

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

REGION V

Report No. 50-528/85-10

Docket No. 50-528

License No. NPF-34

Licensee: Arizona Nuclear Power Project
P. O. Box 52034
Phoenix, Arizona 85072-2034

Facility Name: Palo Verde Nuclear Generating Station-Unit 1

Inspection At: Palo Verde Site - Wintersburg, Arizona

Inspection conducted: April 29-May 3 and May 13-17, 1985

Inspector:

G. M. Temple
G. M. Temple, Emergency Preparedness Analyst

7/3/85
Date Signed

Approved by:

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

7/3/85
Date Signed

Summary:

Inspection on April 29-May 17, 1985 (Report No. 50-528/85-10)

Areas Inspected: A routine, unannounced emergency preparedness inspection in the areas of knowledge and performance of duties (training), licensee audits and changes to the emergency preparedness program. The inspection involved about 67 hours of onsite time by one NRC inspector.

Results:

Of the 3 areas inspected, no significant deficiencies or violations of NRC requirements were identified in 2 of them. One violation of NRC requirements was identified in the area of training for failure to provide initial training and annual retraining to some employees.

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DETAILS

1. Persons Contacted

- *T. Barsuk, Emergency Planning Engineer III
- *H. Bieling, Supervisor, Offsite Emergency Planning
 - D. Callaghan, Shift Supervisor
 - M. Cates, Emergency Planning Coordinator II
- *G. Clyde, ANPP Nuclear Licensing Engineer
 - M. Clyde, Supervisor (Acting) Shift Technical Advisor
- *M. Crusa, Government Liaison
 - F. Doyle, Lead Engineer, Management Systems Development
 - V. Elish, General Employee Training Instructor III
- *C. Emmett, ANPP Compliance Engineer
 - W. Fernow, Manager, Plant Services
 - T. Green, Supervisor, Training Support Services
 - D. Hackbert, Quality Assurance Engineer III
 - M. Halpin, Shift Supervisor
- *F. Hicks, Manager, Training
- *D. Hutton, Quality Assurance Engineer
 - R. Jacobs, Quality Assurance Engineer
- *D. Karner, Assistant V.P., Nuclear Production
- *J. Matteson, Quality Assurance/Quality Control Transition Representative
 - R. Meyers, Supervisor, Fire Protection
- *D. Nichols, Supervisor, General Training
 - R. Page, Program Manager, ANPP Prudency Audit
- *S. Penick, Supervisor, Quality Monitoring
- *W. Quinn, Manager, Licensing
- *C. Russo, Manager, Quality Audits and Monitoring
 - J. Sims, Emergency Planning Engineer III
- *L. Souza, Assistant Manager, ANPP Corporate Quality Assurance/Quality Control
 - R. Thompson, Lead Instructor, General Employee Training
 - T. White, Supervisor, Quality Audits
- *D. Yows, Manager, Emergency Planning and Preparedness

* Denotes attendance at the exit interview on May 17, 1985.

2. Licensee Audits

The inspector examined audit reports to determine that an independent audit/review of the emergency preparedness program had been conducted on an annual basis in accordance with 10 CFR 50.54(t) and Section 8.2 of the licensee's Emergency Plan (EP). Audit reports for 1982, 1983 and 1984 were examined. The 1982 and 1983 audits were conducted by HMM Associates, an outside consulting firm. The 1984 audit (Quality Assurance (QA) Audit No. 84-013) was conducted by the licensee's Quality Audits and Monitoring Department on June 19-27, 1984 and documented in QA Document No. 0-84-651-CNR, dated July 16, 1984. One Corrective Action Report (CAR) and ten Quality Assurance Observations (QAOs) were documented as a result of QA Audit No. 84-013. Audit findings were reported to appropriate corporate and plant management.

To ensure that the licensee's Emergency Preparedness Program is audited annually, the audit has been incorporated into the Quality Audits Department's scoping matrix, (Audit Scoping Matrix 18) and entered into the audit schedule. The scope of the audit is based on NUREG-0654, Revision 1, Section II, "Planning Standards and Evaluation Criteria". Individual audit scopes are prepared prior to each audit and include a portion of the above criteria, as well as any previous problem areas. Individual audit scopes are prepared such that all areas are addressed over a period of two to three years. As an example, the 1984 audit did not include an evaluation of the adequacy of the interface with State and local governments, because this subject was addressed in the 1983 audit. Provisions have been made to make this evaluation available to appropriate State and local governments whenever applicable.

In addition to the Quality Audits Department's formal deficiency tracking system, the Emergency Planning Department maintains an action item tracking system of its own. Audit findings and deficiencies noted during exercises and drills were found on the action item list. The inspector sampled a number of audit findings and a number of deficiencies identified by the licensee during the last annual exercise to verify that deficiencies had been corrected. Some NRC identified improvement items contained in the NRC exercise report (Inspection Report No. 50-528/84-37) were also sampled to determine whether these improvements had been considered. The inspector found that all of the deficiencies had been corrected and improvement items had been considered and/or corrected.

No significant deficiencies or violations of NRC requirements were identified.

3. Changes to the Emergency Preparedness Program

To determine if any changes had been made to the emergency preparedness program, the inspector reviewed changes to the emergency response facilities and organization, changes to the EP and Emergency Plan Implementing Procedures (EPIPs), and changes to the licensee's Emergency Planning Department. Changes were evaluated to determine the affect on the overall state of emergency preparedness.

The inspector toured the Emergency Operations Facility (EOF), Technical Support Center (TSC) and Operations Support Center (OCS) and determined that there were no significant changes to those facilities. As a functional change, the decision has been made to move offsite (licensee) field team direction from the TSC to the EOF. Since State and county field teams have always been directed from the EOF, no additional personnel or equipment will be required in the EOF. This change does not impact the overall state of emergency preparedness.

The inspector noted three changes to the emergency response organization: 1) clerical personnel will fill the positions of status board keepers, rather than technical personnel; 2) a technical information monitor has been added to the TSC organization to function as the key contact to EOF personnel; and 3) two NRC liaison personnel (one health physics and one operations) have been added to the TSC organization. These changes do not impact the overall state of emergency preparedness.

The licensee is currently revising its EP. To complete the process, EP revisions are distributed to licensee management for review and comment. All comments are addressed to the Emergency Planning Department for resolution and disposition. The completed draft is approved by the Manager, Emergency Planning and Preparedness and submitted to the Plant Review Board (PRB) review and approval cycle. Upon PRB approval, the EP is sent to the Executive VP, VP and Assistant VP, Nuclear Production, for concurrence. The aforementioned organizational changes are being incorporated into the EP and applicable EPIPs.

With respect to the EPIPs, one major change has occurred as a result of the recently issued ANPP Administrative Policies and Procedures Manual. Licensee personnel determined that four EPIPs were "administrative" procedures that did not implement any emergency response activities and, therefore, cancelled them as EPIPs after they were re-written and issued as procedures in the new ANPP manual. The inspector pointed out to licensee personnel that although the newly issued corporate procedures were of an administrative nature, they still implement portions of the EP and need to be treated like EPIPs, which includes meeting the distribution requirement of Section V of Appendix E to 10 CFR 50.

The following is a summary of affected procedures:

- A. EPIP-01, "Emergency Organization" was cancelled January 18, 1985 and replaced with 7N409.02.00, "Emergency Preparedness Organization and Staffing". This procedure implements Section 4 of the EP.
- B. EPIP-35, "Review, Update, and Revision of The PVNGS Emergency Plan" was cancelled March 22, 1985 and replaced with 7N409.03.00, "Emergency Plan Review and Approval", 7N409.04.00, "Emergency Plan Change Notice" and 7N409.07.00, "Emergency Plan Implementing Procedures Review and Approval". These procedures implement Section 8 of the EP.
- C. EPIP-37A, "Emergency Preparedness Drills" was cancelled March 22, 1985 and replaced with 7N409.08.00, "Emergency Preparedness Drills". This procedure implements Section 8 of the EP.
- D. EPIP-37B, "Emergency Preparedness Exercises" was cancelled March 22, 1985 and replaced with 7N409.09.00, "Emergency Preparedness Exercise". This procedure implements Section 8 of the EP.

In addition to the above procedures, EPIP-36, "Emergency Preparedness Training", has been targeted for cancellation. The corporate procedure to replace this EPIP is 8N718.04.00, "Emergency Plan Training". Because the corporate procedures supersede all other procedures, the Training Department has been using the ANPP procedure to conduct training. The ANPP EP training procedure in effect is Revision 1. Revision 2 will be issued after procedural differences between EPIP-36 and 8N718.04.00 are resolved. It should be noted that, at the present time, some major inconsistencies exist between the two procedures and some delay has occurred in getting these differences resolved. This matter is discussed in greater detail in Section 4 of this report.

Since none of the corporate procedures mentioned above were distributed to the NRC in accordance with the aforementioned requirement, technically, the licensee was in violation of the requirement. As an interim solution, during the exit interview, the licensee committed to formally transmitting specific EP related corporate procedures during the week of May 20, 1985. The licensee also mentioned during the exit interview that as a long range solution, the cancelled EPIPs might be reinstated. Because three of the four EPIPs were just recently cancelled and one (EPIP-01) is practically a verbatim representation of Section 4.2 of the EP, and the licensee has committed to a timely resolution, the matter of the violation was terminated with the exit interview.

With respect to the administration of the licensee's emergency preparedness program, the inspector investigated the impact of some known vacancies and personnel changes. The Emergency Planning Department existed for about two months without the benefit of a full-time manager. This had an impact on filling two other vacant positions. These two positions, Training Administrator and Emergency Planning Engineer, have been vacant since the end of 1984. The Supervisor, Site Emergency Planning was promoted to Manager on April 26, 1985, leaving yet another vacancy. The Emergency Planning Department has weathered this situation by shifting work duties to make up for the vacancies. The inspector concluded that the department would benefit by prioritizing the filling of the vacancies, particularly the position of Training Administrator.

4. Knowledge and Performance of Duties (Training)

The inspector examined the EP training program for offsite and onshift/onsite personnel. Both training programs are described in Section 8 of the licensee's EP and detailed in EPIP-36, Revision 1, "Emergency Preparedness Training". As previously mentioned, this procedure has been superseded by ANPP Administrative Procedure No. 8N718.04.00, Revision 1, "Emergency Plan Training". This training program has been established to satisfy the requirements of 10 CFR 50.54(q), 10 CFR 50.47(b), Technical Specification 6.8.1 and Section IV.F of Appendix E to 10 CFR 50.

Initial EP training for onshift/onsite and EOF emergency response personnel is identified in Attachment 1 to Procedure No. 8N718.04.00. Training personnel indicated that three of the training courses listed in Attachment 1 had been deleted and the material covered in other training courses. Further, a new shortened overview course (NGP-16) had been added to the program for retraining purposes. Section 4.2.1 of procedure No. 8N718.04.00 states that "personnel assigned to the PVNGS Emergency Organization shall receive initial and annual retaining specific to their emergency assignment".

Section 4.2.5 of the procedure states that retraining for emergency response personnel "shall consist of an overview and a review of their specific emergency responsibilities". Contrary to Technical Specification 6.8.1 and IV.F of Appendix E to 10 CFR 50, the inspector noted the following instances where initial training or retraining was not provided in accordance with procedural requirements.

- A. One individual identified as the primary onsite Technical Engineering Coordinator in the emergency response organization had not had refresher overview training since 11/12/82.
- B. One individual identified as the primary Radiation Protection Coordinator in the emergency response organization had never had initial training in Survey and Sampling. This course is required annually for this position.
- C. One individual identified as a back up Radiological Assessment Communicator had never had initial training in EOF Operations and Survey and Sampling. In addition, this individual had not had overview training since 10/03/83.
- D. Eight individuals identified as Satellite Technical Support Center (STSC) Communicators/Operations Personnel/Fire Team members have had refresher overview training within the last 15 months, but the longer initial overview training was never received.
- E. Of the 34 Analysts/Systems Engineers listed on the Training Records Management System (TRMS) printout, only 6 of the individuals had ever received initial TSC Operations training, however, most were current in their overview training.

The inspector discussed Item E with training personnel and was informed that since refresher overview training included an individual's responsibilities in the facility to which they were assigned, initial facility operations training was not being provided. This decision was made at the instructor level and no record of Training Management and/or Emergency Planning authorization could be produced.

The inspection also disclosed a number of problems with the TRMS. It should be noted that the TRMS is a new computerized system being used to track emergency response training. The system was designed to correct weaknesses in the previous tracking system. The weaknesses in the previous system had been identified by NRC and the licensee's audit department. The licensee has been using the current system since February 1985. Copies of the printout are sent to supervisors once a month to keep them informed of the training needs of their employees. The inspector found the TRMS printout to be inaccurate. By checking microfiche training records, the inspector noted several instances where training had been completed, but was not reflected on the TRMS output. It should be noted that this represents conservatism in that those individuals would be required to receive annual retraining earlier than necessary. For the position of Radiological Assessment Coordinator, Survey and Sampling training is required by Procedure No. 8N718.04.00, however, it is not listed on the printout. None of the individuals (primary or alternates) had ever had this training and it is not clear whether training would have been scheduled in the future. Supervisors are required by Station Manual Procedure No. 81AC-OZZ01, "PVNGS Training Records", to review applicable procedures and submit to the Training Department forms identifying training commitments for job classifications of individuals reporting to them. Completed forms are then incorporated into TRMS which uses code numbers to identify individual training courses. It should be noted that the Survey and Sampling course was not a requirement identified in EPIP-36 for the Radiological Assessment

Coordinator position. Since these codes are not identified in either of the two training procedures, the inspector had some concerns about whether supervisors could identify course titles from the codes printed on the TRMS.

The examples of overdue/incomplete training noted above should not be considered as a complete list. The inspection disclosed that these particular cases were only representative of the deeper problems with the emergency training program. The inspector's first examination of the TRMS printout revealed that out of about 900 individuals, approximately 36% were not up to date in their training when the annual training year (a procedure requirement) was used along with current training requirements. Records for 669 individuals were examined. The inspector was made aware of a December 18, 1984 memorandum from the Plant Manager which granted a 15 month period for completing training. Further, the memorandum states that protected area access cards, (ACAD) "may" be pulled if retraining is not completed prior to the 15 months. This was done apparently in an effort to ensure that training is conducted in a timely manner. The list of individuals not current in their training dropped significantly when the 15 month training year was used. Additionally, based on the incomplete state of the TRMS printout, microfiche records were accessed to confirm training status of as many individuals as time permitted. Some individuals were found to be current, based on the microfiche records. As previously mentioned, the licensee considered training complete for those individuals who had completed refresher overview training without specialized initial training. This represented a significant number of individuals.

The inspector also found some inconsistencies between the names listed on the TRMS for certain emergency response positions and those names appearing on the individual facility staffing list that is prepared by the Emergency Planning Department. Individuals are entered into the TRMS automatically by job classification or manually by Social Security Number. Emergency Planning personnel reported that training records are not checked prior to adding personnel to the Staffing List. It appears that the mechanism for placing individuals on the TRMS and the Staffing List should be reviewed.

The inspector also noted that approximately 100 individuals appearing on the TRMS listing have never had any emergency response training at all. The licensee should make an attempt to determine whether these individuals are new hires or have simply not been scheduled for training. The licensee has not established a time limit for completing training for newly hired personnel.

The inspection disclosed another example of training not being conducted in accordance with procedural requirements. Section 4.1.1 of procedure no. 8N718.04.00 states that "annually, PVNGS personnel shall receive general instruction on the Emergency Plan concerning personnel assembly, accountability, evacuation and reassembly". This requirement is also described in Sections 4.3.1.1 and 4.3.1.3 of EPIP-36. EPIP-36 is noted with an effective date of 3/25/83. Contrary to this procedural requirement, personnel who do not require unescorted access into the security protected area do not attend annual site access training to receive ACADs and have not been given this basic training and indoctrination on an annual basis. This type of training is only given once when individuals are first hired. This affects mainly clerical personnel reporting to the licensee's Administration Building. Since retraining in this area has never been conducted,

coordination between the Training Department and the Emergency Planning Department appears to be in question, particularly in the area of procedure development.

The inspector also examined the training records for offsite emergency response personnel. The inspector reviewed only the ANPP corporate personnel records. Of the 122 individuals listed, 87 were overdue in their training if a 12 month training year was used, however, none were overdue using the 15 month training year. The delay in training resulted from the need to revise the corporate procedures, the need to rework the overview training course and the lack of personnel to accomplish these tasks. During the exit interview, licensee personnel reported that every effort would be made to conduct the required training before the 15 month period was exceeded. This appears to be an adequate resolution.

To evaluate their familiarity with the EP and EIPs, the inspector presented a NRC prepared scenario to two Shift Supervisors. The scenario involved all four emergency classifications and required the use of the plant's Technical Specifications. Both Shift Supervisors clearly understood their responsibilities during an emergency and both effectively utilized the Technical Specifications and applicable EIPs.

One violation of the NRC requirements described in the first paragraph of this section, failure to train and retrain personnel on emergency preparedness in a timely manner, was identified during this portion of the inspection (85-10-01).

5. Emergency Plan Implementing Procedure Review

As part of the emergency preparedness licensing program, the Region V Emergency Preparedness Section is required to perform an annual review of changes to licensee's EIPs. This review was accomplished in the office, prior to this inspection. The following procedures were reviewed.

- EPIP-02, Revision 2, Emergency Classification
- EPIP-03, Revision 6, Notification of Unusual Event Implementing Actions
- EPIP-04, Revision 5, Alert Implementing Actions
- EPIP-05, Revision 5, Site Area Emergency Implementation Actions
- EPIP-06, Revision 5, General Emergency Implementing Actions
- EPIP-14A, Revision 3, Release Rate Determination
- EPIP-14C, Revision 0, Continuing Dose Assessment
- EPIP-20, Revision 3, Personnel Assembly and Accountability
- EPIP-22, Revision 3, Personnel Injury
- EPIP-27, Revision 3, Post Accident Sampling
- EPIP-38, Revision 5, Emergency Equipment and Supply Inventory
- EPIP-56, Revision 1, Ultimate Heat Sink Emergency Water Supply

The changes made continued to implement the EP, did not reduce the effectiveness of emergency preparedness and did not result in a failure to meet the performance standards in 10 CFR 50.47 (b).

6. Exit Interview

An exit interview was held with the licensee on May 17, 1985 to discuss the details of the inspection. In addition to the personnel identified in Section 1, Mr. Roy Zimmerman, NRC Senior Resident Inspector, was present. The licensee was informed of an apparent violation of the training requirements of 10 CFR 50.54 (q). With the exception of the failure to provide annual training to personnel who do not frequent the protected area, the programmatic problems described in Section 4 were discussed. Subsequent to NRC Region V management concurrence, this matter was discussed by telephone with ANPP Nuclear Licensing personnel on June 21, 1985. The inspector also expressed some concern about the vacancies in the Emergency Planning Department with the expectation that the vacancies can be filled now that a full-time manager has been selected.