



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 2, 2014

Mr. Randall K. Edington
Executive Vice President Nuclear/
Chief Nuclear Officer
Mail Station 7602
Arizona Public Service Company
P.O. Box 52034
Phoenix, AZ 85072-2034

SUBJECT: PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3 –
REQUEST FOR ADDITIONAL INFORMATION RE: PHYSICAL SECURITY
PLAN, TRAINING AND QUALIFICATION PLAN, AND SAFEGUARDS
CONTINGENCY PLAN (TAC NO. D91660)

Dear Mr. Edington:

By letter dated June 12, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13168A417), Arizona Public Service Company (APS, the licensee) submitted the Palo Verde Nuclear Generating Station Physical Security Plan, Training and Qualification Plan, and Safeguards Contingency Plan, Revision 16. The enclosure to the letter contained Safeguards Information and has been withheld from public disclosure.

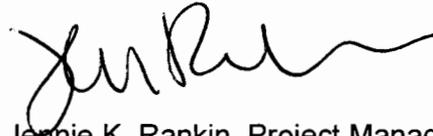
The U.S. Nuclear Regulatory Commission (NRC) staff is currently reviewing the submittal to ensure compliance with paragraph 50.54(p)(2) of Title 10 of the *Code of Federal Regulations* (10 CFR). The NRC staff has determined that the information identified in the enclosed request for additional information (RAI) is needed in order for the NRC staff to complete its review. The draft copy of this request for additional information (RAI) was transmitted on May 2, 2014, and a clarification call was held on May 22, 2014. Mr. Daniel Hautala of APS agreed to provide the response within 60 days from the date of this letter.

R. Edington

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If you have any questions, please contact me at (301) 415-1530 or via e-mail at jennivine.rankin@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jennie Rankin', with a long horizontal flourish extending to the right.

Jennie K. Rankin, Project Manager
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-528, STN 50-529,
and STN 50-530

Enclosure:
As stated

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION

10 CFR 50.54(P)(2) CHANGES TO SECURITY PLAN

ARIZONA PUBLIC SERVICE COMPANY

PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3

DOCKET NOS. STN 50-538, STN 50-529, AND STN 50-530

By letter dated June 12, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13168A417), Arizona Public Service Company (APS, the licensee) submitted the Palo Verde Nuclear Generating Station's Physical Security Plan (PSP), Training and Qualification Plan (T&QP), and Safeguards Contingency Plan (SCP), Revision 16. The enclosure to the letter contained Safeguards Information and has been withheld from public disclosure. The U.S. Nuclear Regulatory Commission (NRC) staff is currently reviewing the submittal to ensure compliance with Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.54(p)(2). The NRC staff has determined that the additional information requested below is needed to complete its review.

1. Sections 11.1, 14.6, and 15.3 of the PSP, as well as Section 7 of the SCP include descriptions of a Security Owner Controlled Area (SOCA) (e.g., physical barrier, access controls and intrusion detection system, and as described support the site's protective strategy as a component of the physical protection program). Each function of the SOCA as implemented must meet specific regulatory requirements consistent with 10 CFR Section 73.55, "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage." How these requirements are implemented must be described in the PSP. The following additional information is requested regarding implementation of the SOCA:

Regulatory Basis

As stated in 73.55(c)(3), Physical Security Plan:

The licensee shall establish, maintain, and implement a Physical Security Plan which describes how the performance objective and requirements set forth in this section will be implemented.

- a. In Section 11.1 of the PSP, please describe how openings in the barrier in this section are secured and monitored to prevent exploitation (e.g., personnel gates, etc.).

Enclosure

Regulatory Basis:

As stated in 10 CFR 73.55(e)(4):

Consistent with the stated function to be performed, openings in any barrier or barrier system established to meet the requirements of this section must be secured and monitored to prevent exploitation of the opening.

- b. Section 14.6 of the PSP describes the method and location “primarily” used to control personnel access into this area (as well as in Section 7 of the SCP, which in part states, “the majority of individuals seeking access”). Please indicate and describe any other methods or locations where personnel and material access into this area are controlled, as well as the locking devices, intrusion detection equipment, surveillance equipment and search procedures associated with these other locations (i.e., not “primarily” used).

Regulatory Basis:

As stated, in part, in 10 CFR 73.55(g)(1):

Consistent with the function of each barrier or barrier system, the licensee shall control personnel, vehicle, and material access, as applicable, at each access control point in accordance with the physical protection program design requirements of § 73.55(b).

(i) To accomplish this, the licensee shall:

(A) Locate access control portals outside of, or concurrent with, the physical barrier system through which it controls access.

(B) Equip access control portals with locking devices, intrusion detection equipment, and surveillance equipment consistent with the intended function.

As stated in 10 CFR 73.55(h)(2), Owner controlled area searches:

(i) Where the licensee has established physical barriers in the owner controlled area, the licensee shall implement search procedures for access control points in the barrier.

- c. Section 15.3 of the PSP describes intrusion detection system technologies utilized at the SOCA perimeter. Section 15.5.1 of the PSP describes an intrusion detection system and closed circuit television system utilized in the OCA. Please describe how the intrusion detection and assessment equipment at the OCA (i.e., SOCA perimeter) provides, at all times, the capability to detect and assess unauthorized persons and facilitate the effective implementation of the protective strategy.

Regulatory Basis

As stated in the 10 CFR 73.55(i)(1):

The licensee shall establish and maintain intrusion detection and assessment systems that satisfy the design requirements of § 73.55(b) and provide, at all times, the capability to detect and assess unauthorized persons and facilitate the effective implementation of the licensee's protective strategy.

- d. Please describe how the intrusion detection and assessment equipment at the SOCA perimeter is designed to annunciate and display concurrently in two continuously staffed onsite alarm stations.

Regulatory Basis

As stated in 10 CFR 73.55(i)(2):

Intrusion detection equipment must annunciate and video assessment equipment shall display concurrently, in at least two continuously staffed onsite alarm stations, at least one of which must be protected in accordance with the requirements of the central alarm station within this section.

- e. Please describe how the intrusion detection and assessment system at the SOCA perimeter is designed to:
 - (1) Provide visual and audible annunciation of the alarm.
 - (2) Provide a visual display from which assessment of the detected activity can be made.
 - (3) Ensure that annunciation of an alarm indicates the type and location of the alarm.
 - (4) Ensure that alarm devices to include transmission lines to annunciators are tamper indicating and self-checking.
 - (5) Provide an automatic indication when the alarm system or a component of the alarm system fails, or when the system is operating on the backup power supply.
 - (6) Support the initiation of a timely response in accordance with the security plans, licensee protective strategy, and associated implementing procedures.

Regulatory Basis

As stated in 10 CFR 73.55(i)(3)(i) through (i)(3)(vi):

The licensee's intrusion detection and assessment systems must be designed to:

- (i) Provide visual and audible annunciation of the alarm.
 - (ii) Provide a visual display from which assessment of the detected activity can be made.
 - (iii) Ensure that annunciation of an alarm indicates the type and location of the alarm.
 - (iv) Ensure that alarm devices to include transmission lines to annunciators are tamper indicating and self-checking.
 - (v) Provide an automatic indication when the alarm system or a component of the alarm system fails, or when the system is operating on the backup power supply.
 - (vi) Support the initiation of a timely response in accordance with the security plans, licensee protective strategy, and associated implementing procedures.
- f. Please describe the illumination methods and technologies utilized at the SOCA perimeter that provides the illumination necessary to satisfy the design requirements of Section 73.55(b) and implement the protective strategy.

Regulatory Basis

As stated in 10 CFR 73.55(i)(6)(i):

The licensee shall ensure that all areas of the facility are provided with illumination necessary to satisfy the design requirements of § 73.55(b) and implement the protective strategy.

- g. Please describe how the implementation of the SOCA barrier and associated equipment and systems (e.g., intrusion detection and assessment, access controls, etc.) are included in security program reviews.

Regulatory Basis

As stated in 10 CFR 73.55(m)(1):

As a minimum the licensee shall review each element of the physical protection program at least every 24 months.

- h. Please describe how the SOCA barrier and associated equipment and systems (e.g., intrusion detection and assessment, access controls, etc.) are included in the site maintenance, testing and calibration program as well as the intervals that the systems and equipment are tested for operability and performance.

Regulatory Basis

As stated in 10 CFR 73.55(n)(1):

The licensee shall:

- (i) Establish, maintain and implement a maintenance, testing and calibration program to ensure that security systems and equipment, including secondary power supplies, are tested for operability and performance at predetermined intervals, maintained in operable condition, and are capable of performing their intended functions.
- i. Please describe the compensatory measures that are implemented when the SOCA barrier and associated equipment and systems (e.g., intrusion detection and assessment, access controls, etc.) fails or becomes degraded.

Regulatory Basis

As stated in 10 CFR 73.55(o)(1):

The licensee shall identify criteria and measures to compensate for degraded or inoperable equipment, systems, and components to meet the requirements of this section.

- 2. Please describe the delegation of duties that occurs before the Security Operations Section Leader (SOSL) assumes the duties as indicated in Section 4.1.2 of the SCP. In addition, based on the assumption of duties in Section 4.1.2 of the SCP, the SOSL is not identified in Section 3.3 and Table 1: Critical Task Matrix (CTM) of the T&QP as being trained, qualified, and equipped to perform these duties (e.g., Task 21). Please indicate the training, qualifications, and equipment consistent with the duties and responsibilities of the SOSL position and any other security-related delegated duties (i.e., Section 4.1.2 of the SCP).

Regulatory Basis

As stated in 10 CFR 73.55(d)(2)(ii), the security organization must include:

At least one member, onsite and available at all times, who has the authority to direct the activities of the security organization and who is assigned no other duties that would interfere with this individual's ability to perform these duties in accordance with the security plans and the licensee protective strategy.

As stated, in part, in 10 CFR 73.55(d)(3):

The licensee may not permit any individual to implement any part of the physical protection program unless the individual has been trained, equipped, and qualified to perform their assigned duties and responsibilities in accordance with appendix B, section VI to this part and the Training and Qualification Plan.

Consistent with 10 CFR 73 Appendix B VI.C, Duty Training:

1. Duty Training and qualifications requirements. All personnel who are assigned to perform any security-related duty or responsibility shall be trained and qualified to perform assigned duties and responsibilities to ensure that each individual possesses the minimum knowledge, skills, and abilities required to effectively carry out those assigned duties and responsibilities.

(a) The areas of knowledge, skills and abilities that are required to perform assigned duties and responsibilities must be identified in the licensee's Commission-approved training and qualification plan.

(b) Each individual who is assigned duties and responsibilities identified in the Commission-approved security plans, licensee protective strategy, and implementing procedures shall, before assignment:

(1) Be trained to perform assigned duties and responsibilities in accordance with the requirements of this appendix and the Commission-approved training and qualification plan.

(2) Meet the minimum qualification requirements of this appendix and the Commission-approved training and qualification plan.

(3) Be trained and qualified in the use of all equipment or devices required to effectively perform all assigned duties and responsibilities.

3. The position of Armed Security Officer (ASO) is not identified as being trained and qualified on Task 20 in Table 1: CTM of the T&QP. However, the position of ASO is described in Section 18 of the PSP and Sections 4.1.1 and 5.2 of the SCP, as performing duties and responsibilities consistent with duties and responsibilities associated with Task 20. Please indicate whether the position of ASO is trained and qualified on duties and responsibilities consistent with Task 20 or that the position of ASO is not required to perform the duties described in Section 18 of the T&QP and Sections 4.1.1 and 5.2 of the SCP.

Regulatory Basis

Consistent with 10 CFR 73 Appendix B VI.C, Duty Training:

1. Duty Training and qualifications requirements. All personnel who are assigned to perform any security-related duty or responsibility shall be trained and qualified to perform assigned duties and responsibilities to ensure that each individual possesses the minimum knowledge, skills, and abilities required to effectively carry out those assigned duties and responsibilities.
 - (a) The areas of knowledge, skills and abilities that are required to perform assigned duties and responsibilities must be identified in the licensee's Commission-approved training and qualification plan.
 - (b) Each individual who is assigned duties and responsibilities identified in the Commission-approved security plans, licensee protective strategy, and implementing procedures shall, before assignment:
 - (1) Be trained to perform assigned duties and responsibilities in accordance with the requirements of this appendix and the Commission-approved training and qualification plan.
 - (2) Meet the minimum qualification requirements of this appendix and the Commission-approved training and qualification plan.
 - (3) Be trained and qualified in the use of all equipment or devices required to effectively perform all assigned duties and responsibilities.
4. In Section 11.2.1 of the PSP, please describe how the active barriers in this section are placed in the denial position to prevent unauthorized vehicle access beyond the required standoff distance in the event of a power failure.

Regulatory Basis:

As stated in 10 CFR 73.55(e)(10)(i)(B), licensees shall perform the following:

- Periodically check the operation of active vehicle barriers and provide a secondary power source, or a means of mechanical or manual operation in the event of a power failure, to ensure that the active barrier can be placed in the denial position to prevent unauthorized vehicle access beyond the required standoff distance.
5. In Section 11.2.2 of the PSP, please describe how the active barriers in this section are placed in the denial position to prevent unauthorized vehicle access beyond the required standoff distance in the event of a power failure.

Regulatory Basis:

As stated in 10 CFR 73.55(e)(10)(i)(B), licensees shall perform the following:

Periodically check the operation of active vehicle barriers and provide a secondary power source, or a means of mechanical or manual operation in the event of a power failure, to ensure that the active barrier can be placed in the denial position to prevent unauthorized vehicle access beyond the required standoff distance.

6. Figure 2 of the PSP (page 43) identifies two separate areas with isolation zones. Please explain whether both of these areas are intended to meet the definition of an isolation zone in accordance with 10 CFR 73.2 and the requirements of an isolation zone in accordance with 10 CFR 73.55(e)(7).
7. In Appendix A (page A-8), the definition of Response Team Leader is missing. This is not consistent with NEI 03-12 template.
8. In Section 2.4 of the T&QP, please indicate whether a simulated contingency weapon is carried or slung for the physical fitness test by armed members of the security organization responsible for implementing the licensee's protective strategy.

Regulatory Basis:

As stated, in part, in 10 CFR 73 Appendix B VI.B.4, Medical examinations and physical fitness qualifications:

(b) Before assignment, armed members of the security organization shall demonstrate physical fitness for assigned duties and responsibilities by performing a practical physical fitness test.

(1) The physical fitness test must consider physical conditions such as strenuous activity, physical exertion, levels of stress, and exposure to elements as they pertain to each individual's assigned security duties for both normal and emergency operations and must simulate site specific conditions under which the individual will be required to perform assigned duties and responsibilities.

(3) The physical fitness test must include physical attributes and performance objectives which demonstrate the strength, endurance, and agility, consistent with assigned duties in the Commission-approved security plans, licensee protective strategy, and implementing procedures during normal and emergency conditions.

9. Section 18 of the PSP describes the minimum number of armed security officers designated to strengthen onsite response capabilities. Section 7 of the SCP provides additional information regarding security shift staffing. Please indicate which armed security officers listed in Section 7 of the SCP are the armed security officers designated

to strengthen the onsite response consistent with the description provided in Section 18 of the PSP.

Regulatory Basis:

As stated, in part, in 10 CFR 73.55(c), Security plans:

(1) Licensee security plans must describe:

(i) How the licensee will implement requirements of this section through the establishment and maintenance of a security organization, the use of security equipment and technology, the training and qualification of security personnel, the implementation of predetermined response plans and strategies, and the protection of digital computer and communication systems and networks.

As stated in 10 CFR 73.55(k)(4):

The licensee shall provide armed response personnel consisting of armed responders which may be augmented with armed security officers to carry out armed response duties within predetermined timelines specified by the site protective strategy.

R. Edington

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If you have any questions, please contact me at (301) 415-1530 or via e-mail at jennivine.rankin@nrc.gov.

Sincerely,

/RA/

Jennie K. Rankin, Project Manager
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-528, STN 50-529,
and STN 50-530

Enclosure:
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