

August 26, 2013

LICENSEE: Arizona Public Service Company

FACILITY: Palo Verde Nuclear Generating Station, Units 1, 2, and 3

SUBJECT: SUMMARY OF AUGUST 21, 2013, CONFERENCE CALL PUBLIC MEETING WITH ARIZONA PUBLIC SERVICE COMPANY REGARDING SINGLE FAILURE OF THE LOW PRESSURE SAFETY INJECTION PUMPS TO TRIP ON A RECIRCULATION ACTUATION SIGNAL (TAC NOS. ME8284, ME8285, AND ME8286)

On August 21, 2013, a conference call public meeting was held between the U.S. Nuclear Regulatory Commission (NRC), and representatives of Arizona Public Service Company (APS, the licensee), at NRC Headquarters, Rockville, Maryland. The meeting notice and agenda, dated July 22, 2013, is located in the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML13199A008. The purpose of the meeting was to discuss the NRC staff's review of the licensee's submittal dated August 3, 2012 (ADAMS Accession No. ML12229A125), in response to the NRC staff's request for additional information (RAI) dated May 16, 2012 (ADAMS Accession No. ML121030640), regarding single failure of the low pressure safety injection (LPSI) pumps to trip on a recirculation actuation signal (RAS) at Palo Verde Nuclear Generating Station (PVNGS), Units 1, 2, and 3.

A list of meeting attendees is provided in the Enclosure to this meeting summary.

### **Meeting Summary**

During an inspection in 2011, the NRC Region IV staff identified an issue with the analysis of the minimum required refueling water tank transfer volume for the PVNGS, Units 1, 2, and 3. The NRC inspection questioned whether the analysis performed by APS adequately addressed the single failure of LPSI pumps to trip on an RAS. The licensee's response was that the single failure of LPSI pumps to trip on a RAS was identified and discussed in the license amendment request (LAR) dated November 30, 2009 (ADAMS Accession No. ML093450485), and the analysis was approved by the NRC staff for PVNGS, Units 1, 2, and 3 by Amendment No. 182, dated November 24, 2010 (ADAMS Accession No. ML102710301). Upon further review, the NRC staff concluded that the staff failed to specifically review the LPSI pump single failure justification provided in License Amendment No. 182 and had questions regarding that portion of the licensee's analysis. The NRC issued an RAI to in an effort to reconcile this issue on May 16, 2012, and the licensee responded to the RAI on August 3, 2012.

The discussion of this meeting was focused on the NRC staff's concerns regarding the licensee's submittal dated August 3, 2012. Specifically, the NRC staff is concerned that the licensee excluded the single failure requirement based on the low probability of occurrence. This is based upon the regulatory requirement, such as covered in Section 50.46 of Title 10

of the *Code of Federal Regulations*, which requires addressing a single failure during loss-of-coolant accidents without qualification regarding such areas as the probability of occurrence.

The NRC staff did recognize that although the licensee excluded the single failure, it also provided information that, with clarification, may establish that operator action would be sufficient to address the single failure, should it occur, on the basis of changes in procedures and meeting acceptable action times via multiple simulator runs.

The licensee understood the NRC staff's concerns and will meet internally to discuss possible solutions to clarify the licensing basis. The licensee will communicate the path forward to the project manager in approximately 2 weeks.

No Public Meeting Feedback Forms were received for this meeting.

Please direct any inquiries to me at (301) 415-1530, or [Jennivine.Rankin@nrc.gov](mailto:Jennivine.Rankin@nrc.gov).

Sincerely,

**/RA/**

Jennie K. Rankin, Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-528, STN 50-529,  
and STN 50-530

Enclosures:  
List of Attendees

cc w/encl: Distribution via Listserv

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Sincerely,

**/RA/**

Jennie K. Rankin, Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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and STN 50-530

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**ADAMS Accession No. ML13234A005**

OFFICE	NRR/DORL/LPL4/PM	NRR/DORL/LPL4/LA	NRR/DORL/LPL4/BC	NRR/DORL/LPL4/PM
NAME	JRankin	JBurkhardt	MMarkley	JRankin
DATE	08/26/13	08/22/13	08/26/13	08/26/13

**OFFICIAL RECORD COPY**

LIST OF ATTENDEES

AUGUST 21, 2013, MEETING WITH ARIZONA PUBLIC SERVICE COMPANY  
REGARDING SINGLE FAILURE OF THE LOW PRESSURE SAFETY INJECTION PUMPS  
TO TRIP ON A RECIRCULATION ACTUATION SIGNAL  
PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3  
DOCKET NOS. 50-528, 50-529, 50-530

<b>NAME</b>	<b>ORGANIZATION</b>
Dan O'Neal	U.S. Nuclear Regulatory Commission (NRC)
Jennie Rankin	NRC
Warren Lyon	NRC
Christopher Jackson	NRC
George Lapinsky **	NRC
Don Allen **	NRC
Dustin Reinert **	NRC
Thomas Weber *	Arizona Public Service Company (APS)
Carl Stephenson *	APS
Mark McGhee *	APS
Paul Hom *	APS
Michael Hooshmand *	APS
Matthew Glenn *	APS
Jenny Tolar *	APS
Thomas Hook *	APS
Dominic Macedonia *	APS
David Medek *	APS
James Ray **	Public

\* Participated via phone and represented APS

\*\* Participated via phone

Enclosure