

U. S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT

REGION V

Report No. 50-528/81-10

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: June 9-11 and July 6-10, 1981

Inspectors: Tolbert Young Jr. for 7/24/81  
P. H. Johnson, Reactor Inspector Date Signed

Date Signed

Date Signed

7/24/81

Date Signed

Approved By: Tolbert Young, Jr.  
Acting Chief, Reactor Operations  
Projects Section 2

Summary:

Inspection on June 9-11 and July 6-10, 1981 (Report No: 50-528/81-10)

Areas Inspected: Routine, announced inspection by a regional based inspector to conduct initial review of the operational QA program and administrative controls associated with the preoperational test program. The inspection involved 52 inspector-hours onsite by one NRC inspector.

Results: No deviations or items of noncompliance were identified.

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RV Form 219 (2)



## DETAILS

### 1. Persons Contacted

#### a. Arizona Public Service Company (APS)

G. C. Andognini, Vice President, Electric Operations  
\*#F. W. Hartley, Nuclear Operations Manager  
\* J. A. Roedel, Corporate Quality Assurance Manager  
\*#C. N. Russo, Operations Quality Assurance Manager  
\* W. B. McLane, Startup Manager  
\*#T. L. Cotton, Engineering and Technical Services Manager  
#J. Vorees, Manager, Nuclear Operations Support  
#R. R. Clifford, Operations Superintendent  
\*#R. W. Kramer, Licensing Supervisor  
#W. J. Jump, Mechanical Test Group Supervisor  
D. P. Sanchez, Electrical Test Group Supervisor  
D. R. Johnson, Startup Program Control Supervisor  
#K. P. Lucien, Lead Procedures Engineer (contract employee)

The inspector also talked with other individuals including engineers and test personnel.

\*Denotes those present at the exit interview on June 11, 1981.

#Denotes those present at the exit interview on July 10, 1981.

### 2. General

This was the first inspection of the facility in connection with the preoperational test phase. The inspection included tours of the facility and discussions with facility representatives to provide an initial familiarization with the applicant's organization. The inspector also reviewed and discussed the anticipated schedule for the preoperational test program and the status of operating and preoperational test procedures.

Discussions with test personnel disclosed that no safety-related systems had been turned over for testing. Turnover of electrical power distribution systems was to begin shortly after the inspection, and was expected to be essentially complete by the end of July.

### 3. Preoperational Testing Quality Assurance

The inspector discussed the Operational Quality Assurance Program with facility representatives, noting that those portions of the QA program required to assure proper conduct of preoperational testing must be implemented before quality related activities begin. Materials related to the program were obtained for review. The QA program will be examined further during future inspections.

No deviations or items of noncompliance were identified.



4. Overall Preoperational Test Program Review

The preoperational test program was examined to verify that the organization for and administrative controls over the Palo Verde test program had been developed in accordance with FSAR commitments and regulatory requirements. Areas examined included (1) definition of the test program, (2) organization, (3) test program administration, (4) document control, (5) qualification of test personnel, (6) system turnover, and (7) test authorization and scheduling.

The applicant had developed Startup Administrative Procedures to control the preoperational and startup test program. Experience with the procedures had identified a need for improvements, and a rewrite was in progress with an expected completion date of September 1981. Several areas not yet included in the Startup Administrative Procedures were scheduled to be covered in the rewrite. These included (1) the flushing program, (2) document control, (3) problem documentation and resolution, (4) system release to operations (following preoperational testing), and (5) review of test results. The revised Startup Administrative Procedures will be reviewed during a future inspection. (81-10-01)

Several specific comments on the Startup Administrative Procedures were deferred pending revision of the procedures. However, the following comments were presented for consideration during the rewrite:

- a. Procedures should ensure that the identity of persons recording test data or performing verifications in test procedures can be easily determined. (81-10-02)
- b. Post-maintenance review of work requests should be provided to determine whether the results of previously completed tests were invalidated and to require retesting when appropriate. (81-10-03)
- c. Installation of filters, blank flanges, spoolpieces, and similar devices should be controlled as temporary modifications (if not controlled by an approved procedure). (81-10-04)
- d. Criteria should be provided for determining when reverification of test conditions or prerequisites may be required following an interruption in testing. (81-10-05)
- e. Procedure 90AC-OZZ02 required the Test Director to brief test personnel before beginning a test; however, a briefing was not required for the oncoming crew following a shift change. (81-10-06)

The program for qualification of test personnel was reviewed. Examination of qualification records showed that three of twelve test personnel selected had completed the indoctrination specified in 90AC-OZZ17, "Personnel Qualification". In addition, Procedure 90AC-OZZ14, "Startup Procedure Preparation, Review, Approval, and Revision," stated that persons writing test procedures were to be qualified in accordance with 90AC-OZZ17, but the latter did not specify a qualification for procedure writers.



The inspector observed that Section 14.2.2.9.1 of the FSAR, Amendment 4, commits to 3 months of indoctrination/training (including a minimum of 1 month indoctrination on the PVNGS plant) for persons directing or supervising Phase I testing. Apparently due to an oversight, however, a similar indoctrination was not specified for persons directing or supervising testing in Phases II through IV.

The qualification program for test personnel will be reviewed further during a future inspection. (81-10-07)

No deviations or items of noncompliance were identified.

5. Exit Interview

The inspector met with APS representatives (denoted in Paragraph 1) at the close of the inspection. The inspection findings identified in Paragraphs 3 and 4 were discussed. The inspector observed that the test program was approaching a point at which the complete series of Startup Administrative Procedures should be in effect, and stated that they should be completed in a timely manner. The applicant acknowledged the inspector's concern and stated that additional attention would also be given to the qualification program for test personnel.

