

July 29, 2003

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-IV-03-036

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by the Region IV staff on this date.

**Facility**

Arizona Public Service Co.  
Palo Verde 1,2,3  
5951 Wintersburg Rd  
Tonopah, Arizona  
Dockets: 50-528, 50-529,50-530  
PWR/CE80

**Licensee Emergency Classification**

Notification of Unusual Event  
 Alert  
 Site Area Emergency  
 General Emergency  
 Not Applicable

SUBJECT: AUTOMATIC REACTOR TRIP OF UNIT 3 DUE TO GRID PERTURBATION

DESCRIPTION:

On July 28, 2003, at approximately 6:55 p.m. (MST), Unit 3 of the Palo Verde Nuclear Generating Station (PVNGS) tripped due to an offsite power perturbation caused by a maintenance error in a nearby electrical switchyard. Based upon the offsite power configuration of the facility, all three units sensed the disturbance, but only Unit 3 tripped. Unit 3 reactor coolant pumps lost power during the transient, resulting in reduced reactor coolant system flow and the automatic reactor trip due to a low departure from nucleate boiling ratio. Some systems in Units 1 and 2, such as instrument air and normal chilled water, were also affected by the electrical transient. These systems are back in service and Units 1 and 2 are currently operating at essentially full power.

Unit 3 was at 98 percent power prior to the trip, with normal temperature and pressure. All control element assemblies properly inserted during the trip, no emergency safety features (ESF) actuations occurred, and no emergency classifications were required by the facility's Emergency Plan. Due to a loss of electrical power to the secondary systems, condenser cooling was lost, requiring the closure of the main steam isolation valves (MSIVs). The licensee is maintaining plant temperature and pressure through atmospheric dump valves and auxiliary feed. During a post-trip containment walkdown, the licensee discovered that the third stage seal for Reactor Coolant Pump 2A was leaking approximately 1.7 gallons per minute, which is being collected in the containment sump. The licensee is planning a forced outage to cool down the unit and replace this seal. The resident inspectors plan to closely monitor the planned hot mid-loop operations during the RCP seal replacement.

Region IV, NRR, and the OEDO received notification of this occurrence from NRC's Operations Center on July 28, 2003. The senior resident inspector responded to the site. Region IV notified the Region's PAO and SLO. The SLO informed the Arizona Governor's Representative.

There was local press interest. This PN was discussed with the licensee to confirm technical accuracy and is current as of 4 p.m. (CDT) on July 29, 2003.

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