

SEP 26 1984

Docket No. 50-528

Arizona Public Service Company
P. O. Box 21666
Phoenix, Arizona 85036

Attention: Mr. E. E. Van Brunt, Jr.
Vice President, Nuclear Production

Gentlemen:

Subject: NRC Inspection - Palo Verde Unit 1

This refers to the routine inspection conducted by Messrs. P. H. Johnson, D. B. Pereira, and C. Y. Shiraki of this office on May 21-25, 1984 of activities authorized by NRC Construction Permit No. CPPR-141 and to the discussion of our findings with you and members of your staff at the conclusion of the inspection.

Areas examined during this inspection are described in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspectors.

No items of noncompliance with NRC requirements were identified within the scope of this inspection.

8410050024 840926
PDR ADOCK 05000528
Q PDR

IE 01
11

SEP 26 1984

Should you have any questions concerning this inspection, we will be glad to discuss them with you.

Sincerely,

// Signed //

T. W. Bishop, Director
Division of Reactor Safety
and Projects

Enclosure:
Inspection Report
No. 50-528/84-19

cc:

J. Bynum, Plant Superintendent
W. Ide, APS QA Manager
S. Frost, APS Licensing

Ms. Jill Morrison
T. D. Shriver, ^{Quality Sys. 35m} ~~Manager, Computer QA/QC~~
C. W. Russo, ^{Manager, Corporate QA/QC}
bcc: RSB/Document Control Desk (RIDS)

Distributed by RV:

Arthur C. Gehr, Esq., Snell & Wilmer (w/enclosure)
Project Inspector (w/enclosure)
Resident Inspector (2) (w/enclosure)
Mr. Martin, RV (w/enclosure)
File Copy (w/enclosure)
Pink & Green File Copy (w/o enclosure)
Lynne Bernabei, GAP

RV/jk

P. JOHNSON

9/19/84

PEREIRA

9/19/84

MILLER

9/21/84

BISHOP

9/26/84

Kirsch K 9/24/84

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-528/84-19

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: May 21-25, 1984

Inspectors: *D.J. Willett for* 9-25-84
P. H. Johnson, Reactor Inspector Date Signed

David B. Pereira 9-25-84
D. B. Pereira, Reactor Inspector Date Signed

David B. Pereira 9-25-84
for C. Y. Shiraki, Reactor Inspector Date Signed

Approved by: *L.F. Miller* 9-25-84
L. F. Miller, Chief Date Signed
Reactor Projects Section No. 2

Summary:

Inspection on May 21-25, 1984 (Report No. 50-528/84-19)

Areas Inspected: Routine, unannounced inspection of operating staff qualifications, licensee actions related to control room human engineering discrepancies, follow-up on open items from previous inspections, and review of IE Bulletins, plus independent inspection effort. The inspection involved 111 inspector-hours onsite by three region-based NRC inspectors.

Results: No violations or deviations were identified.

8410050032 840926
PDR ADOCK 05000528
Q PDR

REPORT DETAILS

1. Persons Contacted*

D. Karner, Assistant Vice President, Nuclear
J. Bynum, Manager of Nuclear Operations
J. Allen, Operations Manager
W. Fernow, Manager, Plant Services
F. Hicks, Training Manager
J. Rowland, Nuclear Engineering
C. Russo, Manager, QA Audits
O. Zeringue, Manager, Technical Support

The inspectors also interviewed or talked with other licensee representatives, including licensed operators, engineers, training department personnel and representatives of the compliance and QA organizations.

*All persons listed attended the exit interview on May 25, 1984.

2. Licensee Actions on Previous Inspection Findings

(82-36-01, Open) Indoctrination of Plant Review Board (PRB) and Procedure Review Group (PRG) members regarding procedure reviews. The PRB Chairman stated that an indoctrination program was being prepared, and that it would be presented to all members of the PRB, PRG, and Test Results Review Group (TRRG). He said a training checklist would also be developed to provide for future indoctrination of new members of these groups.

(82-36-02, Closed) Use of the term "safety-related" for procedures. A licensee representative stated that this term was no longer being used in the procedure process. The inspector noted that this change was reflected in pertinent administrative control procedures, and that the "safety-related" stamp was not applied to recently issued procedures.

(83-15-07, Open) Comments on PRB Charter. All comments were resolved by Procedure Change Notice 01 to Procedure 70AC-0ZZ06 except for the following:

- The PRB review requirement in Section 6.5.1.6.n (review of changes to the Process Control Program, Offsite Dose Calculation Manual, and radwaste treatment systems) of the proposed TS was still not reflected in the charter.
- Section 5.5 of Procedure 70AC-0ZZ06 should be revised to more clearly define approval and distribution of PRB minutes. The Chairman stated that PRB minutes would be issued after he had approved them, and would be reviewed in a subsequent PRB meeting. The existing Section 5.5 indicated that minutes would be issued by the Chairman following review in a PRB meeting.

(83-26-01, Open) Review and approval of startup test procedures. Licensee representatives stated that startup test procedures will be reviewed and approved in accordance with a pending revision to Procedure 70AC-0ZZ02. This item remains open pending issuance of Revision 7 to this procedure.

(83-06-05, Closed) Preface for start-up QA Manual. A preface had been issued stating the purpose and objectives of the manual.

(82-06-06, Closed) Methods for evaluating the QA Program. Section 2.2.10 of the APS Operations Quality Assurance Criteria Manual, Revision 0, defined the licensee's methods for periodically evaluating the effectiveness of the QA program.

(82-06-08, 82-06-09, 82-18-03, and 83-06-03, Closed) Comments relating to Safety Audit Committee (SAC) charter and responsibilities. These items are closed since the licensee has replaced the SAC with the Nuclear Safety Group (NSG). Procedures and directives governing NSG activities and responsibilities will be examined separately as part of the regular inspection program.

(83-01-02, Closed) Training Requirements for Duty Managers. A licensee representative stated that plans had changed regarding the use of an onsite duty manager. He stated that duty managers would not be assigned, and the shift supervisors would be the senior persons onsite on backshifts.

(83-06-06, Closed) Introductory Statement for QA Department Procedures Manual. An introductory statement defining the purpose and scope of the manual and directing adherence had been issued.

(83-06-08, Closed) Reissuance of Procedure 70AC-0ZZ02. This procedure was reissued as committed, and changes to the Proposed Technical Specifications were submitted by the licensee.

(83-15-03, Closed) Comments on Procedure 40AC-9ZZ02, conduct of shift operations. The licensee addressed these comments in issuing Revision 1 to 40AC-9ZZ02, dated October 27, 1983.

(83-15-04, Closed) Comments on Procedure 70AC-0ZZ15, Procedure Review Group. These comments were resolved by the issuance of Revision 1 on July 22, 1983.

(83-15-05, Closed) Update Procedures Listing in Plant Document Register (PDR). The PDR had been updated more than once by the licensee. The inspector obtained and reviewed a PDR printout dated May 21, 1984.

(83-15-06, Closed) Issue All Administrative Control Procedures (ACs). The inspector observed that all ACs known to be needed had been issued consistent with an FSAR commitment to issue all ACs at least six months prior to anticipated fuel load date. It was noted that this did not preclude the licensee's issuing additional ACs at a later date if needed.

(82-06-07, Closed) Define Audit Interfaces. This item originated when there were three or more different groups performing audits, because of an apparent need to standardize audit documentation methods and interfaces among the various groups. The various QA audit groups were recently consolidated under one auditing manager. Documentation of audit findings had also been described in QA Department Procedure 16.

(83-15-01, Closed) Deviation: Failure to Issue Revised Procedure by committed date. The inspector verified the corrective actions set forth in the licensee's July 20, 1983 response to the Notice of Deviation; i.e., a memo was issued to reemphasize the importance of timeliness in responding to NRC commitments.

3. Operational Staffing

The applicant's operational staffing was examined against the requirements of the Palo Verde FSAR, Chapter 13 (Draft Amendment 12) and applicable industry standards. The following inspection findings resulted:

- a. The applicant's organizational structure was recently revised and is no longer consistent with the Palo Verde Nuclear Generating Station Operating Organization Chart (Figure 13.1-6 in Chapter 13 of the FSAR). Amendment 13 to the FSAR was being prepared and will clarify the new relationships among the staff personnel. Staff qualifications were examined against the FSAR requirements with the aid of a current operating organization chart supplied by the applicant. This examination showed the incumbent members of the station staff to possess the qualifications identified in the FSAR and ANSI/ANS 3.1-1978.
- b. The Operations Manager is the principal alternate to the Manager of Nuclear Operations (Plant Manager under the terminology of ANSI/ANS-3.1-1978). Reporting directly to the Operations Manager is an Operating Superintendent for each Unit who will comply with the qualification requirements for the Operations Manager in ANSI/ANS-3.1 - 1978.
- c. Examination of the qualifications of certain individuals was left open in a previous inspection report. This examination was completed for the following positions:
 - 1) Station welders (82-06-01, Closed).
 - 2) Nuclear operator; Levels I, II and III (82-06-02, Closed).
- d. The following operating staff positions in the Nuclear Technical Support Department remain to be filled. The qualifications of the individuals who will eventually fill these positions will be examined during a future inspection. (84-19-01)
 - Supervisor - Operations Engineer, Electrical/Instrumentation and Controls

- Superintendent - Computer System Operations

No violations or deviations were identified.

4. Palo Verde Control Room Design Review - Unit 1 Human Engineering Discrepancies

This inspection included an examination of the licensee's actions to resolve selected human engineering discrepancies (HEDs) associated with the Unit 1 control room. The licensee's actions were documented in a letter to NRR dated June 30, 1983.

- a. The following HED items, as discussed in the licensee's letter, were verified to have been corrected or the evaluation/justification provided appeared to be valid. The following HEDs are closed:

A-2.4	A-5.6	A-8.5
A-3.3	A-5.7	A-9.1
A-3.9	A-5.14	B-3.2
A-3.10	A-6.4	B-4.1
A-4.1	A-6.10	
A-4.3	A-6.18	
A-4.4	A-6.22	
A-4.8	A-6.35	
A-5.1	A-7.2	
A-5.3	A-7.4	

- b. The following HEDs had not been corrected:

- A-1.3 - Specular Glare on Foxboro displays: The licensee stated that no Foxboro 250 series controllers or indicators were found during the human factors review to exhibit a varying specular glare from their surfaces. Based on the inspector's observations, Foxboro 250 series controllers or indicators were found to exhibit a varying specular glare even with different lighting panel covers installed.
- A-3.13 - Inconsistent abbreviations used on alarm legends: The inspector's observations indicated that this discrepancy had not yet been corrected.
- A-5.16 - Green light intensity is used to distinguish between the normal and faulted conditions on the Electric Bus Panel on Panel B01. However, the two intensities were not discernible unless the change in intensity was actually observed. The licensee was planning to adjust the light intensities but had not yet done so.
- A-6.1 - Logic for Reactor Manual Trip: correct pairs not indicated. The licensee was to add a mimic to Panel B05 to clearly indicate the correct manual selection of reactor trip controls. This action was still pending.

No violations or deviations were identified.

5. Followup on IE Bulletins and Circulars and Information Notices

The inspection included followup on licensee actions in response to recent IE Bulletins and Circulars. Each was determined to have been forwarded to and reviewed by cognizant members of the licensee's organization. Inspection findings were as follows:

IE Bulletin 82-04, Banker Ramo Electrical Hard Epoxy Penetration Defects (Closed): Licensee review of the PVNGS design stated that no Banker Ramo electrical penetrations which use the hard epoxy module design are installed or are planned to be installed in safety-related systems. Epoxy is not used in the Licensee's Conax electrical penetrations. Feed-through tubes are used with each tube being a complete sub-assembly. Closed by licensee letter NOS 83-252 of March 2, 1983.

IE Bulletin 83-06, Nonconforming Materials supplied by Tube-Line Corporation (Closed): The licensee's letter NOLD-83-314 of November 21, 1983 identified two suppliers which furnished Tube-Line Corporation materials to the PVNGS job site for use in safety-related systems:

- . The Bingham-Willamette supplier furnished one (1) flange piece for use in the Auxiliary Feedwater System.
- . The Pullman Power supplier furnished twelve 3", 150 lb, raised face weld neck flanges for use in the Essential Cooling Water System.

The licensee's letter NOLD 84-1 of January 4, 1984 provided the licensee's final response on the identified materials. The spare flange piece has been quarantined in the PVNGS warehouse until replaced by Bingham-Willamette. APS had obtained the material test report for the Pullman Power raised face weld neck flanges, and had verified material conformance to ASME Section II, 1974 Edition 1975 Summer Addenda. For additional assurance of conformity APS will take material hardness readings and also perform chemical analysis on the Pullman Power flange material. The testing had been completed on the Pullman Power supplied flange material, which was dispositioned suitable for use "as-is".

IE Bulletin 83-08, Electric Circuit Breakers with an Undervoltage Trip Feature in use in Safety-Related Applications other than the Reactor Trip System (Closed): Licensee letter NOLD 84-126 of March 9, 1984 stated that PVNGS had reviewed the use of circuit breakers in safety-related applications and determined that except for the Reactor Trip System, there are no circuit breakers at PVNGS which contain undervoltage trip devices.

IE Circular 80-14, Radioactive Contamination of Plant Demineralized Water and Resultant Internal Contamination of Personnel (Closed): The licensee's internal memo PVNGS-KWG-M83-172 of November 3, 1983 stated that all recommendations had been resolved and all actions required for Circular 80-14 had been completed.

IE Circular 81-02, Performance of NRC licensed individuals while on duty (Closed): The licensee issued Procedure 40AC-9ZZ02, Conduct of Shift Operations, which specifies NRC licensed individuals' performance, duties and responsibilities.

IE Circular 81-04, Role of Shift Technical Advisors and importance of Licensee Event Reports (Closed): The licensee issued the following procedures to provide guidance for STAs and the processing of LERs:

Procedures 73AC-9ZZ03 - Operating Experience Review
 73AC-0ZZ19 - STA/Independent Safety Engineering Group (ISEG) Charter
 73AC-9ZZ20 - Licensee Event Report Preparation
 73IS-9ZZ01 - STA Shift Conduct

IE Circular 81-12, Inadequate Periodic Breaker Test Procedures for PWR Protection System (Closed): Licensee internal memo PVNGS-KWG-M84-237 of May 3, 1984 stated that all recommendations had been resolved and all actions required had been completed for Circular 81-12. Electrical Maintenance Surveillance Test Procedure 32ST-9SB01 was found to adequately address the concern about inadequate periodic breaker test procedures.

IE Notice 83-17, Diesel Generator Auto-Start Logic (Closed): An internal licensee memo of June 23, 1983 stated that the control logic problem was not evident in PVNGS Cooper-Bessemer supplied Emergency Diesel Generators. There is no time delay that will block the fuel oil supply for an emergency start; the emergency fuel oil solenoids will allow fuel to be supplied at any time an emergency signal interrupts the cooldown timer.

6. Exit Interview

The inspectors met with licensee representatives (denoted in paragraph 1) at the completion of the inspection. The inspection findings were discussed, as set forth in paragraphs 2 through 5 of this report.