

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report Nos. 50-528/89-26, 50-529/89-26, 50-530/89-26

Licensee: Arizona Public Service Company
P. O. Box 21666
Phoenix, Arizona 85836

Facility Name: Palo Verde Nuclear Generating Station
Units 1, 2, and 3

Inspection at: Palo Verde Site, Wintersburg, Arizona

Inspection dates: May 30 - June 2, 1989

Inspector:

R. F. Fish for
Kent M. Prendergast

6/23/89
Date Signed

Approved by:

R. F. Fish
R. F. Fish, Chief, Emergency
Preparedness Section

6/23/89
Date Signed

Summary:

Areas Inspected: Routine announced inspection of action on previous inspection findings, followup of a licensee event and operational status of the emergency preparedness program. Inspection procedures 82701, 92700, 92701 and 30703 were covered.

Results: No violations of NRC requirements were identified. Improvements in the area of emergency response training were identified and are discussed in Section 4 of this report. No weaknesses were identified.



DETAILS

1. Persons Contacted

- *J. Haynes, Vice President
- *W. Marsh, Plant Director
- *L. Papworth, Director of Site Services
- *H. Bieling, Manager, Emergency Planning and Fire Protection
- *T. Shriver, Compliance Manager
- *N. Willsey,, Emergency Planning Supervisor
- M. Pioggia, Emergency Planning Coordinator
- *T. Barsuk, Lead Site Emergency Planner

* Indicates personnel attending the exit interview

2. Action On Previous Inspection Findings (92701)

(Closed), Open Item IN-89-19, Health Physics Network. This item was examined and the licensee had received NRC Information Notice 89-19 on March 6, 1989 and has addressed the guidance contained in IN-89-19 in a memorandum dated March 9, 1989. According to the March 9, 1989 memorandum, Emergency Plan implementing procedure (EPIP) No. 11 will be changed to address activation of the HPN line in accordance with IN-89-19. In addition, procedures for HPN maintenance and service will also be changed to incorporate the guidance contained in IN-89-19. This item is considered closed.

(Closed) Unresolved Item, 89-07-07, Review interim protective measures for areas of the plant where the Public Address (PA) system or emergency sirens may be inaudible. NRC inspection Report 50-258/89-07 identified an ANPP report which discussed 27 areas, on or near the site, where enhancements or improvements to the systems used for alerting individuals of emergency events were considered necessary. Because the time frame for completion of the improvements was listed as 1991, some concerns were brought up regarding the adequacy of interim protective measures. Licensee report 240-00447-HFB/DNW, dated March 21, 1989, was prepared to address these concerns. Based upon a review of this report and discussions with the licensee, it appears the licensee has taken numerous additional steps to insure personnel are notified of emergency events and provided emergency instructions, should they be necessary. These steps included: increasing the number of pocket pagers to individuals located in some of the areas; adding numerous facilities and personnel to the emergency notification lists called by Security; and adding personnel sweeps to locate all workers under the Water Reclamation Facilities Administrative Emergency Plan. The above stated improvements appear satisfactory to insure personnel located in any of the 27 areas, are provided adequate warning and emergency instructions. This item is considered closed.



3. Follow-up of Licensee Events (92700)

On April 23, 1989 at 9:05 Mountain Standard Time (MST), Unit 1 declared an unusual event due to a failure of some communications systems. During this event the following communication systems were inoperable: the normal phone system, the auto-dialing system, and the emergency phone system. At 10:30 MST telecommunications personnel had successfully restored the necessary equipment. At 11:34 MST after functional testing, the unusual event was terminated. Licensee Special Report No. 1-SR-89-004 documented the event and also included dates and approximate times of major occurrences. Subsequent to the event, it was determined that the following systems were still available and would have been capable of providing adequate communications during an emergency: the Emergency Notification System; the Notification Alert Network; Off-site paging system; internal portable radios; cellular phones located in each unit; and security phones to local law enforcement agencies. Based on the review of this report and discussions with emergency planning personnel, the declaration of the unusual event, although conservative, appeared appropriate. The licensee had no explanation for the loss of normal communications and was unsure of what other systems might fail. The licensee is still investigating this incident to determine how to insure such problems do not reoccur.

4. Operational Status of the Emergency Preparedness Program (82701)

a. Changes to the Emergency Preparedness Program

Changes to the Emergency Plan (EP) were examined and the latest revision to the EP was noted to be Revision 8, dated September 1987. The licensee provided the required annual review of the EP and also offered documentation supporting the completion of Revision 9. Revision nine was completed and sent to Nuclear Licensing for approval and issuance. A review of Revision nine was completed by emergency planning on 12-7-88. The review was conducted to insure none of the changes decreased the effectiveness of the EP. According to Nuclear Licensing, Revision nine will be issued in the near future.

Changes to the EP implementing procedures were examined and all changes examined were noted to have been reviewed and approved in accordance with Administrative Procedure OIAC-OAP02, "Review and Approval of Nuclear Administrative and Technical Procedures". The documentation for the revised procedures also included appropriate check lists and signatures of approval by appropriate members of plant management and the Plant Review Board. The procedures were also noted to have been sent to the NRC in accordance with 10 CFR 50. As a suggestion for improvement, the Plant Director should be considered for inclusion to the approval list specified in OIAC-OAP02 since changes to the implementing procedures affect all 3 units.

There have been and continue to be changes in the licensee's organization, however these changes do not appear to decrease the effectiveness of the emergency response organization. A review of



emergency response training records indicated adequate numbers of trained individuals are available to fill all emergency response positions.

There does not appear to have been any changes to the Emergency Planning Organization since the last inspection. Presently, the licensee is interviewing for three open positions in emergency planning. When these positions are filled, the licensee is planning to expand their program to provide the capabilities for conducting the annual emergency exercise "in house" without significant reliance on contractor support. In addition, the licensee is also considering expanding their drill program to require quarterly drills to augment present training in emergency response and provide more practical training in the differing emergency positions.

No violations were identified in this program area. Licensee performance in this program area appears satisfactory with an improving trend observed.

b. Training

Records of emergency response training were examined, interviews with one shift crew were performed, and records of drills and exercises were examined to determine if the licensee has maintained an effective training program for emergency response.

Records of emergency response training for selected individuals in the Control Room, Technical Support Center, Operations Support Center, and the EOF were examined and appropriate training was conducted.

The inspector conducted an interview with one shift crew, consisting of a Shift Supervisor and a Shift Technical Advisor. The interview was performed to evaluate the individuals' knowledge of their responsibilities during an emergency and to assess their training in emergency response. The individuals demonstrated familiarity with their responsibilities during an emergency and were able to satisfactorily classify numerous hypothetical scenarios and make protective action recommendations (PARs). The individuals were also cognizant of necessary time frames for notification and PARs. During the interview the following areas were identified as areas for improvement.

- i. The time frame from when the Shift Supervisor recognizes an emergency condition to when a classification is declared, does not appear to be addressed in either the EIPs or training. Subsequent to the interview mentioned above, this area was discussed with licensee management. During this discussion, licensee management examined this issue and has committed to changing their classification procedures. The classification procedure will be changed to state that an emergency condition is to be classified as soon as possible with a goal of not exceeding 30 minutes. In addition, training will also place emphasis on the timeliness of classification.



- ii. The classification procedure could be improved by providing specific values for wind velocities at the site which would correspond to the different emergency classifications (e.g., unusual event, alert, and etc.). Presently, the only discrete value corresponding to one of the emergency classifications is for the site area emergency (SAE) classification. A SAE is required for winds above 105 miles per hour (MPH). An alert is required for winds of tornado force striking the site. However, winds from a tornado may vary in velocity from very light winds to winds of up to 300 MPH. Consequently, clear guidance as to what velocities of wind would correspond to an unusual event or an alert are not presented. Also, during the interviews it was mentioned that the readout for the meteorological instrumentation only responds to 50 MPH. Therefore, it would be necessary to send an operator out to the meteorological station for a reading above 50 MPH. This area should also be examined for improvement.

Records of training for individuals who would be responsible for performing dose assessment were also examined. Following the March 3, 1989 Unit 3 reactor trip, the licensee identified the need for further training in the area of dose assessment. The licensee has evaluated this area and established a "job performance measure" (JPM) as a means of assessing the capabilities of the radiation protection monitors (RPMs) to carry out their responsibilities for dose assessment and protective action recommendations. Training using the JPM was committed to and is required for all RPMs prior to entering mode 2 for all 3 Units. In addition, quarterly training utilizing the JPM will be required to insure individuals responsible for dose assessment remain familiar with their procedures and are adequately trained to perform this function. The JPM requires the RPMs to retrieve information from the Radiological Monitoring System and Emergency Response Facilities Data Acquisition Display System (ERFDADS) and to perform off-site dose calculations, both manually and by computer, and to recommend protective actions to the Emergency Coordinator. Training records observed indicated the Lead Radiation Protection Personnel for all 3 Units have received the initial training on the JPM. Records also documented the completion of training for all (20) of the Unit 2 RPMs.

Records of licensee drills, annual emergency exercises for 1988 and 1989, and the licensee's tracking list used to identify areas for improvement were examined. The tracking list was observed to identify the source of the item needing improvement (e.g., drill or exercise), the items priority, the individual responsible for correcting the item, a time frame for closing the item, and the date closed. Based upon a review of selected items identified during the 1988 exercise, the licensee's tracking list, and their successful demonstration during the 1989 exercise, the licensee appears to have a responsive program for correcting items identified during drills and exercises.

Licensee performance in this area appears to indicate improving performance since the previous evaluation.



c. Licensee Audits

The inspector verified that an independent audit of the Emergency Preparedness Program had been conducted on an annual basis, in accordance with 10 CFR 50.54(t) and Section 8 of the Emergency Plan. Audit reports 87-019, performed July 13-24, 1987, and 88-016, performed July 5-22, 1988, were provided to demonstrate the annual audits have been completed as required by 10 CFR 50.54(t). Areas audited included: drills and exercises, review and approval of ANPP procedures, Emergency Plan (EP) training, changes to the EP, the Emergency Planning Program, unusual event documentation, emergency equipment, corrective action from previous audits, public education and information, and an examination of the interface with state and local agencies. The Section of the audit that dealt with the interface between ANPP and state and local agencies was also noted to have been made available to those agencies. Items requiring corrective action were documented and transmitted to both plant and corporate management for resolution.

No violations were identified in this program area. No trend was observed.

5. Exit Interview

An exit interview to discuss the preliminary NRC findings was held on June 2, 1989. Licensee Personnel present at this meeting are identified in Section 1 of this report. The licensee was informed that no violations were identified during the inspection. Other items discussed during this meeting are described in Sections 2 through 4 of this report.

