

# REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8707290384 DOC. DATE: 87/07/17 NOTARIZED: NO DOCKET #  
 FACIL: STN-50-529 Palo Verde Nuclear Station, Unit 2, Arizona Publi 05000529  
 AUTH. NAME AUTHOR AFFILIATION  
 HAYNES, J. G. Arizona Nuclear Power Project (formerly Arizona Public Serv  
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: Special Rept 2-SR-87-021: on 870620, noble gas activity  
 monitor RU-141 experienced microprocessor lockup. Cause  
 unknown. Troubleshooting conducted to reset central  
 processing unit to remove monitor from lockup.

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NOTES: Standardized plant. M. Davis, NRR: 1Cy.

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## Arizona Nuclear Power Project

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192-00241-JGH-TRB/ESP

July 17, 1987

U.S. Nuclear Regulatory Commission  
NRC Document Control Desk  
Washington, D.C. 20555

Subject: Palo Verde Nuclear Generating Station (PVNGS)  
Unit 2  
Docket No. STN 50-529 (License NPF-51)  
Special Report 2-SR-87-021  
File: 87-020-404

Dear Sirs:

Attached please find a Special Report 2-SR-87-021 prepared and submitted pursuant to Technical Specifications 3.3.3.8 and 6.9.2. This report discusses radiation monitoring units inoperable for greater than 72 hours.

If you have any questions, please contact T. R. Bradish, Compliance Supervisor at (602) 393-5000, Ext. 6936.

Very truly yours,

J. G. Haynes  
Vice President  
Nuclear Production

JGH/TRB/ESP/cld

Attachment

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PALO VERDE NUCLEAR GENERATING STATION

RADIATION MONITORS INOPERABLE FOR GREATER THAN 72 HOURS

License No. NPF-51

Docket No. STN 50-529

Special Report No. 2-SR-87-021

This Special Report is being submitted pursuant to Technical Specification (T.S.) 3.3.3.8 ACTION 42b and T.S. 6.9.2 to report an event in which low and high range noble gas activity monitors (RU-141 and RU-142) were inoperable for greater than 72 hours. The 72 hour limit for operability was exceeded at approximately 2040 MST on June 23, 1987. Pursuant to T.S. 3.3.3.8 ACTION 42a the Preplanned Alternate Sampling Program was initiated to monitor the plant ventilation system.

At approximately 2040 MST, on June 20, 1987 Palo Verde Unit 2 was in Mode 1 (POWER OPERATION) at 100 percent power when RU-141 stopped communicating with the mini computer and experienced a microprocessor lockup (monitor will not count). Since RU-141 supplies sample flow to RU-142, the malfunction of RU-141 caused RU-142 to be declared inoperable.

Troubleshooting was conducted in an attempt to reset the Central Processing Unit (CPU) to remove the monitor from the lockup condition. The CPU board was removed and inspected for wear. No evidence of oxidation or excessive wear on the edge connectors was found. A new CPU board was installed and the lockup cleared. The CPU board will be examined in an effort to determine the cause of the malfunction. The monitor was then connected to the test equipment to perform the quarterly functional test. During the test, the monitor did not pass the low flow equipment fail step indicating a leak in the piping connections. Troubleshooting revealed minor air leakage between the flow instrument and the monitor inlet piping. The root cause of the air leakage was found to be a galled swagelock "T" connector. As an immediate corrective action, the "T" was replaced.

Upon completion of the work order and appropriate surveillance test, RU-141 and 142 were restored to a operable status on July 1, 1987 at 1000 MST. The monitor was out of service for 8 days, 23 hours and 17 minutes.

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