

Arizona Public Service Company

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WILLIAM F. CONWAY
EXECUTIVE VICE PRESIDENT
NUCLEAR

212-01144-WFC/RJS/ACR/JJN
April 3, 1993

Mr. John B. Martin
Regional Administrator, Region V
U. S. Nuclear Regulatory Commission
1450 Maria Lane, Suite 210
Walnut Creek, CA 94596-5368

Reference: Letter dated March 5, 1993, from K. E. Perkins, NRC Region V,
to W. F. Conway, APS.

Dear Mr. Martin:

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2 and 3
Docket Nos. STN 50-528/529/530
Response to NRC Request for Information
File: 93-056-026

The referenced letter requested that Arizona Public Service Company (APS) review information regarding the consolidation of security guard and firewatch duties and provide a response. The response is provided in the attachment to this letter.

Combining security and firewatch tours at APS was implemented after careful evaluation and thorough preparation. Nevertheless, the referenced letter states that implementation of the program to combine security and firewatch tours appeared to be weak. The attached response provides background information regarding the development and implementation of the program.

The response to NRC Item No. 3 contains information from personnel training files, the disclosure of which would constitute an unwarranted invasion of personal privacy. Therefore, APS requests the response to NRC Item No. 3 be withheld from public disclosure pursuant to 10 CFR § 2.790(a)(6) and 10CFR § 9.17(a)(6).

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If you have any questions regarding this letter, please contact Mr. Carter Rogers at
(602) 340-4041.

Sincerely,

A handwritten signature in cursive script, appearing to read "W. F. M. W.", positioned below the word "Sincerely,".

WFC/RJS/ACR/JJN/rw
Attachment

cc: J. A. Sloan
NRC Document Control Desk



ATTACHMENT
RESPONSE TO NRC REQUEST FOR INFORMATION
DATED MARCH 5, 1993

RESPONSE TO NRC REQUEST FOR INFORMATION

BACKGROUND INFORMATION

Prior to January 1, 1993, firewatch tours were conducted by contract employees hired specifically for that duty. The personnel were trained in accordance with the Fire Protection Program and then given duties as continuous or roving firewatches. The following discussion provides background on the development and implementation of the APS training and qualification program for Members of the Security Force (MSF) to conduct firewatch tours as a part of their security tours.

On July 1, 1992, APS informed the NRC that the feasibility of combining the responsibilities of security tours and firewatch tours was being reviewed. In August of 1992, APS contacted Portland General Electric for information on their program. It was understood that a successful program had been established there. APS visited the Trojan Nuclear Plant in September 1992, to observe the program at Trojan and to gain additional information for the implementation of the PVNGS Security/Firewatch Program. In October 1992, APS Senior Management approved combining the responsibilities of security tours and firewatch tours. Also, in October, 1992, firewatch Computer Based Training (CBT) curriculum review was initiated, CBT computers were placed in the Building 'F' Training Facility, and discussions were held with the Security Guard Union. Additionally, Security, Fire Protection, and Unit Maintenance evaluated staffing options for both normal operation and contingency events.

APS informed the NRC on October 27, 1992, that the MSF would assume responsibility for roving fire watch patrols. In the event that a continuous firewatch was in the same area as a security compensatory post, then the MSF would perform the continuous firewatch function.

On November 23, 1992, APS began training the MSF on firewatch duties. It was intended that the contractor firewatch personnel would conduct familiarization tours for the MSF upon completion of the CBT and firewatch practical training. However, on December 1, 1992, the MSF expressed a concern about the perceived un-cooperativeness of the contractor firewatch personnel whose jobs were being discontinued. Although the concern could not be substantiated, APS decided to have the Security training instructors provide tour familiarization to the Shift Sergeants and Security supervision. The qualified Sergeants and Security supervision subsequently conducted familiarization tours with the MSF. This familiarization provided instructions on tour routes and general expectations. Additionally, the MSF were provided opportunities to ask questions regarding proper tour performance.



Following the tour familiarization, each of the MSF was then "shadowed", i.e., observed by Security supervision, while performing the tour. The MSF and supervision signed the tour sheet acknowledging that the MSF had demonstrated the ability to perform both the Security Vital area tour and the Firewatch tour for a subject post. These activities were performed at a particular post and documented on a Security Vital/Fire Tour Check form prior to qualifying the MSF on a particular post.

Approximately ten Security/Firewatch drills were held by the Security Performance Assessment Section during the week of December 28, 1992, prior to the full implementation of the MSF assuming firewatch duties. The purposes of these drills were: to evaluate Security/Firewatch performance during contingency events such as computer malfunctions, alarm responses, etc.; to assess the readiness of the MSF to assume firewatch responsibilities; and to determine if additional actions were required. In each of these drills, fully trained firewatch MSF were able to perform both firewatch and security duties within the allotted time. Two of the drills involved MSF who had not fully completed pre-requisite training and as such did not take appropriate action to ensure firewatch tour responsibilities were assumed. These individuals completed the appropriate training prior to being assigned active tour duty.

On January 1, 1993, active MSF tours began with Security supervision accompanying officers on their first firewatch tour to ensure they were capable of performing the duty. To assure proper qualification of the MSF prior to performance of a tour, a Firewatch Tracking System was developed and updated periodically (approximately weekly) to provide a clear status report of all the MSF who had completed training and were eligible for firewatch duties, and to status the training needed for the MSF. This tracking system was used extensively to ensure that the tour assignments were proper. APS has not identified any instance in which any MSF have been placed on any Security/Firewatch tours prior to being trained in accordance with the program, accompanied on the tour by supervision, and signing the new tour sheets. In addition, during the first two weeks of the new Firewatch Program, at each MSF preshift briefing, Security management encouraged questions or concerns.

APS Quality Audits and Monitoring Department (QA&M) conducted a total of 14 Monitors between January 5, 1993, and March 19, 1993, to verify that the training was effective and that the firewatch tours were being conducted properly. One of the first Monitors determined that the MSF were not checking fire panels as required by procedure. An Instruction Change Request (ICR) had been initiated to delete the procedural requirement to check the fire panels. It was anticipated that this change would be readily approved; therefore, management instructed the MSF not to check the fire panels. As a result of the Monitor, the fire panels were checked until the procedure was revised.



Another Monitor found that the MSF had questions about the tours during a briefing, but the questions were not answered before the MSF were dismissed to conduct their tours. Corrective action was immediate and consisted of requirements for Security supervision to again shadow the MSF on their tours until all questions were answered. A twelve hour shift rotation was established for Security supervision to ensure that adequate time was allocated to resolve any outstanding concerns. Additional shadow tours have since been conducted to verify proper performance and answer subsequent questions. APS Management also accompanied MSF on tours as part of the Management Observation Program. These observations included back shift tours of the Auxiliary Building, Control Building, and Main Steam Support Structure.

In summary, APS sought to identify and to anticipate the consequences of consolidating the security and firewatch duties. APS believed that the change would improve the quality of the firewatch tours and increase Security presence in the units. The MSF, in general, have longer and more diversified experience at PVNGS than the typical contract personnel previously performing the firewatch duties. The MSF have knowledge of the vital areas in the power block, which is a distinct advantage in learning the firewatch tours. The number of questions asked during the training of the MSF also indicates a high level of plant awareness.

The planning for this change included contacting and visiting another utility with a successful program, establishing and controlling training, independently verifying proper performance, and correcting unsatisfactory findings. The training included the required CBT, practical courses, and the tour familiarization. It also included special briefings with Security supervision, drills, briefings with the Performance Assessment Supervisor, shadowing by Security supervision, and an independent assessment in excess of the requirements of the Fire Protection Program. APS has not identified any missed firewatch tours since the program was implemented on January 1, 1993.



ITEM NO. 1

Describe the substance of the training and instructions given to security personnel related to the conduct of fire watches, and provide the dates and length of training sessions that security personnel attended to prepare them for firewatch duties. Please explain whether and to what extent this training preceded the initiation of security employee conduct of firewatch rounds.

APS RESPONSE TO ITEM NO. 1

The MSF assigned firewatch duties were trained and qualified per the requirements established in PVNGS Procedure 14AC-0FP04, "Firewatch Duties." The required training consists of two courses: NGF-15 (shown as NGF 1501 in the computer records), "Firewatch Fundamentals," and NGF-16 (shown as NGF 1605 in the computer records), "Firewatch Practical I." Training course NGF-15 is approximately three (3) hours and is administered by computer, i.e., it is not an instructor led class. Training course NGF-16, "Firewatch Practical I" is a hands-on, instructor led class. The length of the practical course depends on the number of students and the number of repetitions necessary for each of the students to demonstrate the requisite skills. The practical course was conducted by qualified instructors from the Fire Department, and usually lasted two to three hours. The substance of the training and instruction for these two courses is described below.

The dates and length of the training sessions is given in the records provided in the APS Response to Item No. 3. Both courses were developed by the Training Department utilizing expertise from the Fire Department to validate the technical content. As noted in the APS Response to Item No. 2, successful completion of both the CBT and the practical course is required to be "qualified." Each of the MSF was required to receive this training before being assigned to firewatch duties.

The substance of training for NGF-15, "Firewatch Fundamentals" is as follows:

1. Identify the four elements that make up the fire tetrahedron (fuel, oxygen, heat, and chemical chain reaction).
2. Identify how fire is extinguished.
3. Identify the five commonly used extinguishing agents and how each type extinguishes fire.
4. Identify the four classes of fire and the recommended extinguishing agent(s) for each.

5. Recognize how to choose the appropriate extinguisher for a particular class of fire.
6. Identify the types of extinguishers most commonly used at PVNGS and the general and specific operating principles for each.
7. Identify the associated hazards with using a CO₂ extinguisher.
8. Identify where extinguishers are issued for hot work and continuous firewatches.
9. Identify who must be notified if an extinguisher is expended or inoperable.
10. Recognize whom you must call to report a fire, fire panel alarm, or fire hazards.
11. Identify what information should be provided when reporting a fire.
12. Recognize how to use door numbers to report plant locations.
13. Identify the three types of firewatches and the specific requirements for each.

NGF-16, "Firewatch Practical I," follows the successful completion of the computer-based training. The substance of training is as follows:

1. Perform appropriate pre-operational checks on portable fire extinguishers prior to use.
2. Demonstrate proper advance and withdrawal techniques while fighting fires with a portable extinguisher.
3. Recognize how to extinguish a Class "A" fire.
4. Demonstrate the ability to extinguish a Class "B" fire.
5. Recognize how to extinguish a Class "C" fire.

Attached is a copy of the computer printout listing the MSF and the dates they completed "Firewatch Fundamentals" and "Firewatch Practical."

In addition to the required training, briefings and drills were held, and the MSF were accompanied on their tour familiarization and shadowing by Security supervision. The familiarization forms of the MSF are included with the APS Response to Item No. 3. QA&M conducted Monitors of the MSF firewatches to verify proper implementation of the program. These actions were done to insure that the MSF firewatches knew the tour routes and were conducting them properly.

ITEM NO. 2

Explain how the training referred to in 1. above met the requirements of the Palo Verde Fire Protection Plan.

APS RESPONSE TO ITEM NO. 2

The mandatory training requirements of the Fire Protection Plan (PVNGS procedure 14PR-0FP01, "Fire Protection Program") are delineated in PVNGS procedure 14AC-0FP04, "Firewatch Duties." In accordance with procedure 14AC-0FP04, personnel performing firewatch duties must successfully complete training courses NGF-15, "Firewatch Fundamentals" and NGF-16, "Firewatch Practical" prior to performing firewatch duties. Personnel must successfully pass both courses on an annual basis to maintain their qualifications.

According to procedure 14AC-0FP04, the firewatch's principal duty and responsibility is to watch for and report fire or smoke. The firewatch is to check specific areas in the plant where fire suppression/detection systems or fire barriers are impaired and to look for and report any fire or smoke. The procedure notes that when assigned as a firewatch requiring the use of a portable fire extinguisher, each firewatch shall ensure that their required extinguisher is valid by checking that the safety pin is in place and secured, that the pointer on the gauge indicates that the pressure is in the green range, that there is no visible damage to the extinguisher, that the monthly metal inspection tag is punched and current, and that the annual inspection sticker is current. These requirements are specifically taught in the "Firewatch Practical" class.

In addition, the firewatch must know what to do if the fire system alarm or a Halon/CO₂ pre-discharge alarm sounds. Firewatches must know how to make fire notifications and how to fight fires. This information is taught generally in "Site Access Training" and specifically in "Firewatch Fundamentals" and "Firewatch Practical" training.

Roving firewatches have specific patrol time requirements and specific duties in case of a security emergency. Patrol times and response to security emergencies are not included in required training. Rather, the patrol time concept and security emergency duty responsibilities were covered during the shift briefings and during the tour familiarization and were checked in specific drills.

ITEM NO. 4

Provide any investigation reports into security employee concerns of intimidation and/or employment discrimination related to the consolidation of firewatch and security duties. To the extent not already discussed in earlier correspondence, describe the mechanisms planned or in place to assure that security personnel conducting fire watches can freely raise safety concerns without fear of retaliation.

APS RESPONSE TO ITEM NO. 4

There have been no security employee concerns pertaining to intimidation and/or employment discrimination related to the consolidation of firewatch and security duties reported to the APS Employee Concerns program.

As discussed in earlier correspondence, there have been numerous efforts to assure that PVNGS personnel can freely raise safety concerns without fear of retaliation. Examples include employee initial site access training, annual site access retraining, specific supervisory training of the rights of those who identify potential problems, and executive memos to all personnel. See APS letter 102-02116-WFC/TRB/KR, from W. F. Conway to J. B. Martin, dated February 25, 1992; PVNGS memo 102-02117-WFC/TRB/KR, from W. F. Conway to all Palo Verde Employees and Contract Personnel, dated February 26, 1992; PVNGS memo 212-01098 from W. F. Conway to All Employees, dated December 1, 1992; and APS letter 102-02330-WFC/TRB/JJN, from W. F. Conway to J. B. Martin, dated October 30, 1992.

In addition, in order to assure that all security concerns were being addressed as Security became responsible for the firewatch tours, pre-shift briefings were conducted each day for fourteen consecutive days. The briefings covered the responsibilities of the MSF to complete security work and firewatch duties in accordance with the training they had received. In order to ensure a smooth and effective transition, the MSF were asked to bring forward any concerns about the firewatch training or operational issues. The briefings were done with the on-coming MSF shift. Security supervision conducting the briefings encouraged the MSF present at the briefings to raise any questions and concerns they might have. An effort was made to identify and address promptly all MSF questions and concerns about the new firewatch program in these briefings. In the one case discussed in the Background Information, where all questions were not answered, prompt corrective action was taken to correct the deficiency.

