



A subsidiary of Pinnacle West Capital Corporation

Palo Verde Nuclear
Generating Station

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102-05962-DCM/SAB/SWC
February 24, 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 and 3
Docket Nos. STN 50-528, 50-530
License Nos. NPF-41, NPF-74
Special Reports 1-SR-2009-001-00, 3-SR-2009-001-00**

Attached please find Special Reports 1-SR-2009-001-00 and 3-SR-2009-001-00, which are prepared and submitted pursuant to PVNGS Offsite Dose Calculation Manual (ODCM) requirements. These reports discuss the inoperability of fuel building ventilation system high range radioactive gaseous effluent monitors for more than seventy-two (72) hours.

The attached Special Reports were not submitted within the 30 day time period required by the ODCM and this has been entered into the PVNGS Corrective Action Program.

By copy of this letter and the attachments, this report is being provided to the NRC Region IV Administrator and the PVNGS Resident Inspector.

No commitments are being made to the NRC by this letter.

Should you need further information regarding this submittal, please contact Russell Stroud, Licensing Section Leader, at (623) 393-5111.

Sincerely,

DCM/RAS/SWC/gat

Special Reports 1-SR-2009-001-00, 3-SR-2009-001-00
U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Page 2

Attachments:

1. Special Report 1-SR-2009-001-00, Fuel Building Ventilation System High Range Radioactive Gaseous Effluent Monitor Inoperable
2. Special Report 3-SR-2009-001-00, Fuel Building Ventilation System High Range Radioactive Gaseous Effluent Monitor Inoperable

cc: (with attachments)

E. E. Collins Jr.	NRC Region IV Regional Administrator
J. R. Hall	NRC NRR Project Manager
R. I. Treadway	NRC Senior Resident Inspector for Palo Verde

Attachment 1

Special Report 1-SR-2009-001-00

**Fuel Building Ventilation System High Range
Radioactive Gaseous Effluent Monitor Inoperable**

Attachment 1

Palo Verde Nuclear Generating Station

Special Report 1-SR-2009-001-00

Fuel Building Ventilation System High Range Radioactive Gaseous Effluent Monitor Inoperable

Docket No. STN 50-528, Unit 1

Reporting Requirement:

The PVNGS Offsite Dose Calculation Manual (ODCM) includes operability requirements for radioactive gaseous effluent monitoring instrumentation in Section 2.1, "Requirements: Gaseous Monitors." Action 42 for Table 2-1, Item 5, "Fuel Building Ventilation System," specifies that when the number of OPERABLE High Range Monitors is less than required by the Minimum Channels OPERABLE requirement, and the required monitor is not restored to OPERABLE status within 72 hours, then the associated actions are to:

- a) Initiate the Preplanned Alternate Sampling Program to monitor the appropriate parameter(s) when it is needed.
- b) Prepare and submit a Special Report to the Commission within 30 days following the event outlining the action(s) taken, the cause of the inoperability, and the plans and schedule for restoring the system to OPERABLE status.

Initial Conditions:

At approximately 1607 MST on October 22, 2008, PVNGS Unit 1 was in a refueling outage, with the core off-loaded to the spent fuel pool when the fuel building ventilation system high range radioactive gaseous effluent monitor (RU-146) was declared inoperable due to its power supply (PNB-D26) and inverter (PNB-N12) being removed from service for planned maintenance.

The 72-hour period for returning the monitor to an OPERABLE status, as identified in ODCM Requirement 2.1, ACTION 42(b), expired at 1607 MST on October 25, 2008, and the required monitor had not been restored to OPERABLE status.

Actions Taken:

The Preplanned Alternate Sampling Program in Unit 1 for RU-146 to monitor the fuel building ventilation system was initiated pursuant to the ODCM Requirement 2.1, ACTION 42(a) on October 25, 2008, at approximately 1607 MST. On October 30,

Attachment 1

Palo Verde Nuclear Generating Station

Special Report 1-SR-2009-001-00

2008, at approximately 1201 MST, RU-146 was declared OPERABLE following restoration of power and satisfactory performance of applicable channel checks.

Cause of the Inoperability:

There was no monitor malfunction associated with the inoperability of RU-146. The cause for exceeding the 72 hours allowed by ODCM 2.1, Action 42(b), was component failures discovered during planned maintenance on bus PBB-S04 and its associated inverters, PNB-N12 and PND-N14. The maintenance to inspect and adjust each inverter takes an estimated 48 hours. An additional complication in this instance was that four Silicon-Controlled Rectifiers (SCRs) on PND-N14 failed during testing and had to be replaced. Due to bus alignments, inverter PNB-N12 (and associated monitor RU-146) remained out of service until the SCR replacements on PND-N14 were completed. The cumulative effect of the maintenance performed on the inverters resulted in RU-146 being out of service for approximately 187 hours and 54 minutes.

Plans and Schedule for Restoring the Channels to OPERABLE Status:

On October 30, 2008 at approximately 1201 MST, RU-146 in Unit 1 was declared OPERABLE following restoration of power and satisfactory performance of applicable channel checks.

Attachment 2

Special Report 3-SR-2009-001-00

**Fuel Building Ventilation System High Range
Radioactive Gaseous Effluent Monitor Inoperable**

Attachment 2

Palo Verde Nuclear Generating Station

Special Report 3-SR-2009-001-00

Fuel Building Ventilation System High Range Radioactive Gaseous Effluent Monitor Inoperable

Docket No. STN 50-530, Unit 3

Reporting Requirement:

The PVNGS Offsite Dose Calculation Manual (ODCM) includes operability requirements for radioactive gaseous effluent monitoring instrumentation in Section 2.1, "Requirements: Gaseous Monitors." Action 42 in Table 2-1, Item 5, "Fuel Building Ventilation System," specifies that when the number of OPERABLE High Range Monitors is less than required by the Minimum Channels OPERABLE requirement, and the required monitor is not restored to OPERABLE status within 72 hours, then the associated actions are to:

- a) Initiate the Preplanned Alternate Sampling Program to monitor the appropriate parameter(s) when it is needed.
- b) Prepare and submit a Special Report to the Commission within 30 days following the event outlining the action(s) taken, the cause of the inoperability, and the plans and schedule for restoring the system to OPERABLE status.

Initial Conditions:

At approximately 1958 MST on November 15, 2007, PVNGS Unit 3 was in a refueling outage, with the core off-loaded to the spent fuel pool when the fuel building ventilation system high range radioactive gaseous effluent monitor (RU-146) was declared inoperable due to its power supply (PNB-D26) and inverter (PNB-N12) being removed from service for planned maintenance.

The 72-hour period for returning the monitor to an OPERABLE status, as identified in ODCM Requirement 2.1, ACTION 42(b), expired at 1958 MST on November 18, 2007, and the required monitor had not been restored to OPERABLE status.

Actions Taken:

The Preplanned Alternate Sampling Program in Unit 3 for RU-146 to monitor the fuel building ventilation system was initiated pursuant to the ODCM Requirement 2.1, ACTION 42(a) on November 18, 2007, at approximately 1958 MST. On November 21, 2007, at approximately 1214 MST, RU-146 was declared OPERABLE following restoration of power and satisfactory performance of applicable channel checks.

Attachment 2

Palo Verde Nuclear Generating Station

Special Report 3-SR-2009-001-00

Cause of the Inoperability:

There was no monitor malfunction associated with the inoperability of RU-146. The cause for exceeding the 72 hours allowed by ODCM 2.1, Action 42(b), was equipment problems encountered during planned maintenance on inverter PNB-N12, which provides power to monitor RU-146 through power supply PNB-D26. While performing testing activities per 32MT-9ZZ58, "Preventive Maintenance of Inverters," issues were encountered with inverter PNB-N12 which required adjustments to be made to the static switch. These adjustments delayed returning the bus to service within the scheduled timeframe. The cumulative effect of the maintenance performed on the inverter resulted in RU-146 being out of service for approximately 136 hours and 16 minutes.

Plans and Schedule for Restoring the Channels to OPERABLE Status:

On November 21, 2007, at approximately 1214 MST, RU-146 in Unit 3 was declared OPERABLE following restoration of power and satisfactory performance of applicable channel checks.