

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-528/82-01
Docket No. 50-528 License No. CPPR-141 Safeguards Group _____
Licensee: Arizona Public Service Company
P. O. Box 21666
Phoenix, Arizona 85036

Facility Name: Palo Verde Nuclear Generating Station - Unit 1

Inspection at: Palo Verde Site, Wintersburg, Arizona

Inspection conducted: January 4-24, 1982

Inspector: *G. Fiorelli* February 9, 1982
G. Fiorelli, Senior Resident Inspector Date Signed

Approved by: *G. Zwetzig* February 9, 1982
G. Zwetzig, Chief, Reactor Projects Section 1 Date Signed

Summary:

Inspection on January 4-29, 1981 (Report No. 50-528/82-01)

Areas Inspected: Routine, unannounced resident inspection of activities associated with startup testing, installation of plant systems, and quality assurance. The inspection involved 136 inspector hours on-site by the resident inspector.

Results: No items of noncompliance or deviations were identified.

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DETAILS

1. Persons Contacted

a. Arizona Public Service Company (APS)

F. W. Hartley, Nuclear Operations Manager
W. B. McLane, Startup Manager
C. N. Russo, Operations Quality Assurance (QA) Manager
T. L. Cotton, Engineering and Technical Services Manager
G. Pankonin, APS Senior Construction QA Engineer
J. Behm, Senior Quality Analyst
J. Solakiewicz, Quality Assurance Engineer
W. Craig, Quality Assurance Engineer

b. Bechtel Corporation

L. C. Putnam, Project Startup Engineer
T. Quiggle, Engineering Group Supervisor
M. Railey, Startup Engineer
T. Aversano, Startup Quality Engineer

2. Startup Testing Program

a. Prerequisite Testing Administrative Controls

The administrative controls governing the prerequisite testing program for which Bechtel has responsibility have essentially been developed. Twenty-three of the twenty-nine procedures have been issued for implementation and the remainder are undergoing review. The Bechtel organization is now in place and functioning. Discussions with several members of that organization and requests for test related records and information indicated the prerequisite testing observed was being accomplished with approved procedures and that staff members were knowledgeable about their responsibilities. A review of turnover packages for several systems and procedures for safety-related testing in progress confirmed the work was being accomplished in accordance with procedural requirements. A written procedure is still needed, however, to control turnover of documentation to APS.

No items of noncompliance or deviations were identified.

b. Hydrostatic Testing of High Pressure Safety Inspection (HPSI)

The inspector observed a portion of the hydrostatic testing of one of the two HPSI pumps. Approved procedures were used for the test. Controls such as test pressure, water quality, test

boundaries, test witnessing, and sign off had been defined. The test was successful and the supporting documentation was consistent with that determination.

No items of noncompliance or deviations were identified.

c. Flushing of Portions of the Chemical and Volume Control System (CVCS)

The first major system to be flushed was the makeup tank, pumps, and the makeup supply lines. The flushing was done using an approved procedure. Discussions with personnel directing the test confirmed their knowledge of test requirements. A review of test records confirmed water quality controls were maintained. Signatures attesting to the cleanliness requirements were required after each flushing segment of the procedure.

No items of noncompliance or deviations were identified.

d. Preoperational Testing Program

APS has completed defining administrative control requirements as a result of the recent change in startup testing program responsibilities. Except for three, the needed procedures have been written and issued. The remaining procedures are in final draft or in the review and approval process. A review of these procedures indicated a need to strengthen, clarify, or expand certain aspects. Comments based on the inspector's review were discussed with APS staff members in the January 28, 1981 exit meeting.

No items of noncompliance or deviations were identified.

3. Quality Assurance (QA)

A review of startup testing surveillance confirmed that the APS QA staff had monitored several startup activities during the month. Reports documenting their findings had been written and distributed to organizational representatives having responsibility for follow-up action and review. The monitoring had been conducted by individuals qualified in accordance with APS procedures and was consistent with the schedule of monitoring activities.

Administrative control procedures have been written which document the types of activities that will be monitored as well as the correction process for resolving identified problems. One activity noted by the inspector was a follow-up by an APS QA staff member of a previously identified problem.

It was noted from the list of outstanding items remaining to be corrected that several were identified more than three months ago.

This was brought to the attention of the APS staff in the January 28, 1982 exit meeting.

No items of noncompliance or deviations were identified.

4. Plant Tours

Several plant tours were conducted by the inspector. On occasion, the inspector was accompanied by an APS QA engineer. Plant conditions did not reveal any significant problems. There was evidence of an intensified effort to maintain proper housekeeping in some areas, while others had deteriorated. One such area was the open vessel area which was cleaned up immediately after bringing it to the attention of APS.

Protection of installed equipment, fire protection, and piping closures appeared consistent with the status of construction. Protection of unconnected cable ends appeared proper. No construction work on systems turned over to the startup organization was observed. On one tour, the inspector observed the use of small markers for jurisdictional purposes. The procedure had not yet been upgraded to identify the use of the observed colored markers. This condition had also been noted by APS QA and was being resolved by APS and Bechtel.

No items of noncompliance or deviations were identified.

5. Verification of Safety Injection System (SIS) Installation

The inspection of the SIS was continued during the month. A walkdown of accessible train B major piping system components as well as an inspection of related control room instrumentation and equipment controls did not reveal any deviations from current drawings. These drawings, however, reflect design changes which are not shown on P&IDs in the FSAR. A submittal of upgraded drawings to the NRC will be made by APS. This was confirmed in the exit meeting of January 8, 1982.

No items of noncompliance or deviations were identified.

6. TMI Item II.G.1 - Emergency Power for Pressurizer Equipment

A review of the plant drawings confirmed that pressurizer level instrumentation is powered from 120 V AC class 1E instrument buses E-PNA-D25 and E-PNB-D26 and that these buses are normally powered through inverters from class 1E batteries. The battery chargers are powered from offsite power and from diesel generators in event of a loss of power.

Two channels of pressurizer level indication and one channel of level recording were confirmed to be located in the control room. These channels are shown as class 1E instrumentation on plant design documents.

The plant design does not include pressurizer power operated relief valves.

The findings of this review are considered to be consistent with the provisions of Section II.G.1 of NUREG 0737.

No items of noncompliance or deviations were identified.

7. Exit Meeting

Exit meetings were conducted on January 8, 1982 and January 28, 1982. Topics discussed at the January 28, 1982 meeting attended by Messrs. Andognini, Van Brunt, Petersen, and members of their staffs emphasized expediting completion of Bechtel startup administrative control procedures, enforcing implementing procedures dealing with maintenance on systems turned over to Bechtel startup, submitting updated P&IDs to the NRC, assuring only completed systems are released to APS operations, and assuring test procedure formats conform to the guidance contained in Regulatory Guide 1.68.

Topics discussed during the January 28, 1982 exit meeting attended by Mr. W. Hartley and his staff included the inspector's comments on preoperational testing administrative controls, more timely resolution of identified problems, and improving communications among startup testing disciplines.

Responses from the applicant were positive and indicated genuine interest in resolving the items presented.