

U.S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-528/82-06 (OPS)

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, AZ) and APS Corporate Offices (Deer Valley)

Inspection conducted: January 12-15 and February 2-5, 1982

Inspectors: *P.H. Johnson* 3/12/82
P. H. Johnson, Reactor Inspector Date Signed

J.W. Hornor 3/12/82
J. W. Hornor, Reactor Inspector (January 12-15) Date Signed

J.P. Stewart 3/12/82
for J. P. Stewart, Reactor Inspector (February 2-5) Date Signed

Approved by: *G.B. Zwetzig* 3/12/82
G. B. Zwetzig, Chief, Reactor Operations Projects Date Signed
Section 1

Summary:

Inspection on January 12-15 and February 2-5, 1982 (Report No. 50-528/82-06)

Areas Inspected: Routine, announced inspection of plant procedures, operational staffing, safety committee activities, and QA for preoperational testing; also included independent inspection effort. The inspection involved 100 inspector-hours onsite by three NRC inspectors.

Results: No deviations or items of noncompliance were identified.

DETAILS

1. Persons Contacted

- G. C. Andognini, Vice President, Electric Operations
- *#E. E. Van Brunt Jr., Vice President, Nuclear Projects Management
- #F. W. Hartley, Manager of Nuclear Operations
- #J. M. Allen, APS Nuclear Engineering Manager (SAC Chairman)
- #J. A. Roedel, Corporate Quality Assurance Manager
- *#C. N. Russo, Operations Quality Assurance Manager
- *T. L. Cotton, PVNGS Engineering and Technical Services Manager
- #R. R. Clifford, PVNGS Operations Superintendent
- *S. M. Moyers, PVNGS Maintenance Superintendent
- #W. F. Fernow, PVNGS Training Manager
- *#W. B. McLane, Startup Manager
- *#J. R. Provasoli, APS Licensing Staff Engineer
- *J. N. Tench, PVNGS Administrative Services Manager
- *#R. W. Kramer, PVNGS Licensing Supervisor
- #L. G. Papworth, PVNGS Operations Engineering Supervisor
- #F. L. Gowers, PVNGS Technical Administrative Assistant

The inspectors also talked with other individuals, including engineers, shift supervisors, QA auditors, and maintenance personnel.

*Denotes those present at the exit interview on January 15, 1982.

#Denotes those present at the exit interview on February 5, 1982.

2. Operational Staffing

The applicant's operational staffing was examined against the requirements of the Palo Verde FSAR, Chapter 13 (Draft Amendment 8) and pertinent industry standards. The following inspection findings resulted:

- a. The organizational structure was found to be in accordance with the Palo Verde Nuclear Generating Station Operating Organization Chart (Figure 13.1-6 in Chapter 13 of the FSAR).
- b. All required staff positions were filled for Palo Verde Unit 1 operation.
- c. Except for positions discussed in paragraph 2.g, Palo Verde Unit 1 staff personnel satisfied the minimum qualification requirements (except as noted in the FSAR) of ANSI/ANS 3.1-1978 for the positions listed in Section 13.1.3 of the FSAR.
- d. The Engineering and Technical Services (onsite technical support) Organization was staffed for Palo Verde Unit 1 operation in accordance with Figure 13.1-6 of the FSAR.

- e. The Quality Assurance/Quality Control Organization had been designated as indicated in Figure 13.1-6 of the FSAR.
- f. Quality Assurance/Quality Control personnel in the following positions met the minimum requirements of Regulatory guides 1.58 and 1.146, ANSI N45.2.6-1973, and ANSI N45.2.23-1978 as applicable:
 - (1) Auditors
 - (2) Lead Auditors
 - (3) Level II and III QC inspectors
 - (4) Non-destructive Test Inspection personnel
- g. Qualifications of the persons filling the following positions will be examined during future inspections:
 - (1) Station welders (82-06-01)
 - (2) Nuclear Operator, Levels I, II, and III (82-06-02)
 - (3) Radiation Protection Supervisor (82-06-03)

No noncompliance items or deviations were identified.

3. Plant Procedures

Revisions 1 and 2 of Station Manual Procedure 70AC-OZZ02, "Review and Approval of Station Procedures," were reviewed. Certain comments presented on Revision 1 had been incorporated into Revision 2 by the time of the February 2-5, site visit. Additional comments were presented on Revision 2, as follows (82-06-04):

- a. The procedure stated (Section 4.1) that any individual may recommend a revision to a procedure, but did not say how or to whom a recommendation should be submitted.
- b. A statement regarding the documentation of review and approval was listed in section 5.2.2 as an action to be performed by the document originator. This instruction should also apply to others involved in review and approval.
- c. Section 3.3 of the procedure defined documents or procedures which require review by the Operations QA Department and Plant Review Board (PRB). This was not clearly reflected in steps 5.2.4 and 5.2.7 of the Instructions section or in steps 4, 7a, and 10 of Appendix B.

- d. As written, Sections 5.2.4 through 5.2.6, Appendix A, and steps 4 through 6 of Appendix B would require a written safety evaluation for all procedures requiring PRB/QA review. A written safety evaluation is required by 10 CFR 50.59 for all changes to procedures as described in the FSAR. Performing safety evaluations for a significantly larger number of procedure revisions would add to the review requirements of the Safety Audit Committee (which must review all 50.59 safety evaluations) and could result in less attention being given to those safety evaluations which are required.
- e. Regarding temporary changes to procedures, Section 5.6.1 defined "intent" to be that expressed in the PURPOSE section of the procedure. The inspector noted that the PURPOSE section, as stated in most procedures issued to date, was too general to adequately define intent. The intent of a procedure includes not only what the procedure intends to accomplish but also the principal means by which the actions are to be accomplished.
- f. Section 5.6.4 discussed approval of temporary procedures by members of the station management staff. The procedure did not define which positions or organizational levels are considered to be members of the station management staff for the purpose of temporary procedure approval.
- g. Section 5.6.7 assigned the originator's department head the responsibility for determining whether a temporary change should become a permanent procedure revision. No provision was made for documenting this determination on the change request process record.
- h. Related comments regarding PRB review of procedures are presented in sections 5.b(2) and (5) of this report.

No noncompliance items or deviations were identified.

4. Quality Assurance for Preoperational Testing

The applicant's onsite and offsite audit programs were examined to verify their readiness to audit quality-related activities which will be conducted during the preoperational test and operations phases. Aspects examined included responsibilities and methods for establishing and conducting the audit program, certifying auditors, documenting audit findings, and initiating and verifying corrective actions. The inspection showed that effective audit programs had been established. The following comments regarding the audit programs were presented to the licensee:

- a. Although the applicant had defined activities to be audited, the overall scope of the audit program (areas of activity,

organizational groups, and principal regulatory or procedural requirements to be audited) should be more fully defined in a manner which can serve as a basis for scheduling and planning required audits (82-06-05).

- b. The inspector noted that the Operations QA Program is required to be implemented before commencing quality-related activities or at least 90 days prior to fuel loading, and stated that the applicant's QA audit schedule should provide for verifying program implementation prior to that time. The scheduling of the NRC's QA implementation inspection was discussed. The inspector stated that this could be expected to occur approximately three months before fuel loading.
- c. Section 2.0, paragraphs 2.10.2 and 2.10.3 of the Operations Quality Assurance Criteria Manual (Draft 3) discussed preparation of reports on the effectiveness of the Operations QA Program (required by 10 CFR 50, Appendix B, Criterion II). During review subsequent to the inspection, it was not clear which of the reports required by the two paragraphs (2.10.2 and 2.10.3) was intended to be the evaluation required by Criterion II. No frequency was established for the reports discussed in paragraph 2.10.2. This will be reviewed further during a future inspection (82-06-06).
- d. Audit responsibilities are assigned by proposed Technical Specifications and the FSAR to three groups within the applicant's organization. These are the Safety Audit Committee (SAC), the Corporate QA Department, and the Operations QA Department. Additional definition of audit interfaces and methods was needed among the three groups (82-06-07). For example:
 - . Since audit reports must be submitted to and reviewed by various groups in the applicant's organization, common methods of documenting and ensuring correction of problems should be developed.
 - . Procedures should establish which group(s) will perform audits for which the SAC is responsible and the methods by which the SAC will maintain cognizance of such audits.
- e. Station Manual Procedure No. 60AC-OZZ04, "Quality Audits" (Revision 1), defined the audit program to be conducted by the Operations QA Department. Section 5.18 of the Operational Quality Assurance Program (60PR-OZZ01, Revision 1) also established program requirements and responsibilities related to the audit program. The inspector commented that the program should require the audited organization to respond in writing to adverse findings identified by audits. Documentation of adverse findings was discussed above in paragraph 4.d.

No noncompliance items or deviations were identified.

5. Safety Committees

The organization and functioning of the Plant Review Board (PRB) and Safety Audit Committee (SAC) were examined. The PRB had been meeting at least weekly for more than a year, primarily to review station procedures. The SAC had its initial meeting on November 9, 1981, with another scheduled for February, 1982. Charters for the PRB and SAC were examined, along with meeting minutes, SAC member qualifications, and other related documents.

a. Safety Audit Committee

(1) The SAC Charter, which became effective on December 3, 1981, defined the purpose, responsibilities, functioning, and authority of the committee. The following comments regarding the charter were presented to the SAC Chairman (82-06-08):

- . Paragraph 6.3.1 of the charter was not clear as to whether the SAC Secretary is a member for quorum purposes.
- . Section 4.1 of the charter defined the SAC's review responsibilities. The footnote applied to items b, c, and d (regarding Technical Specifications changes and unreviewed safety questions) should clarify that, in addition to SAC review, the items must also be submitted for NRC review prior to implementation.
- . Items e, f, and h of the committee's review responsibilities were repeated as stated in the proposed Technical Specifications. These items will require additional definition in the charter or implementing procedures to define how the reviews will be accomplished; e.g., specific documents or activities which will be reviewed by the SAC to fulfill its review responsibilities.
- . The charter addressed preparation, approval, and distribution of SAC minutes, but should also require review by SAC members during a subsequent meeting.
- . Section 5.7 of the charter discussed the use of subcommittees and task forces. The inspector noted that such groups could assist the SAC by investigating, screening, summarizing or conducting preliminary reviews, but could not relieve the full committee of its assigned review responsibilities.

- . The licensee should consider including ANSI N45.2, ANSI N45.2.12, and ANSI N.45.2.23 in the references section of the charter.
- (2) The minutes of the November 9, 1981 meeting discussed telephone polling of members in certain cases. The inspector acknowledged that required reviews (e.g., license change submittals) could be accomplished in this manner if the materials being reviewed had been previously distributed to the SAC members. Such reviews should also be confirmed in a subsequent SAC meeting and recorded in committee minutes.
- (3) Section 4.d of this report discusses the need to coordinate the SAC's audit responsibilities with the Corporate and Operations QA Departments.
- (4) Resumes of the SAC members indicated that they collectively possessed expertise in all but two of the professional disciplines listed in section 16.6.5.2.1 of the proposed Technical Specifications. Arrangements should be made by the applicant to provide expertise to the SAC in these areas (metallurgy and radiochemistry) when needed (82-06-09).

b. Plant Review Board

- (1) Station Procedure 70AC-OZZ06, "Plant Review Board" (Revision 1), established and provided a charter for the PRB. Comments were presented on certain aspects of the charter as follows (82-06-10):
 - . The PRB's review responsibilities in Section 4.0 of the charter were repeated essentially as stated in the proposed Technical Specifications. Certain of the items (e.g., 4.5 and 4.7) will require additional definition (in the charter or other procedures) as to how the reviews will be accomplished; e.g., specific documents or activities which will be reviewed by the PRB to fulfill its review responsibilities.
 - . The charter stated that copies of minutes shall be forwarded to the SAC Chairman and the Vice President of Electric Operations. Other distribution (PRB members, Manager of Nuclear Operations, or others) was not specified. The charter also did not establish a time period for the distribution of meeting minutes or assign responsibility for their approval.
 - . Some sections of the PRB Charter were in need of updating to be consistent with a more recent revision

of Station Procedure No. 70AC-OZZ02, "Review and Approval of Station Procedures." A PRB Charter revision was being prepared at the time of the inspection.

- . Although the applicant was planning to use PRB subcommittees in some instances, their use was not discussed in the charter. The inspector noted that subcommittees could assist the PRB by investigating, screening, summarizing, or conducting preliminary reviews, but could not relieve the full PRB of its assigned review responsibilities:
- (2) The applicant was planning to use "out-of-session" reviews (documented by sign-off on a routing form) in certain instances, principally for procedure reviews. The PRB charter should require that if such review methods are used, the following controls will apply to ensure proper review and documentation (82-06-11):
 - . Each out-of-session review item will be reviewed during the next regular PRB meeting and documented in the minutes.
 - . Documents which are modified in the course of an out-of-session review (e.g., in response to a reviewer's comments) will be re-routed to those who have previously reviewed and concurred with the document.
 - . All available PRB members (i.e., those who would attend a meeting if called) will have an opportunity to review the document. At least a quorum of the PRB must review and signify concurrence.
 - (3) Plant Review Board minutes for most of 1981 were examined. For certain meetings the minutes did not indicate who was serving as chairman and which of the other attendees were members or guests. In two cases, a motion regarding a matter under review was made or seconded by a person indicated to be a guest at the meeting.
 - (4) Some documents reviewed by the PRB were not adequately identified in meeting minutes. For example, the revision number for most plant procedures reviewed during PRB meetings was not recorded.
 - (5) Meeting minutes indicated that the PRB frequently granted concurrence with a plant procedure subject to resolution of comments. In some cases, the comments were not

specific, such that considerable judgment or procedure rewriting would be required by the person assigned to resolve the comments. The inspector stated that when specific direction regarding the incorporation of comments cannot be given by the PRB, the revised procedure should be returned to the PRB for further review (82-06-12).

No noncompliance items or deviations were identified.

6. Independent Inspection Effort

Each site visit included a plant tour for inspector familiarization and to observe activities in progress. No noncompliance items or deviations were identified.

7. Exit Interview

The inspectors met with APS representatives (denoted in Paragraph 1) at the close of the site visits on January 15 and February 5. The inspection findings identified in paragraphs 2 through 5 were discussed.

The inspectors and the applicant discussed requirements that the Operations QA Program be implemented 90 days before fuel loading or before commencement of activities governed by the program. The inspectors stated that APS's audit program should verify implementation, and that the applicant should anticipate a QA implementation inspection by the NRC approximately three months before scheduled fuel loading date.