

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-528/82-05 (RS)  
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: February 16 and 18-19, 1982

Inspectors: *H. S. North* 4/13/82  
H. S. North, Radiation Specialist Date Signed

Approved by: *F. A. Wenslawski* 4/14/82  
F. A. Wenslawski, Chief, Reactor Radiation Protection Section Date Signed

Approved by: *H. E. Book* 4/15/82  
H. E. Book, Chief, Radiological Safety Branch Date Signed

Summary:

Inspection on March 16 and 18-19, 1982 (Report No. 50-528/82-05)  
Areas Inspected: Placement of NRC-TLDs, organization and staffing, training, facilities and equipment and instrument calibration.  
The inspection involved 6 hours on site by one inspector.  
Results: In the five areas inspected, no items of noncompliance or deviations were identified.

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## DETAILS

### 1. Persons Contacted

#### Palo Verde Nuclear Generating Station (PVNGS)

W. Hartley, Manager, Nuclear Operations  
\*T. Cotton, Manager, Engineering and Technical Services  
\*C. Russo, Manager, Operations QA  
\*W. Fernow, Manager, Training  
\*R. Kramer, Supervisor, Licensing  
\*J. McDuffee, Radiation Protection Supervisor  
\*W. Rogers, Supervising Radiation Physicist  
\*J. Schlag, Supervising Radiation Physicist  
E. Roittger, Radiation Protection Technician

#### Arizona Public Service (APS) Corporate Staff

R. Burke, Lead Joint Use Specialist  
B. Maxwell, Attorney, Contract Services Department  
L. Matteson, Engineering Supervisor, Western Division

#### State of Arizona/Arizona Radiation Regulatory Agency (ARRA)

P. Weeden, Program Manager  
S. Smith, Health Physicist  
S. Aasen, Laboratory Technician

\*Denotes attendance at the exit interview on February 19, 1982 at PVNGS.

### 2. NRC Thermoluminescent Dosimeter (TLD) Placement

On February 16 and 18, 1982, a total of 32 TLDs were placed in service at locations around the Palo Verde site. The inspector was assisted by representatives of the ARRA which is to exchange the TLD's quarterly under contract with the NRC. The TLD's were placed on a total of 27 APS poles under the terms of a Licensee Agreement between APS and the NRC. Documents describing the location of individual NRC-TLD stations have been supplied to the APS Lead Joint Use Specialist and Western Division Engineering Supervisor and to the ARRA.

3. Organization and Staffing

The level of staffing and organizational changes since the inspection of October 19-23, 1981 (50-528/81-19) were discussed. The Supervising Radiation Physicist on staff at that time has been assigned responsibility for radioactive waste for the site. The responsibilities of this position include radioactive material accountability, receipt and transfer and radioactive waste packaging and shipment. A new Supervising Radiation Physicist for Unit 1 has been designated. A resume for this individual had been prepared for inclusion in the FSAR. Two radiation protection technicians (RPT) on staff at the time of the last inspection have resigned and seven RPTs have been added to the staff. The licensee is presently recruiting for both professional (engineering) lead and ANSI 18.1 qualified RPTs. The licensee plans to employ only six entry or apprentice level RPTs, all with a minimum of an A.S. degree in radiation protection technology from an accredited college. These individuals will be assigned to the laundry during training. All other RPTs must be qualified to ANSI 18.1. Six RPTs will be assigned to each unit for radioactive waste handling and an additional two RPTs will be assigned to support the whole body counter. The licensee plans to begin RPT shift coverage of Unit 1 in December 1982. Newly hired RPT's will train at Unit 1 but routine interchange of RPT personnel between units is not planned. Qualifications of recently hired radiation protection personnel will be examined during a subsequent inspection (82-05-01).

Audits of the radiation protection group will be conducted by the Corporate Health Physicist and the operations QA organization. Internal audits by the radiation protection group are to include ALARA review of man-rem projected vs. actual exposure and an approximate 10% sample whole body counting on an unannounced, unscheduled basis. These whole body counts will be in addition to routine whole body counts, as an internal exposure verification measure for individuals who have worn respiratory protective devices.

No items of noncompliance or deviations were identified.

4. Training

Specific technical training in radiation protection has not been started. The development of training plans is not yet complete. The training organization has received the budgetary and staffing support necessary to conduct the training described by Reg. Guide 8.27, Radiation Protection Training for Personnel at Light-Water-Cooled Nuclear Power Plants. The licensee is presently conducting respiratory protection training and has completed approximately 50% of the training required to support fuel loading. In support of this training, eight RPTs received training in Quantitative Fit Testing of Respiratory Protective Apparatus Using Oil Mist Test Aerosols by Dynatech Frontier Corporation, the manufacturer of the fit test equipment. In addition, two RPTs were trained by MSA in MSA-SCBA regulator repair, maintenance and testing using MSA test equipment. The licensee plans to provide training in respiratory protective equipment bench testing using a DOP aerosol.

Radwaste personnel and mechanics attended a 32 hour rigging school in support of planned radwaste handling responsibilities.

No items of noncompliance or deviations were identified.

5. Facilities and Equipment

The licensee reported that auxiliary building construction activities will not be sufficiently advanced to permit occupancy by the radiation protection staff before the end of May 1982.

The computer based Radiation Exposure Management (REM) System had been received on site. The system will incorporate personnel exposure records, histories and medical records, survey files, the three most recent whole body counts and survey instrument calibration records. This system will produce the radiation protection related Reg. Guide 1.16 reports. The system will have supervisory field terminals available to the shift supervisor, supervising radiation physicist and in the Service Building where the whole body counter will be located. Training in operation and use of the system was scheduled to begin in March 1982.

Present schedules for the following equipment was as noted at the time of the inspection:

<u>System</u>	<u>Delivery</u>	<u>Installation Complete</u>
Radiation Monitoring System	May 15	June 15
Post Accident Sampling System	September 15	October 15

Radwaste System preoperational testing is scheduled to begin in June 1982.

No items of noncompliance or deviations were identified.

6. Instrument Calibration

To assure that the licensee was aware of the requirements for process and effluent monitor calibration the inspector discussed with licensee representatives a copy of recently issued Technical Specifications (San Onofre 2). The discussion addressed the number and type of monitors and monitoring systems requiring calibration, sampling or sample collection, channel check, channel calibration and functional tests and traceability of calibration sources. The inspector also identified and briefly discussed the requirements for Commission approval of a Process Control Program and an Offsite Dose Calculation Manual.

No items of noncompliance or deviations were identified.

6. Exit Interview

At the conclusion of the inspection on February 19, 1982 the inspector summarized the scope of the inspection for the individuals denoted in paragraph 1. The licensee was informed that no items of noncompliance or deviations had been identified.