project QA organization which will be discussed further in response to in A.1.c.

It was recognized during the initial preparation of the PSPs and QAIs that a high potential existed for inconsistencies between the Project Site Procedures (PSPs), Quality Assurance Instructions (QAIs), PSAR Deviation and the QAR Manual due to the parallel development effort which was going on for these documents. As a result, a special consistency review, noted in paragraph 5.a.(2) of the NRC inspection report, was requested by the Project QA Manager to be performed by Corporate QA on the Project specific documents.

Emphasis has continuously been placed on ensuring consistent translation of QAR and PSAR Deviation committments into the PSPs and QAIs.

A special review of the QAR Revision 0 and PSAR Deviation No. 17.1-6 was conducted by WNP 1/4 Project QA to identify areas of possible inconsistencies. The results of this review were provided to Corporate QA for inclusion in the QAR Manual as appropriate. In addition, the results of the review were provided to the appropriate WNP 1/4 Supply System Project site staff responsible for preparation of the PSPs.

Each of the Supply System Project organizations were responsible for ensuring that their respective PSPs reflected not only the requirements of the QAR but also unique PSAR Deviation requirements. It was required that, when an organization identified a commitment in the PSAR Deviation (Project specific) which was not included in the QAR, the PSAR Deviation commitment must be incorporated into the PSP or QAI, as appropriate, to provide consistent implementation of the PSAR Deviation commitments and QAR Manual requirements.

Although the Project specific titles specified in the WNP-1/4 PSAR Deviations are not reflected in the QAR Manual, generic titles have been used in the QAR to identify organization responsibilities reflected in the PSAR Deviation. The Project site specific responsibilities of the PSAR Deviation have been translated to the PSPs which are the Project's implementing procedures for both the PSAR and the QAR Manual.

When Revision 2 of the QAR Manual is issued, a comparative review of the PSAR Deviation and PSP vs. the QAR will be conducted to identify any required organizational changes to the PSAR Deviation/PSPs. Based on the coordination which has existed between the Corporate and Project QA organizations during the development and issuance of the QAR Manual and past Project actions taken to identify inconsistencies, it is expected that minimal changes will be required to the Project documents. All required changes will be completed within 30 days after issuance of Revision 2 of the QAR Manual. It is currently expected that Revision 2 will be issued by March 1, 1982.

Observation A.1.c

The implementing Quality Assurance Instructions (QAI's) do not fully implement the PSAR deviation request or the QAR Manual.

Response

As was previously indicated, parallel development efforts were being performed during the development of Corporate and Project documents (including Project and Corporate QAIs). After initial issue, consistency reviews were conducted and steps taken to revise the Project QAIs, when appropriate, to be consistent with the QAR Manual, Corporate QAIs and the PSAR Deviation. In certain cases, such as QAI-1/4-4-1 "Procurement Document Review", a conscious management decision was made to defer revision of certain Project QAIs which would not be used in the near term due to lack of activity in that area, thus allowing for more effective utilization of manpower in the more critical areas.

QAI-1/4-4-1 was revised to reflect the QAR Manual requirements and was reissued on January 21, 1982.

Shortly after issuance of QAR-10 "Inspection" Revision 1, discussions were conducted with Corporate QA by the PQAM regarding the intent and methodology of implementing Type I and Type II surveillances.

It was agreed that the Corporate QAI 10-2 "Quality Assurance Surveillance Program" would be revised to reflect what was intended to be implemented by the Project to satisfy the Type I and Type II surveillances.

This Corporate QAI has been issued and the basic elements have been included in Revision 3 of QAI 1/4-10-2 "Site Surveillance of Design/Construction". A documented training session for all Project QAEs has been conducted on the revised QAI. In addition to the training lecture, handout material was provided to further emphasis the concept to be implemented for surveillances as described by this QAI.

The conditions noted in Paragraph 5.a.(2) of the inspection report which related to inconsistencies in QAI-1/4-18-1, Revision 1 "Project Quality Assurance Audits" had previously been identified by Project QA. Revisions to this QAI were in the process of being completed at the time of the inspection. Revision 2 of the QAI was issued on December 18, 1981 which resolved the inconsistencies identified by Project QA and the inspector. Site training was conducted on the revised QAI.

As with the situation noted above, the inconsistencies noted in Corporate QAI-18-2, Revision 0 had been previously identified by the Corporate QA organization and were in the process of being revised. The noted requirement has been documented in Revision 1 of QAI-18-2.

Relative to the implementation of QAI-1/4-2-1, "Indoctrination and Training" which references Corporate QAI-2-1, Revision 0, it was recognized by the Project QA Manager, upon issuance of Corporate QAI-2-1, Revision 0 (once again in parallel with QAI-1/4-2-1) that the Corporate QAI was not appropriate for Project use. However, since the Supply System Project organization is also required to comply with the QAR Manual requirements for training, PSP 1.4 was written to provide this compliance to the QAR.

After discussion with Corporate QA regarding the appropriateness of QAI-2-1 Revision 0 for Project site activities, the Project QA Manager elected to implement PSP 1.4 until a revision to QAI-2-1, Revision 0 could be completed.

QAI-2-1, Revision 1 has subsequently been issued and will be implemented in conjunction with PSP 1.4 for Project site unique training requirements.

Based on the consistency reviews which have been conducted in the past and the Project awareness and activities in process to correct inconsistencies identified during the inspection, it is considered that any further efforts to ensure consistency, (baring further significant reorganizations as was experienced in late 1980 and early 1981) will be limited to specifically identified changes in the QAR Manual. It is currently anticipated that this effort will be minimal.

Observation A.2.a

Certain problems are not being brought to the attention of management, such as significant documentation problems for completed work at JA Jones.

Response

With respect to the specific instance related to the JA Jones documentation problems, Bechtel QA and QC management had notified the Supply System Project QA Manager of the condition shortly after issuance of CARs 20 and 21 by JA Jones. After discussion with the Bechtel personnel, the Project QA Manager concluded that this problem was being adequately handled and resolved by Bechtel. Therefore, further day to day involvement by Supply System Management or QA Engineers was not appropriate. Further statusing of this item is provided by Bechtel during the monthly Project Review.

Lessons Learned information from WNP-2 has been provided to the site contractors for use and information subsequent to NRC Inspection 81-10.

Part B of the Supply Systems response to NRC Inspection Report 81-07 describes the actions which Supply System management believes are appropriate and are intended to deal with NRC concerns to establish "thresholds" for contractor management notification to the Supply System for significant quality problems.

Although significant quality issues are discussed by Bechtel during the monthly Project Site Review, it has become apparent that inadequate visibility existed in the contractors written monthly report which would substantiate what topics were discussed. Bechtel has revised their reporting content for the Project Review to provide more visible evidence of the issues discussed.

Observation A.2.b

QA staff involvement appears to be weak.

Response

The planned and ongoing actions provided in the Supply System's response to NRC Inspection Report 81-07 (noted in A.2.a) will significantly improve the Supply System's QA staff awareness of quality issues and should provide sufficient involvement in the mainstream of activity in the overview role.

The Assistant Program Director-Construction (APD-C) is responsible for all aspects of construction which includes quality. As such, the APD-C utilizes many management tools for implementing this responsibility, one of which is weekly discussions with the Bechtel Project Constuction QC Engineer and Construction Managers. The APD-C and the PQAM also frequently discuss quality related matters and a strong team atmosphere is emerging from this working relationship.

Involvement by the Supply System QA staff has been established through interfaces between the Supply System QA Engineers, Bechtel's Lead QC Engineers, and QA Engineers as well as the Project QA Manager's interface with Bechtels' Project QA Engineer and Project Construction QC Engineer. Although these interfaces have been established, this does not restrict interface and interaction between the various levels of the Bechtel QA/QC and Supply System QA organizations. This is consistent with the Supply System's response to NRC Inspection Report 81-07.

Observation A.2.c

Collateral duties assigned to QA staff have interfered with full program implementation.

Response

Supply System 1/4 management and Corporate QA management have been fully aware of the collateral duties being performed by the Project QA staff in preparation for the ASME N Certificate survey scheduled for January, 1982. These collateral duties have been necessary due to the significant responsibility the Project site organization has in the acquisition of the ASME N Certificate. Although this effort has been extremely heavy and the performance of some of the quality functions has been less than desired, they have not been ignored. Further, the ASME effort has had a positive impact in that a strong and clearly defined QA Program has been established in order to comply with the requirements of the PSAR as the "Owner" as well as ASME III Division 1 as the N-Certificate Holder.

The heavy work load currently being experienced by the Project QA organization will be significantly reduced after successfully passing the ASME Survey and should allow for more indepth execution of site related activities, e.g., surveillances.

Observation A.2.d

Surveillance inspections have been narrow in scope and there has been lack of surveillance of critical work activities.

Response

The response to Observation A.1.c addresses the actions taken to revise QAI-1/4-10-2 and subsequent site training of QAEs which has been performed.

In addition to these actions, a memorandum has been issued to the Project QA Engineers which requires the Project QA Managers review of surveillance reports prior to close out (when no deficiencies are noted) or prior to submittal to the organization responsible for corrective action. This requirement will be continued until the PQAM is satisfied that adequate implementation of the Surveillance program has been established. This action has been taken to ensure that surveillances are being performed to the appropriate depth and to aid in recognizing potential or actual problems which may exist in the contractors' or Managing Contractors' QA Program.

In addition to conducting group training, as noted in A.1.c, individual training will be performed when it appears that an individual does not have an adequate understanding of the indepth surveillance philosophy.

Observation A.2.e

Surveillance follow-up was not conducted per procedure.

Response

In addition to the actions taken in response to A.1.c., A.2.d., the interface which has been established between the Supply System's QA Engineers and Bechtel Lead QC Engineers is expected to significantly improve the correction (where possible) or documentation (as appropriate) of deficiencies identified during Supply System QA surveillances. Note, this direct interface did not exist prior to November, 1981.

As a point of clarification, although QAR-10 Revision 1 requires the surveillance report to remain open until an appropriate self closing document (e.g. NCR, QFR or equivalent document) is issued, this requirement is not referring specifically to a Supply System self-closing document. If a contractor or Managing Contractor initiates a document equivalent to a Supply System NCR or QFR (e.g., CNCR, CAR, etc.) correction of the problem is controlled by an approved QA program. If a contractor or Managing Contractor does not correct the deficiency or issue a self-closing document by the requested date on the Surveillance Report, follow-up is performed to determine the status of corrective action. When appropriate, a QFR is issued.

In addition, a quarterly trend review is performed to identify possible weaknesses in contractors' or Managing Contractors' performance. When adverse trends are identified, appropriate corrective action is initiated.

Observation A.2.f

Monthly Quality Assurance data for performance evaluation has not been provided to the Corporate Quality Director as requested.

Response

A report was submitted to the Director, Quality Assurance for the month of December 1981. The January, 1982 report is in the process of being prepared.

Past difficulties encountered in providing the requested monthly report are attributed to the manpower intensivie effort which has been expended to accomplish a timely transition from a merge to de-merged organization, ensuring that effective interfaces have been established between the two Managing Contractors, developing effective management systems by which past and current Project quality related commitments are tracked, statused and closed out and the intensive ASME N-Certificate activities.

Observation A.2.g

QA Surveillance staff did not take timely action upon discovery of a significant drawing control problem.

Response

The instance cited is in fact an oversight on the Project QA organizations performance of adequate follow-up of the noted conditions; however, the actions which have been taken to strengthen to the Project QA Surveillance program, (identified in response to A.1.c, A.2.d, and A.2.e) should preclude this type of condition from happening in the future.