



Palo Verde Nuclear
Generating Station

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U. S. Nuclear Regulatory Commission
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Dear Sirs:

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Unit 1
Docket No. STN 50-528
License No. NPF-41
Special Report 1 SR-98-002

Attached please find Special Report 1-SR-98-002 prepared and submitted pursuant to Technical Specification (TS) 3.3.3.1 ACTION 28 and TS 6.9.2. This report discusses the inoperability of the Post Accident Sampling System for more than seven (7) days.

In accordance with TS 6.9.2, a copy of this Special Report is being forwarded to the Regional Administrator, NRC Region IV. If you have any questions, please contact Daniel G. Marks, Section Leader, Palo Verde Regulatory Affairs, at (602) 393-6492.

Sincerely,

GRO/DGM/DLK/mah

Attachments

cc: E. W. Merschoff (all with attachments)
J. H. Moorman
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PALO VERDE NUCLEAR GENERATING STATION UNIT 1

Post Accident Sampling System

License No. NPF-41

Docket No. STN 50-528

Special Report 1-SR-98-002

PALO VERDE NUCLEAR GENERATING STATION UNIT 1

Post Accident Sampling System

License No. NPF-41

Docket No. STN 50-528

Special Report 1-SR-98-001

Initial Conditions:

At approximately 2137 MST on July 15, 1998, Palo Verde Unit 1 was in Mode 1 (POWER OPERATION) operating at approximately 100 percent power when the Post Accident Sampling System (PASS) was declared inoperable. The seven (7) day period for returning the PASS to operable status in accordance with Technical Specification (TS) 3.3.3.1 Action 28 expired at approximately 2137 MST on July 22, 1998. This Special Report is being submitted pursuant to Technical Specification Limiting Condition For Operation (TS LCO) 3.3.3.1 and TS 6.9.2 to report the inoperability of the PASS for more than seven (7) days.

System Information:

The PASS is a subsystem of the Nuclear Sampling System designed to deliver a representative pressurized and depressurized reactor coolant and containment atmosphere sample under post accident conditions to the remote grab sampler. The PASS is capable of sampling during normal plant operating conditions to demonstrate system operability.

Actions Taken

On July 15, 1998, during routine monthly surveillance testing of the PASS in accordance with TS surveillance requirement 4.3.3.1, the Offgas Flush/Purge Control handswitch HS0101 failed. Operations personnel declared the PASS inoperable at approximately 2137 MST on July 15, 1998. The handswitch was replaced and post maintenance retesting was initiated.

At approximately 2230 MST on July 16, 1998, while testing the replaced handswitch, the PASS system overpressurized and a leak occurred in the low-pressure section of the PASS at pressure indicator PI0019. Troubleshooting activities identified a backpressure regulator (PCV0019) and a liquid sample valve (HV0019) had also failed. The PASS remained inoperable. The failed pressure indicator, backpressure regulator, and the liquid sample valve were replaced and system integrity was verified.

On July 22, 1998, after completing the repairs on the PASS components that were damaged during the system overpressurization, Chemistry personnel again attempted to obtain a pressurized reactor coolant sample. While attempting to draw the reactor coolant sample, the sample flask used for collecting the offgas would not maintain the required vacuum. On July 22, 1998, at approximately 2100 MST, Operations personnel initiated the Pre-Planned Alternate Sampling Program in accordance with TS LCO 3.3.3.1 Action 28.

Based on the troubleshooting results, the septum and the nitrogen purge isolation valve to the sample flask were replaced and on July 25, 1998, Chemistry personnel successfully obtained a pressurized reactor coolant sample. At approximately 1727 MST on July 25, 1998, Operations personnel exited TS LCO 3.3.3.1 Action 28 and declared PASS operable.

Cause of the Inoperability

Failure of the Offgas Flush/Purge Control handswitch HS0101 initially caused the PASS to be declared inoperable. Continued PASS inoperability, following the handswitch repair, was caused by a system overpressurization event and the inability to maintain the required vacuum in the sample flask while attempting to obtain a pressurized reactor coolant sample after replacing the components that failed during the overpressurization event. These three events were all separate, independent events. The root cause of failure investigation for the overpressurization event is still ongoing.

Plans and Schedule for Restoring the PASS to Operable Status

The PASS was restored to operable status on July 25, 1998 at approximately 1727 MST.

