

Washington Public Power Supply System

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REGION WIDE

Mr. J. B. Martin
Regional Administrator
U.S. Nuclear Regulatory Commission
Region V
1450 Maria Lane, Suite 210
Walnut Creek, California 94596

Subject: NUCLEAR PROJECT NO. 2
NRC INSPECTION REPORT 83-14 - NOTICE OF VIOLATION - ITEM C

References: 1. Letter D.M. Sternberg to C.S. Carlisle, dated June 3, 1983
2. G02-83-592, dated July 1, 1983, C.S. Carlisle to D.M. Sternberg
3. G02-83-678, dated July 29, 1983, C.S. Carlisle to D.M. Sternberg

The Washington Public Power Supply System hereby provides a final response to the Notice of Violation (Item C) transmitted as Appendix A via the reference (1) letter.

Attachment I will fully answer NRC concerns related to the Quality Class shown on Project Engineering Directives (PED's).

If you have any questions, contact Roger Johnson, WNP-2 Project QA Manager, at (509) 377-2501, extension 2712.



G.C. Sorensen
Manager, Regulatory Programs

GLB/jdb

Attachments: 1. Final Response
2. PED List

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Attachment I

WASHINGTON PUBLIC POWER SUPPLY SYSTEM NUCLEAR PROJECT NO. 2 DOCKET NO. 50-397 LICENSE NO. CPPR-93

FINAL RESPONSE TO INSPECTION REPORT 83-14

The Supply System provides the following final response to Item C of Appendix A "Notice of Violation." For clarity, the violation is repeated followed by the appropriate response.

Notice of Violation

Criterion III of 10CFR50, Appendix B states, in part, that design control measures "shall include provisions to assure that appropriate quality standards are specified and included in design documents and that deviations from such standards are controlled." FSAR drawing M539 and Table 3.2.1 identify the piping and associated components of the floor drain system, upstream of primary containment isolation valve FDR-V-4, as Quality Class I. This invoked appropriate quality standards and related quality control inspections.

Contrary to the above, on November 11, 1982 Burns and Roe issued design change PED-215-H-G046, which improperly downgraded the quality class of (at least) pipe supports FDR-900N, 901N, 902N, and 903N from Quality Class I to Quality Class II. The design change itself appeared to be improperly classified as Quality Class II. The improper downgrading was not identified by the signatory reviewers of the design change. The installation of (at least) pipe support FDR-900N did not receive independent inspection by quality control personnel, nor was it included in the as-built program for final engineering verification.

This is a severity level IV violation (Supplement II).

Supply System Amended Response

Letter G02-83-592, C.S. Carlisle to D.M. Sternberg, dated July 1, 1983 provided our interim response in regards to corrective action taken/results achieved and action taken to prevent recurrence. The following information is provided as supplemental information to update action taken to preclude recurrence.

To ensure that the above described condition does not exist in Project Engineering Directives (PED's) issued by other disciplines of the A/E, the Project has developed a sampling plan by which a 95% confidence level can be established that this condition does not exist in other disciplines.

The sampling plan to provide a 95% confidence level that less than 5% defects exist in the sample lot is as follows:

Sample Selection

A computer listing of all PED's issued (approximately 29,000) has been generated, and all PED's assigned a sequential number of 1 through 29,000. Then, a random computer listing of numbers was generated. Utilizing the list of random numbers, select the PED assigned the sequence number which corresponds to the random number. This selection was broken down into a sample size for Quality Class I (QCI) and Quality Class II (QCII) PED's.

- Quality Class I PED's were reviewed to assure the appropriate review/check had been performed prior to being approved and issued.
- Quality Class II PED's were reviewed to assure that they had been assigned the correct Quality Class.

Corrective Action

Sixty (60) Quality Class I PED's were randomly selected and re-evaluated by suitably qualified engineers, who had no prior involvement with the PED's, to determine if the PED's were technically adequate and if they received a review prior to issuance. All 60 PED's were determined to be technically adequate and that the Group Supervisor signature, does, in fact, constitute the "review approval" as prescribed by WNP-2-017. No further sampling was deemed necessary.

Sixty (60) Quality Class II PED's were randomly selected and the applicable baseline drawing reviewed to verify that the proper quality classification was specified. From the initial sample of (60) Quality Class II PED's, four (4) Electrical PED's were identified as being improperly classified. The four (4) PED's are all associated with non-essential and non-safety related cable and specify cable/conduit routing and cable terminations. Electrical Drawings referenced in the PED's require that the non-safety related, non-essential, conduit installation or cable termination be performed in accordance with Quality Class I work procedures. Therefore, as prescribed by WNP-2-017, the PED's should have been classified Quality Class I and II, not just II.

As a result of the four (4) observations in the initial sample, it was deemed appropriate to pursue the matter further. Although it could be argued that the above noted observations do not constitute failures since they have been confirmed as being non-safety related and having no impact on actual installation, it was decided to take a more conservative approach and expand the sample. Three hundred and eleven (311) Quality Class II PED's were reviewed.

A total of twenty (20) PED's, eighteen (18) Electrical and two (2) Civil, were determined to have the improper quality class designation on the PED lead sheet. These PED's are listed on Attachment II.

Thirteen (13) out of fourteen (14) Electrical PED's observed in the expanded sample exhibited the same characteristics as did the four (4) in the initial sample of sixty (60); i.e., non-essential, non-safety related cables requiring installation or termination in accordance with Quality Class I work procedures. The PED's also should have been classified as Quality Class I and II on the PED lead sheets. The other one (1) Electrical PED was issued for a "drawing change only", but related to Quality Class I safety-related cable and, therefore, the PED lead sheet should have specified Quality Class I.

One (1) of the two (2) Civil PED's is related to work on a non-essential, non-safety related component (ladder). However, as in all but one (1) of the Electrical PED observations noted above, the applicable baseline drawing requires that installation be accomplished in accordance with Quality Class I work procedures. The other Civil PED is for core drilling in a Quality Class I structure. This core drilling is required by the applicable baseline drawing to be accomplished in accordance with Quality Class I work procedures. Therefore, the PED lead sheet should have specified Quality Class I.

In each of the Electrical and Civil observations identified above, the PED technical direction did not revise any of the applicable requirements pertaining to quality. Therefore, since the PED must be utilized in conjunction with the applicable drawings it modifies, there was no impact on construction quality.

In summary, of the twenty (20) Quality Class II PED's that had the quality class improperly identified on the PED lead sheet, eighteen (18) were associated with non-essential, non-safety related (QC-II) components that are routed, terminated or installed in designated Quality Class I areas. Further, the applicable baseline drawings referenced in the PED's specify what portion of the work must be accomplished in accordance with Quality Class I or Quality Class II work procedures. Since these PED's did not revise any of the quality requirements specified on the applicable drawings, they had no impact on the specified construction quality requirements. The remaining two (2) PED's were associated with Quality Class I components or structures. One (1) PED was associated with "drawing change only" to reflect actual cable routing which was previously approved by Engineering. The other PED was associated with core drilling in a class I structure in the Make-Up Water Pump house. The core drilling was required to be performed in accordance with Class I work procedures as prescribed by the baseline drawing referenced in the PED.

Having identified these twenty (20) Quality Class II PED's that were improperly classified per the requirements of WNP-2-017, the Supply System cannot rigorously comply with the 95% confidence criteria that less than 5% of the Quality Class II PED's were improperly classified with respect to quality class, as originally intended. However, based upon the results of the PED evaluation program, summarized above, which indicates that there was no impact on the specified construction requirements, the Supply System: (1) does not believe that a significant problem warranting further investigation exists; (2) believes that design control has been maintained; and (3) believes that the problem identified with regard to the improper downgrading of some Quality Class I supports was an isolated occurrence.

The following PED's have been issued to reclassify the supports improperly downgraded: 215-H-N178, 215-H-N182, 215-H-N390, 215-H-N510, 215-H-N604, 215-H-N962, 215-H-N971, 215-H-P742.

Action Taken to Prevent Recurrence

A letter to all engineers has been issued identifying the problem regarding the improper quality classification identified on PED's and directs them to take the necessary action to eliminate these administrative errors and assure full compliance to the PED procedure, WNP-2-017.

ATTACHMENT II

PED'S IMPROPERLY CLASSIFIED AS QUALITY CLASS II

1. 216-E-0223
2. 218-E-0572
3. 218-E-1329 X
4. 218-E-2160 X
5. 218-E-2165
6. 218-E-2250
7. 218-E-2821
8. 218-E-3127
9. 218-CS-3610
10. 218-E-3620
11. W218-E-3682
12. 218-E-4422
13. 218-E-5107
14. W218-E-5135 X
15. 218-E-A103
16. 218-E-A127
17. 218-E-A360
18. 218-E-A781
19. 218-E-A902 X
20. 215-CS-P178

X = Identified on Original Sample of Sixty (60)