U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-528/82-17
50-529/82-08
50-530/82-08

Docket No. 50-528, 50-529, 50-530 License No. CPPR-141,-142,-143 Safeguards Group _____

Licensee: Arizona Public Service Company

P. O. Box 21666

Phoenix, Arizona 85036

Facility Name: Palo Verde Nuclear Generating Station - Units 1, 2, and 3

Inspection at: Palo Verde Construction Site, Wintersburg, Arizona

Inspection conducted: May 11-14, 1982

Inspectors: J. H. Eckhardt, Reactor Inspector — 7/8/82 Date Signed

_____ — _____ Date Signed

Approved by: J. H. Eckhardt, Acting Chief, Reactor Projects Section 1 — 7/8/82 Date Signed

Summary:

Inspection on May 11-14, 1982 (Report Nos. 50-528/82-17, 50-529/82-08, 50-530/82-08)

Areas Inspected: Routine, unannounced inspection by a regional based inspector of activities associated with Unit 2 and 3 structural steel welding, Unit 2 and 3 pipe welding, weld filler material control, and the program for inspection of piping prior to insulating. The inspection involved 22 inspector hours on-site by one NRC inspector.

Results: No deviations or items of noncompliance were identified.

DETAILS

1. Persons Contacted

   a. Arizona Public Service Company (APS)

   *E. E. Van Brunt, Jr., Vice President, Nuclear Projects Management
   *J. A. Roedel, Corporate QA Manager
   D. B. Fasnacht, Nuclear Construction Manager
   *A. Carter Rogers, Nuclear Engineering Manager
   *W. E. Ide, Site QA Supervisor
   *B. S. Kaplan, Quality Systems Supervisor
   *D. E. Fowler, Supervising Engineer
   L. Souza, QA Engineer
   P. J. Moore, QA Engineer

   b. Bechtel Power Corporation (Bechtel)

   S. M. Nickell, Project Superintendent
   D. R. Hawkinson, Project QA Supervisor
   *R. M. Grant, Project QC Engineer
   J. Johnson, Unit 3 Field Lead Welding Engineer
   L. Oscarson, Unit 2 Field Lead Welding Engineer

   *Denotes those attending exit meeting.

2. Structural Steel Welding (Units 2 and 3)

   Structural steel welding activities were examined to ascertain compliance with applicable Bechtel structural steel construction specifications, work plan and QC inspection procedures, and AWS Structural Welding Code D.1.1. The following activities were observed.

   a. Unit 2

      (1) In process welding of stiffeners on columns in containment. Drawing 13-C-ZCS-535(14).

      (2) In process welding of pipe support 13-SG-174-H00U in containment.

      (3) In process welding of pipe support 13-CH-499-H00A(1) in auxiliary building. Drawing 13-CH-499-H00A(1).

      (4) In process welding of pipe support 13-CH-003-H057(1) in auxiliary building.

(5) In process welding of equipment framing EC-HAA-Z04 in main steam support structure. Drawing 13-C-ZCS-706(2).

b. Unit 3

(1) In process welding of shim plate for pipe support 13-SI-100-H006 in auxiliary building.

(2) Completed welds for pipe support 13-SI-100-H007.

(3) Completed welds for pipe support 13-SI-307-H008.

In addition, the inspector reviewed the field welding checklists and filler metal withdrawal forms for the above in process welds. All welding was performed to weld procedure P1-A-LH (Structural) as required. Also, the welder qualification records for the welders performing the above welds were reviewed.

No deviations or items of noncompliance were identified.

3. Pipe Welding (Units 2 and 3)

The following pipe welding activities were examined to ascertain compliance with applicable Bechtel construction specifications, work plan and QC inspection procedures, and ASME Section III Code requirements:

a. Unit 2

(1) Weld W00E on 1-inch pipe SI-E-202-CCBA. Final passes were in progress on this weld.

(2) Weld W00B on 1-inch pipe RC-N-116-CCBA. This weld was complete.

(3) Weld W018 repair R-1 on 24-inch pipe SG-E-002-DLBB. An indication in the original weld was ground out (through wall cavity) for repair.

(4) Weld FW 303 on 12-inch pipe SG-059-DLBB was fitup and tacked. QC inspection for fitup and cleanliness had not yet been performed.

(5) Welds FW 300 and FW 301 on 12-inch pipe SG-070-DLBB. These welds were fitup and tacked, and QC was inspecting for fitup and cleanliness.

(6) Weld FW P00(C) on 1-inch pipe RC-122-CCBA. This weld was fitup and tacked, and QC was inspecting for fitup and cleanliness.

b. Unit 3

(1) Weld W001 repair R-1 on 16-inch pipe RC-B-068-BCAA. A linear indication in the original weld had been ground out. Quality control had inspected the grind out and released it for repair welding.

(2) Weld W020 on 20-inch pipe EW-B-054-HBCB. The root for this weld was complete and the next pass was in progress. The inside of this weld was accessible and therefore was also visually examined.

(3) Weld W005 on 10-inch pipe SI-A-078-FCBA. The final passes for this weld were in progress.

(4) Weld W007 on 18-inch pipe SI-B-194-GCBC. This weld was fitup and tacked, and QC inspector and ANI were inspecting fitup and cleanliness.

(5) Weld W012 on 12-inch pipe SI-B-072-FCBA. This weld was being cut out for repair due to mismatch.

The inspector reviewed the field welding checklists and filler metal withdrawal forms for the above in process welds. Also, the welder qualification records for welders performing the above welds were reviewed.

No deviations or items of noncompliance were identified.

4. Welding Material Control

The inspector examined the activities of control, issue, return and storage of weld filler materials for compliance with Bechtel procedures. These activities were inspected in rod room numbers 4 and 6 serving Unit 2 and rod room numbers 13 and 15 serving Unit 3. The holding ovens were calibrated and operating within the required temperature range. All filler material located in holding ovens and in opened containers were correctly identified.

No deviations or items of noncompliance were identified.

5. Inspection of Piping Prior to Insulating

The inspector reviewed the licensee's program for inspection of piping prior to insulating to ensure that adequate controls exist so that piping is clean and free of detrimental surface defects when insulated.

The following procedures were reviewed to determine the scope of this program:

a. Bechtel WPP/QCI-204.0, "Piping Systems Release for Insulation"

b. Bechtel WPP/QCI-202.3, "Piping Systems Final Inspection"

c. Bechtel Welding Standard ED-1, "Elimination of Defects"

d. Bechtel Procedure No. 16, "Field Procedure for Cleaning External Surfaces of Stainless Steel Piping"

e. Bechtel WPP/QCI-101.0, "Welding Control"

The basic program requires that the final piping inspection be performed within 3 working days of the start of insulating; and if insulating does not start within 3 working days, then reinspection be performed. The inspector considers this 3 day requirement to be adequate to ensure that cleanliness problems or surface defects do not occur between the time of inspection and insulating of the piping.

WPP/QCI-202.3 and Appendix I of WPP/QCI-204.0 require that checks for arc strikes be made per ED-1. Paragraph 4.3 of ED-1 and also paragraph 5.16 of WPP/QCI-101.0 allow arc strikes which are free of cracks and do not infringe upon minimum wall thickness to be acceptable as is. The procedure requires that such accepted areas shall be identified by placing the QCEs stamp number adjacent to the area. The inspector questioned this practice and requested that the licensee provide further justification for accepting arc strikes of this type. This is considered an unresolved item and will be further pursued during a future inspection (50-528/82-17/01).

6. Exit Meeting

On May 14, 1982, the inspector met with the APS and Bechtel representatives identified in paragraph 1. The inspector summarized the scope of the inspection activities and reviewed the inspection findings as described in this report.