



A subsidiary of Pinnacle West Capital Corporation

10 CFR 50.54(f)

Palo Verde Nuclear
Generating Station

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102-05697-DCM/DLK
May 03, 2007

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 Nos. STN 50-528/529/530
90 Day Response to NRC Generic Letter 2007-01, "Inaccessible or
Underground Power Cable Failures That Disable Accident Mitigation
Systems or Cause Plant Transients"**

On February 7, 2007, the NRC issued Generic Letter (GL) 2007-01, "Inaccessible or Underground Power Cable Failures That Disable Accident Mitigation Systems or Cause Plant Transients." Enclosed is the response from Arizona Public Service Company (APS) to the information request in GL 2007-01 for PVNGS Units 1, 2, and 3.

There are no commitments made to the NRC by this letter. If you have any questions, please contact Daniel G. Marks at (623) 393-6492.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 5/03/07.

Sincerely,

DCM/TNW/DLK/gat

Enclosure: 90 Day Response to Generic Letter 2007-01, "Inaccessible or Underground Power Cable Failures That Disable Accident Mitigation Systems or Cause Plant Transients"

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cc: B. S. Mallett NRC Region IV Regional Administrator
M. T. Markley NRC NRR Project Manager
G. G. Warnick NRC Senior Resident Inspector for PVNGS

ENCLOSURE

90 Day Response to Generic Letter 2007-01, "Inaccessible or Underground Power Cable Failures That Disable Accident Mitigation Systems or Cause Plant Transients"

NRC Request 1

Provide a history of inaccessible or underground power cable failures for all cables that are within the scope of 10 CFR 50.65 (the Maintenance Rule) and for all voltage levels. Indicate the type, manufacturer, date of failure, type of service, voltage class, years of service, and the root causes for the failure.

APS Response 1

A review was performed of the maintenance history of inaccessible or underground power cables that are within the scope of the Maintenance Rule at Palo Verde Nuclear Generating Station (PVNGS). While no in-service power cables failures were found, the review identified two power cable dielectric strength test failures. Table 1 below contains the information requested as well as additional information on failure type, component supported and cable identifier. The cables described in Table 1 were reworked in 1991 in accordance with the PVNGS corrective action program. In 1994, the Unit 3 essential spray pond header inlet and essential spray pond header bypass valves were converted from motor operated valves to manually actuated valves and the associated power cables were de-terminated and designated as spares. The corrective action and reference documents associated with these cable failures and plant changes are MNCR 90-SP-0010, CMWO 00456263, CMWO 00456854, and LDGP 3-LE-SP-067. Subsequently, this plant change was performed on Units 1 and 2.

Table 1 - PVNGS Inaccessible or Underground Power Cable Failures

Failure #	Failure Type (in-service/testing)	Cable Type (Insulation Type)	Cable Type (Shielded, Yes/No)	Cable Manufacturer	Date of Failure	Type of Service (energized/De-energized)
1	Testing	XLPE	No	Brand-Rex	11/09/1990	De-energized
2	Testing	XLPE	No	Brand-Rex	11/09/1990	De-energized

Table 1 (Cont.) - PVNGS Inaccessible or Underground Power Cable Failures

Failure #	Component Supported	Cable Identifier	Voltage Class (nominal service voltage)	Voltage Class (cable rating voltage)	Years of Service Prior to Failure	Root Causes for the Failure (apparent cause)
1	Essential spray pond header inlet MOV 3JSPBHV50A	3ESP06BC 1KA	480 VAC	600 VAC	5+	Moisture Intrusion
2	Essential spray pond header bypass MOV 3JSPBHV50B	3ESP07BC 1KA	480 VAC	600 VAC	5+	Moisture Intrusion

In addition, while not directly related to cable/jacket insulation degradation, PVNGS has experienced dielectric strength test failures of degraded cable splices on power cables in manholes. The cable splices were reworked in accordance with the PVNGS corrective action program.

NRC Request 2

Describe inspection, testing and monitoring programs to detect the degradation of inaccessible or underground power cables that support EDGs, offsite power, ESW, service water, component cooling water and other systems that are within the scope of 10 CFR 50.65 (the Maintenance Rule).

APS Response 2

Arizona Public Service Company (APS) does not currently perform diagnostic cable testing at PVNGS to detect the degradation of inaccessible or underground power cables that support EDGs, offsite power, ESW, service water, component cooling water and other systems that are within the scope of 10 CFR 50.65 (the Maintenance Rule).

APS periodically inspects and de-waters electrical manholes to minimize the time cables are subjected to being submerged in water. This is designed to reduce the rate of any potential insulation degradation.

In addition to the current periodic inspections, and maintenance practices, APS continues to stay informed of new technologies, and will evaluate the new technologies for implementation as additional information becomes available.