



A subsidiary of Pinnacle West Capital Corporation

10 CFR 50.73

Palo Verde Nuclear  
Generating Station

Dwight C. Mims  
Vice President  
Regulatory Affairs and Plant Improvement

Tel. 623-393-5403  
Fax 623-393-6077

Mail Station 7605  
P. O. Box 52034  
Phoenix, Arizona 85072-2034

102-06032-DCM/DFH  
July 13, 2009

ATTN: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Dear Sirs:

**Subject: Palo Verde Nuclear Generating Station (PVNGS) Units 1, 2 and 3  
Docket No. STN 50-528, 50-529 and 50-530  
License No. NPF-41, NPF-51 and NPF-74  
Licensee Event Report 2009-003-00**

Enclosed, please find Licensee Event Report (LER) 50-528/2009-003-00 that has been prepared and submitted pursuant to 10 CFR 50.73. This LER reports a condition where PVNGS did not fully meet the requirements of Technical Specification Surveillance Requirement 3.8.9.1. Specifically, the correct supply breaker alignment for the Class 1E 125 VDC distribution panels was not verified.

In accordance with 10 CFR 50.4, copies of this LER are being forwarded to the Nuclear Regulatory Commission (NRC) Regional Office, NRC Region IV and the Senior Resident Inspector. If you have questions regarding this submittal, please contact James Proctor, Section Leader, Regulatory Affairs, at (623) 393-5730.

Arizona Public Service Company makes no commitments in this letter.

Sincerely,

DCM/JAP/DFH/gat

Enclosure

cc: E. E. Collins Jr. NRC Region IV Regional Administrator  
J. R. Hall NRC NRR Project Manager - (send electronic and paper)  
R. I. Treadway NRC Senior Resident Inspector for PVNGS

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### LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/PriVacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to [infocollects@nrc.gov](mailto:infocollects@nrc.gov), and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

1. FACILITY NAME Palo Verde Nuclear Generating Station (PVNGS) Unit 1	2. DOCKET NUMBER 05000528	3. PAGE 1 OF 5
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4. TITLE  
Surveillance Test Procedure Inadequate to Meet the Requirements of TS

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
05	13	2009	2009	- 003 -	00	07	13	2009	PVNGS Unit 2	05000529
									PVNGS Unit 3	05000530

9. OPERATING MODE  1 / 1 / 5	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: (Check all that apply)										
10. POWER LEVEL  100 / 100 / 0	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)							
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)							
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)							
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)							
	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)							
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)							
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)							
	<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER							
	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A							

**12. LICENSEE CONTACT FOR THIS LER**

FACILITY NAME James Proctor, Section Leader, Regulatory Affairs	TELEPHONE NUMBER (Include Area Code) 623-393-5730
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**13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT**

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED <input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On May 13, 2009, Palo Verde engineers discovered Surveillance Requirement (SR) 3.8.9.1 was not completely implemented in Surveillance Test (ST) procedure 40ST-9ZZ05, "Weekly Electrical Distribution Checks." The procedure did not verify the supply breaker alignment for the Class 1E 125 VDC distribution panels (PKA-D21, PKB-D22, PKC-D23 and PKD-D24) as required by Technical Specification (TS) Bases Table 3.8.9-1. As a result, all three Palo Verde units entered SR 3.0.3.

Procedure 40ST-9ZZ05 was revised later the same day to include verification of the breaker position for the Class 1E 125 VDC distribution panels. The revised procedure was performed in all three units satisfying SR 3.8.9.1 and each unit exited SR 3.0.3. Investigation of this event determined the condition has existed since the implementation of the Palo Verde Improved Technical Specifications (ITS) on August 13, 1998, when the Class 1E distribution panels were added to TS Bases Table 3.8.9-1. The cause of the event was a lack of technical rigor when implementing the ITS.

One similar event was reported by PVNGS in the past three years in LER 50-528/2007-003 where a monthly valve alignment did not adequately meet its intent to satisfy TS-SR.

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		2009	-- 003	-- 00	

17. NARRATIVE (If more space is required, use additional copies of NRC Form 366A)

All times are Mountain Standard Time and approximate unless otherwise indicated.

1. REPORTING REQUIREMENT(S):

This LER is being submitted pursuant to 10 CFR 50.73 (a)(2)(i)(B) as a condition prohibited by Technical Specification (TS) when the Palo Verde Nuclear Generating Station (PVNGS) Units 1, 2, and 3 discovered that the requirements of Technical Specification Surveillance Requirement (TSSR) 3.8.9.1 for performing weekly electrical distribution checks were not met.

2. DESCRIPTION OF STRUCTURE(S), SYSTEM(S) AND COMPONENT(S):

The Class 1E 125 VDC systems (EIS Code: EJ) are located in the control building and are made up of two trains (A and B) of four independent channels (A, B, C and D). Channels A and C are designated as Train A and Channels B and D are designated as Train B. Each channel contains a battery bank, a battery charger, a control center, and a distribution panel. These components are the subsystem components that make up the Class 1E 125 VDC distribution system that ensures the required voltage is readily available for electrical power as well as control functions for critical system loads connected to these buses.

3. INITIAL PLANT CONDITIONS:

On May 13, 2009, Palo Verde Units 1 and 2 were in Mode 1 (Power Operation), at 100 percent power, at normal operating temperature (NOT) and normal operating pressure (NOP). Unit 3 was in Mode 5 (Cold Shutdown), being returned to service from a refueling outage. There were no structures, systems, or components inoperable at the time of the event that contributed to the event.

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4. EVENT DESCRIPTION:

On May 13, 2009, the Palo Verde Component Design Basis Review (CDBR) Team discovered Surveillance Requirement (SR) 3.8.9.1 was not completely implemented by surveillance test procedure 40ST-9ZZ05 Rev. 12, Weekly Electrical Distribution Checks. Specifically, the surveillance test procedure did not contain checks that verified correct supply breaker alignment for the Class 125 VDC distribution panels PKA-D21, PKB-D22, PKC-D23 and PKD-D24 as required by TS Bases table 3.8.9-1.

Upon discovery of the condition, notification was made to Operations and Engineering management. At 15:10 Mountain Standard Time (MST) all three Units entered SR 3.0.3 for a missed surveillance, thereby permitting time to correct the identified deficiency prior to implementation of the Limiting Condition for Operation (LCO) action. Entry into SR 3.0.3 establishes up to a 24 hour period or up to the limit of the specified surveillance test frequency to defer declaring the LCO is not met when a SR has not been completed within the specified frequency. This delay period permits the completion of a SR before complying with required actions or other remedial measures.

To meet the requirements of SR 3.8.9.1, a procedure change to 40ST-9ZZ05 was issued providing instructions to verify the DC distribution panels supply breakers were closed. The surveillance test was performed successfully, satisfying Surveillance Requirement 3.8.9.1 and each unit exited SR 3.0.3 (Unit 1 on May 13, 2009, at 23:10 MST, Unit 2 and 3 on May 14, 2009, at 02:38 MST and 03:20 MST respectively). It was determined during the course of this investigation that the condition has existed since the implementation of Improved Technical Specifications on August 13, 1998.

5. ASSESSMENT OF SAFETY CONSEQUENCES:

The AC, DC, and AC vital instrument bus electrical power distribution systems are designed to provide sufficient capacity, capability, redundancy, and reliability to ensure the availability of power to Engineering Safety Function (ESF) systems so that the fuel, reactor coolant system, and containment design limits are not exceeded. The safety significance of not verifying the distribution panel (PKA-D21, PKB-D22, PKC-D23, and PKD-D24) supply breakers were in the closed position is minimal. Each panel has an associated

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alarm window and alarm point that will indicate when the supply breaker is opened. Once the alarm is received, Operators would take action as defined in the alarm response procedure. Additionally, numerous other alarms in the control room would be illuminated if these distribution panels were without power.

The event did not result in a transient more severe than those previously analyzed in the PVNGS UFSAR, Chapter 15. There are no actual safety consequences as a result of this condition; the condition would not have prevented the fulfillment of the safety function; and, the condition did not result in a safety system functional failure as defined by 10 CFR 50.73 (a)(2)(v).

6. CAUSE OF THE EVENT:

The direct cause of the event was an inadequate Surveillance Test procedure that did not verify the position of the Class IE 125 VDC PKA-D21, PKB-D22, PKC-D23, and PKD-D24 distribution panel supply breakers. It was determined during the course of this investigation that the condition has existed since the implementation of Improved Technical Specifications on August 13, 1998. This change altered table 3.8.9-1 to incorporate the DC distribution panels. All other components noted in the table had already been included and verified during the performance of 40ST-9ZZ05.

The apparent cause was determined to be that inadequate technical rigor was used when implementing the Improved Technical Specification (ITS).

7. CORRECTIVE ACTIONS:

The following corrective actions were or will be implemented for all three units:

- A procedure change was implemented for 40ST-9ZZ05 providing instructions to verify the DC distribution panels supply breakers were closed.
- 40ST-9ZZ05 was successfully completed for all three units and TS SR 3.0.3 was exited shortly after completion of the required surveillance.

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- 01AP-0AP01, Procedure Process, was revised to clearly define the roles and responsibilities of the organizations reviewing changes to station procedures.

In addition to the above actions, a Component Design Basis Review (CDBR) project is currently in progress to identify and correct latent design basis deficient conditions.

8. PREVIOUS SIMILAR EVENTS:

There was one similar event reported in LER 50-528/2007-003 where Auxiliary Feedwater Pump AFA-P01 Monthly Valve Alignment did not adequately meet its intent to satisfy TS Surveillance Requirement (SR) 3.7.5.1 for position verification of the steam admission bypass valves to Auxiliary Feedwater (AFW) Pump AFA-P01. Similar to the event described in this LER, the condition was the failure to incorporate the new SR into the ST procedure.