

Washington Public Power Supply System

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Docket 50-397

September 15, 1983

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REGION V

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
10CFR50.55(e) REPORTABLE CONDITION #175
WBG RADIOGRAPHS

Reference: Letter G02-82-727, dated September 1, 1982, R.G. Matlock
to R.H. Engelken.

The referenced letter transmitted our final report on the subject 10CFR 50.55(e) issue. Subsequent to that report, additional concerns were identified resulting in our commitment as noted in NRC Inspection Report 50-397/83-22 to perform additional film quality reviews. These reviews are now complete. The results are shown in Attachment 1. As noted in the attachment, the Supply System is committing to re-radiographing two welds no later than the first refueling outage due to these welds presently being inaccessible.

If you have any questions, contact Roger Johnson at (509) 377-2501, extension 2712.


C. S. Carlisle
Program Director, WNP-2

RTJ/kd

Attachment: As stated

cc: W.S. Chin, BPA
N.D. Lewis, EFSEC
A. Toth, NRC Resident Inspector
Docuemnt Control Desk, NRC

ATTACHMENT 1

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT NO. 2
DOCKET NO. 50-397
LICENSE NO. CPPR-93
10CFR50.55(e) CONDITION #175
WBG RADIOGRAPHS

FINAL REPORT

Introduction

The Supply System's final report on reverification of WBG/Bovee Crail radiographs dated September 1, 1982, described the program utilized for review of the radiographs representing 2690 welds made by the previous mechanical contractor.

As described in the final report, the review program consisted of two (2) phases. During Phase 1, radiographs representing 1373 welds were interpreted for film quality, technique and weld quality and so documented on radiographic review sheets. The data generated during Phase 1 of the review was analyzed and a justification was presented to modify the review program for evaluating film quality and technique. It was decided that minor film quality deviations need not be documented for the remaining 1317 welds requiring review. The Phase 2 review was performed under these guidelines.

During May of 1983, WNP-2 project management elected to perform the review necessary for documenting minor film quality deviations of the radiographs representing the 1317 welds of Phase 2. This report describes that review.

Description of Review Program

All of the original radiographs for the 1317 welds in Phase 2 were reviewed for minor film quality deviations and documented on the original Phase 2 radiographic review sheets. Radiographs which were determined to have density and/or geometric unsharpness deviation: exceeding ASME code requirements were reported on NCR's and dispositioned.

Results of the Review

The results of the review are summarized in Table No. 1. This data shows that 105 welds were rejected for minor film quality deviations. Twelve of these welds had been completely cut out because of isometric drawing revisions. Seventy-four (74) have been reshot and accepted without the need for weld repairs. Seventeen (17) welds are all ASME III/3 which only requires surface NDE. All 17 welds have successfully passed the code required MT/PT examination. The remaining two are awaiting reshooting pending access to perform the required radiography.

The two welds (3C/G 213 C 18 R-1 and BC/G 212 B18 R-1) which have not been re-radiographed are located on a flued-head assembly where total wall thickness prohibits double-wall radiography although it has been attempted several times. In order to perform single-wall radiography, it would be necessary to disassemble valve MS-V-22B which is essential to ongoing system testing. Existing radiographs taken in 12/77 for weld C-18 and B-18 exhibit a minimum density reading in the weld area of 1.90 and 2.00, respectively. For weld B-18 the -15% density factor is the only cause for rejection. Based on experience factors from both Phase I and Phase II, where no additional weld defects have been discovered from re-radiographing 273 welds, it is safe to assume no weld defects exist in these two welds. The Supply System commits to re-radiographing these two welds at the first available opportunity, but not later than the first refueling outage. It is on this basis this final report is submitted.

Summary and Conclusions

The original intent of the radiographic reverification program was to support the project quality reverification effort by providing assurance that the radiographic examinations of field welds in the piping systems installed by the previous mechanical contractor were satisfactory. The action taken described herein to complete this program provides this assurance.

8/30/83

REVERIFICATION OF RADIOGRAPHS

	<u>Number of Welds</u>				
	<u>PHASE 1</u>	<u>PHASE 2</u>	<u>*</u>	<u>TOTAL</u>	<u>%</u>
Welds Reviewed	1373	1317	1317	2690	100
Rejected Film Quality	243	3	105	352	13.10
Rejected Weld Quality	65	16	0	81	3.0
Accepted Welds	1065	1298	1212	2257	83.90
Accepted Reshots (Film Quality)	196	3	74 ⁽²⁾	273	
Remaining Reshots (Film Quality)	0	0	2 ⁽²⁾	2	
Cutouts/Deletions (Film Quality) ⁽¹⁾	47	0	12 ⁽²⁾	59	

NOTES: (1) Cutout of system by WBG/Bechtel can't be reshot.

(2) These items total 88 welds. The remaining 17 welds have been accepted on the basis of a surface examination, either MT or PT, as allowed by ASME III, Class 3 code requirements.

(*) Supplement to Phase 2 Reverification

Table No. 1