



A subsidiary of Pinnacle West Capital Corporation

Palo Verde Nuclear
Generating Station

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U.S. Nuclear Regulatory Commission
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Reference: NRC Letter dated July 8, 2008, from Mr. Michael T. Markley to Mr. Randall K. Edington, Request for Additional Information Related to Response to NRC Bulletin 2007-01, "Security Officer Attentiveness"

Subject: **Palo Verde Nuclear Generating Station (PVNGS)**
Docket Nos. STN 50-528, 50-529 and 50-530
Response to NRC Request for Additional Information Related to NRC Bulletin 2007-01

Dear Sirs:

By letter number 102-05812 dated February 11, 2008, Arizona Public Service Company (APS) submitted a written response to NRC Bulletin 2007-01, "Security Officer Attentiveness," for the PVNGS Units 1, 2, and 3.

In the referenced letter, the NRC issued a request for additional information (RAI) pertaining to APS' response. The request for additional information requested a response be submitted within 35 days. APS' response is enclosed.

APS makes no commitments in this letter. If you have questions regarding this submittal, please contact James Proctor, Section Leader, Regulatory Affairs, at (623) 393-5730.

Sincerely,

DCM/TNW/JAP/DFH/gt
Enclosure:

APS Response to NRC RAI Related to NRC Bulletin 2007-01

cc: E. E. Collins Jr. NRC Region IV Regional Administrator
M. T. Markley NRC NRR Project Manager
R. I. Treadway NRC Senior Resident Inspector - PVNGS

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Enclosure

**APS Response to NRC Request for Additional Information Related to NRC
Bulletin 2007-01, "Security Officer Attentiveness"**

Related to the APS response to Question 1a, the U.S. Nuclear Regulatory Commission (NRC) requests the following additional information:

NRC Question 1

Please describe the process for security post rotations including the rotation process for isolated positions.

Please include the following information in your response:

A description of the security post rotation process including, but not limited to: (1) a discussion of the types of posts a typical security officer would rotate through during a normal shift; (2) a discussion on whether the type of activity (i.e. roving or foot patrol or stationary in a Bullet Resistant Enclosure [BRE]) performed at each individual post is taken into consideration when a security officer moves from post to post throughout the shift; and (3) the length of time at each post. When responding, particular emphasis should be placed on whether the licensee takes into consideration the activities associated with each post assignment when formulating their post rotation schedules for each shift (i.e., rotating from foot patrol to BRE to Vital Area Patrol or rotating from BRE to ready room to BRE etc.).

APS Response to NRC Question 1

Palo Verde Security Team Leaders develop the schedule for their team three to four days prior to the scheduled shift. The development of the schedule takes into consideration the placement of personnel in both active (e.g., foot/roving patrol and mobile vehicle patrol) and stationary posts with efforts made to not have individuals work back-to-back in an environment which could jeopardize an individual's ability to remain alert. During a typical shift, Security Officers rotate from a stationary post to a roving patrol or vice versa. The approximate length of time at any given post is typically two hours.

Security Officers assigned to one of the three units rotate between stationary posts and roving patrol posts within the assigned unit. In one of the units there is an additional stationary post. Security Officers assigned to that unit may rotate from one stationary post to another stationary post before rotating to a roving patrol.

Security Officers are also assigned to the Protected Area (PA) and Security Owner Controlled Area (SOCA) ingress control points. The types of posts a security officer would rotate through for these assignments include observation of personnel/vehicle

access screening to the PA, vehicle access inspections to the SOCA and mobile vehicle patrols.

During plant outages, security computer outages or when compensatory measures are established, additional Security Officers are deployed or assigned to control access. The additional Security Officers used to man posts for these activities are not part of the Response Force and may be assigned to a post for a longer period of time. When additional Security Officers are used, one officer is designated as a relief officer for every 4 posts. Team Leaders responsible for these posts, ensure breaks are provided and evaluate the condition of the officers to ensure they are alert.

Related to the APS response to Question 1b., the NRC requests the following additional information:

NRC Question 2

Please describe any licensee processes or programs that are in place to identify problems in climate-controlled security areas. What methods are used to track, inspect and ensure timely repairs are completed?

Please include the following information in your response:

A description of how the security areas are maintained including, but not limited to: (1) a discussion of the maintenance and/or preventive maintenance process and program in place for these security areas including an overview and brief discussion on routine inspection schedules by maintenance personnel; (2) a discussion on the process a security officer can follow to report concerns with the upkeep and maintenance of his or her post; and (3) a discussion on the timeliness of repairs and any follow-up actions taken by the licensee to ensure repairs are completed and resolved adequately.

APS Response to NRC Question 2

Climate-control equipment for security posts in the power plants (i.e., permanent plant equipment) is maintained in accordance with the station preventive maintenance (PM) program by plant maintenance personnel. In other areas, such as, guard houses and buildings, climate-control equipment is maintained by the Palo Verde Nuclear Generating Station (PVNGS) Facilities Maintenance Group. Preventive maintenance on the climate-control equipment for non-power plant equipment is limited to changing air filters.

However, if a problem is identified with the climate-control equipment or the maintenance of any equipment at a security post, Security personnel can and are procedurally required (20DP-0SK20, General Security Instructions) to report the

condition to the Security Shift Supervision. Additionally, employees are required to report concerns or potential problems by documenting the issue with a Palo Verde Action Request (PVAR). PVARs are discussed further in the response below to Question #3.

Timeliness of the response to the identified concern is based on the significance and immediacy of the issue. Problems requiring immediate attention (e.g., an air conditioning unit fails) are corrected by maintenance personnel from the Fix-It-Now (FIN) Team. The FIN Team response to problems is generally within a few hours. If the problem is too complex for the FIN Team or is not an immediate need, the Facilities Maintenance section would make the necessary repairs in a timely manner. Once repairs are made, a Security Team Leader will generally review the condition at the security post to ensure the repair is acceptable.

Related to the APS response to Question 2, the NRC requests the following additional information:

NRC Question 3

Please describe the process for employees to file reports through the site corrective action program (CAP). Can employees file CAP reports without prior supervisory/management review or approval?

Please include the following information in your response:

Describe the process for employees to file reports through the CAP. Discuss the supervisor/management review and/or approval process including, but not limited to: (1) does a supervisor/manager have the authority to reject a report before entering it into the CAP without additional management review and approval; and (2) does a supervisor/manager have the authority to modify the report before such report has been entered into the CAP?

APS Response to NRC Question 3

Employees are required to report concerns or potential problems by documenting the issue with a Palo Verde Action Request (PVAR). The PVAR provides a process for the identification, documentation, control and disposition of conditions that have the potential to adversely affect the safe, reliable and economic production of electricity. PVARs can be initiated at an individual's computer work station or at computer kiosks located at various locations throughout the site. PVARs do not require leader involvement to initiate. Additionally, PVARs can be hand written.

Once generated, PVARs are electronically routed in parallel to a licensed Senior Reactor Operator (SRO) and the leader of the PVAR initiator. A prompt review by the licensed SRO is performed to assess the described condition to determine whether a degraded or nonconforming condition exists on a system, structure or component subject to an operability determination or functional assessment. The leader is encouraged but not required to review the PVAR to ensure it is accurate and complete, clearly describes the condition, contains enough information to understand why the condition is a problem, and describes any necessary immediate actions (corrective or compensatory). The leader does not have the authority or ability to reject or modify the PVAR description once it has been initiated by the originator (i.e., entered into the CAP). The leader may provide comments and clarifications by documenting them in the leader review fields.

In addition, the CAP allows PVARs to be generated anonymously. A PVAR may be submitted anonymously either electronically or by printing a PVAR form and handwriting the required information. Anonymous PVARs do not receive a leader review but do receive the SRO review.

NRC Question 4

Can the employees view the status and disposition of reports directly, or must this information be requested? If yes, please describe the process.

APS Response to NRC Question 4

Employees are able to review the status and disposition of the PVAR from initiation to closure if they have completed training to allow them access to the electronic Site Work Management System (SWMS). If computer access to SWMS is not available, then a paper copy may be viewed by requesting the information from the CAP department. Paper copy requests do not require leader approval. PVARs that are confidential or proprietary can also be obtained from the CAP department in accordance with site procedures. If a PVAR describes safeguards information, a copy can be obtained from the Nuclear Information Records Management Department also in accordance with site procedures. Additional restrictions and precautions are implemented for confidential, proprietary and security safeguards information due to the sensitive nature of these documents.

Related to the APS response to Question 4, the NRC requests the following additional information:

NRC Question 5

Are formal assessments of the security program conducted by organizations/individuals that do not have direct responsibility for the security program? If so, provide information on the process, including, but not limited to, the organizations and levels of management involved, the frequency of such activities, and any tracking of how findings are resolved.

APS Response to NRC Question 5

Formal assessments of the PVNGS Security organization are conducted by the Nuclear Assurance Department (NAD). The NAD is an independent organization that reports directly to the Executive Vice President and provides implementation of the station's quality assurance program.

Three methods used by NAD to provide oversight are observations, evaluation reports, and audits.

Personnel from the NAD perform routine (daily and weekly) observations and observe areas of the Security organization to ensure program compliance. This may include, but is not limited to: observing the search train screening in the PA ingress area, observing the search process in the vehicle ingress/egress area, shadowing Security personnel on their patrols, reviewing security paperwork and/or procedures. The observations are documented in a Nuclear Assurance electronic database.

NAD assessments focused in specific areas of an organization or program are also conducted. These assessments are planned, are more structured, and are more in-depth than an observation. The results of focused assessments are documented on an evaluation report.

On an annual frequency, NAD conducts audits of the Security program. The audits are an independent evaluation of work areas, activities, processes, items and documentation to provide an objective evaluation of compliance with established requirements and to determine the adequacy of the program implementation. Members of the audit team typically include security experts and/or security members from other power plants.

Findings, problems or concerns identified during observations, assessments and audits are documented on a PVAR, and entered into the site CAP.

In addition to the formal assessments conducted by NAD, the Palo Verde Security Department conducts, on an average, two self-assessments annually. These self-assessments are used to evaluate selected areas of the Security program and utilize attributes similar to those of an audit. In conjunction with the self-assessments, routine drills are performed to assess security officers' response during various security activities such as: alarm response, check point challenge, and ingress challenge drills.

NRC Question 6

How are self-assessment findings and relevant operating experience information communicated to the security force? Please describe those processes including, but not limited to, information such as the criteria by which such information is identified, the frequency of such communications, the responsible department(s) or position(s) for such communications, and the recipients of such communications.

Please include the following information in your response:

Please describe the process including, but not limited to: (1) formal or informal communication methods; (2) procedures that ensure availability of the policy to staff; and (3) training opportunities for staff to read and understand the policy.

APS Response to NRC Question 6

The Performance Improvement Team is responsible for screening and evaluating Industry Operating Experience (IOE) information and initiation of actions to incorporate lessons learned from the industry into plant design, programs, or operating practices in order to improve plant safety and reliability. Guidance for the IOE process is described in procedure 65DP-0QQ01, "Industry Operating Experience Review." Assessments are conducted per 01DP-0AP16, "PVNGS Self-Assessment and Benchmarking," to evaluate the effectiveness and sustainability of the actions taken to prevent reoccurrence of industry operating experience at Palo Verde Nuclear Generating Station.

This review, relevant to the PVNGS Security Force, includes:

- Adverse security related issues identified and entered into the site Corrective Action Program (CAP) which occurred at PVNGS
- Low tier Industry Operating Experience obtained from the Institute of Nuclear Power Operations (INPO) Operating Experience (OE) digest or Operating Experience messages. A package is prepared for Site Advocates to review weekly. They screen the industry low tier OE and disposition to the applicable department for evaluation and development of actions to prevent reoccurrence at Palo Verde

- High tiered Industry Operating Experience obtained from 10 CFR Part 21 notifications, NRC Information Notices, NRC Regulatory Issue Summaries (RIS), INPO Significant Operating Experience Reports (SOER), INPO Significant Event Reports (SER), INPO Significant Event Notifications (SEN), and INPO Topical Reports (TR).

The OE is evaluated for applicability and entered into the site CAP. Applicable high tiered operating experience is evaluated for required actions to prevent reoccurrence and actions items are developed and assigned to line department subject matter experts to track completion of these actions. Performance Indicators are established to measure the timeliness and quality of these evaluations.

In general, operating experience and/or assessment results are disseminated through shift briefings. The shift briefings are conducted daily and are used to convey information to Security personnel expeditiously. Shift briefings are generally conducted by the Security Section Leader or Team Leader and are documented in shift briefing attendance sheets. In addition to using the shift briefings as a forum to communicate information, e-mails with attached operating experience or assessment reports are used to help reiterate the subject discussed during a shift briefing.

In addition to the shift briefing, Security personnel attend training developed by the Emergency Services Training Group six times a year. Training attendance is required and missed training results in personnel disqualification. The scope of the training includes industry events received from the Performance Improvement Team, problems identified by assessments, loggable events at Palo Verde and information obtained from the Homeland Security Information Network, Nuclear Sector, Operating Experience. The training environment allows for more details to be communicated to the Security Officers and allows for an open discussion on the subject. Procedure 20SP-0TR01, "Security Personnel Training" governs this training.

Related to the APS response to Question 5, the NRC requests the following additional information:

NRC Question 7

How do you assess the effectiveness of your oversight of contractors and subcontractors?

Please include the following information in your response:

Please describe the licensees' program for oversight of contractor's and subcontractors including, but not limited to: (1) a brief overview and description of licensee's procedures that describe the oversight process; (2) a detailed list (bulleted is preferred)

of assigned duties for the licensee supervisor(s) or manager(s) responsible for overseeing contractors and subcontractors at the site; (3) a detailed list (bulleted is preferred) of the assigned duties for the contractor and subcontractor supervisor(s) or manager(s) responsible for overseeing the contractor and subcontractor staff at the site; and (4) a brief discussion of the corporate (management) involvement with the oversight of contractors and subcontractors at the site.

APS Response to NRC Question 7

As described in APS' previous response to question 5 of NRC Bulletin 2007-01, PVNGS has a proprietary security force and does not use supplemental contractors/subcontractors for the security force.

With respect to other organizations at Palo Verde who use contractors or subcontractors, APS does not differentiate between licensee employees and contractors or subcontractors in the implementation of access authorization, fitness for duty, behavior observation, or Safety Culture Work Environment (SCWE). APS requires that all contractors and subcontractors granted unescorted access authorization adhere to all site policies and procedures.

Procedure 12DP-0MC45, "Management of Contracts and Supplier Personnel," establishes the requirements to request, develop, and administer all contracting activities for PVNGS, excluding procurement of nuclear fuel. This procedure also defines the roles and responsibilities for the requestor and actions to be taken for a requestor. This procedure defines the requestor as a Department Leader or designee initiating Contract Services, Contractor Labor Personnel, Change Orders or Purchase Order Change Requests.

Once a contract has been initiated, the APS requestor is responsible for the following verifications and actions:

- Verify the job is still scheduled for the specified time
- Verify in-processing activities are complete and/or scheduled
- Schedule, plan, and perform the pre-job brief. This pre-job brief should include:
 - Scope requirements of the contract
 - Procedure and policy use and awareness
 - Compliance to PVNGS Industrial Safety Standards including safety
 - Professional oversight
 - Security requirements and access
 - Radiation protection requirements
 - Roles and responsibilities
 - Site standards and expectations
 - Scope of service
 - Human Performance and Prevent Event Tools

- Safety Conscious Work Environment Principles
- Verify the milestones are completed
- Verify all deliverables are completed and provided to the Company, as applicable
- Verify the Supplier has met the requirements of the Quality Classification for Contract Services and Activities as specified in the Contract Scope of Services.

Once a contract individual's work is complete, the APS requestor is responsible for the following closure actions:

- Coordinate with the appropriate Supplier on release of contractor personnel
- Ensure that the Supplier completes a Contract Personnel/Visitor Exit Checklist
- Provide notification to Security and Access Authorization when a contractor's escorted or unescorted access to the Protected and Vital Areas needs to be terminated
- After notification to Access Authorization is made, a follow-up e-mail to the Badging and Access Authorization Group with an exit checklist must be accomplished within 5 calendar days of notification for a voluntary release and 1 day for release due to any other reason
- The responsible leader must notify Security for terminations that occur on weekends, holidays or backshift
- Individuals who hold current unescorted access to PVNGS as a contractor, and are to be hired as an APS employee (Roll Over), shall have their contractor ACAD and Site Badge terminated. The individual shall be subject to a Pre-Access Drug/Alcohol Screening prior to the APS ACAD being issued and all of the other background screening elements identified in procedure 20DP-0SK39, "PVNGS Badging Procedure," and 20DP-0SK40, "PVNGS Unescorted Access Screening".

Leadership within a contractor and/or subcontractor organization reports to an APS leader. The assigned duties for contractor and subcontractor supervisors or managers listed above may be jointly shared; however, the APS leader is ultimately responsible for carrying out the verifications and actions listed above.

Additionally, PVNGS Policy Guide PG-125, "PVNGS Supplemental Personnel Process," lists additional activities associated with assigning and monitoring work activities of supplemental (contractor and subcontractor) work force personnel, including the following:

- APS discipline leaders are to ensure that supplemental personnel working within their organization are familiar with station policies and procedures and PVNGS Standards and Expectations
- APS discipline leaders are to routinely monitor supplemental personnel performance, trend the information and feed back the results to the supplemental staff

- APS discipline leaders are to routinely conduct and document in-field monitoring and observations of work performed by Supplemental personnel and their Supervisors. Included in these observations are verifications of qualifications for the work being performed by independent workers and verification that dependent workers are briefed prior to commencing work and are observed during in-progress work
- Work activities not conforming to expectation or not conforming to procedure are to be documented in accordance with the CAP and:
 - Results of investigations and corrective actions are to be communicated to the workforce, including supplemental personnel and their Supplemental Supervisors
 - Routine trend analysis of human performance for Supplemental personnel is to be conducted and reported
- APS discipline leaders are to consult with the Nuclear Training Department on specific training requirements, as required
- APS discipline leaders are to identify tasks to be performed by supplemental personnel who require specialized training and qualifications and are to ensure that those personnel are qualified to perform those tasks.