



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

April 21, 2014

LICENSEE: Arizona Public Service Company

FACILITY: Palo Verde Nuclear Generating Station, Unit 3

SUBJECT: SUMMARY OF APRIL 2, 2014, PREAPPLICATION PUBLIC MEETING WITH ARIZONA PUBLIC SERVICE COMPANY REGARDING RELIEF REQUEST 52 TO EXTEND AUTHORIZED REPAIR TO PALO VERDE NUCLEAR GENERATING STATION, UNIT 3, BOTTOM-MOUNTED INSTRUMENT FOR REMAINDER OF LICENSED OPERATING LIFE (TAC NO. MF3520)

On April 2, 2014, a 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 purpose of the meeting was for APS to discuss its forthcoming Relief Request 52, which will seek authorization to operate Palo Verde Nuclear Generating Station (PVNGS), Unit 3, with the bottom-mounted instrument (BMI) nozzle penetration 3 half-nozzle repair for the duration of the facility operating license. In November 2013, the NRC granted verbal authorization to APS for Relief Request 51, the proposed alternative half-nozzle repair and flaw evaluation of BMI nozzle penetration 3, for the duration of the current fuel operating cycle (U3C18).

The meeting notice and agenda are publicly available in the Agencywide Documents Access and Management System (ADAMS) at Accession No. ML14077A371. The licensee's meeting slide presentation is available at ADAMS Accession No. ML14098A183. A list of attendees is provided in the Enclosure.

The licensee's presentation began with an overview of the BMI nozzle 3 flaw discovery and repairs. The licensee then described the boat sample location and collection, which attempted to capture the reactor coolant system (RCS) leak entrance point, weld defect, known axial cracks, and unaffected weld and nozzle material for analysis. During the destructive evaluation of the boat sample, the licensee noted a void inside the sample, which appeared to be the source of one solidification crack and multiple primary water stress-corrosion cracking (PWSCC)-indicative cracks. However, the through-wall crack from the RCS pressure boundary was not found in the boat sample. The licensee continued the presentation with an overview of the methods and analysis used to evaluate the remnant flaw propagation and acceptability for the duration of the Unit 3 facility operating license. Analyses presented included stress and fatigue analysis, welding residual stress analysis, remnant flaw growth analysis, remnant nozzle structural integrity and dynamic analysis, a corrosion assessment, and a loose parts evaluation. Additionally, the licensee discussed its schedule for submitting Relief Request 52 to the NRC staff for review.

The NRC staff asked the licensee numerous questions during the presentation regarding analysis methods, bases for calculations, model types used, and proposed schedule for

submitting the request. The NRC suggested that APS consider the following as it develops the Relief Request 52 submittal:

- Provide sufficient detail and information regarding the plant-specific models, analyses, and data used to support extended operation with the remnant flaw and half-nozzle repair.
- Include identification of excitation frequencies and natural frequencies for the remnant nozzle (slide 23 of the licensee's presentation).

During the meeting, the licensee noted that the detailed metallurgy report regarding the cracking in BMI nozzle 3 was expected to be shared with the NRC Resident Inspectors. The NRC staff noted that information contained in the metallurgy report may be of use during the review of Relief Request 52. Subsequent to the meeting, the NRC Resident Inspectors at PVNGS confirmed that they have received the referenced metallurgy report.

One Public Meeting Feedback Form was received for this meeting. Please direct any inquiries to me at 301-415-1530 or at Jennivine.Rankin@nrc.gov.



Jennie K. Rankin, Project Manager
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-530

Enclosure:
List of Attendees

cc w/encl: Distribution via Listserv

LIST OF ATTENDEES

APRIL 2, 2014, PUBLIC MEETING WITH ARIZONA PUBLIC SERVICE COMPANY
REGARDING RELIEF REQUEST 52 TO EXTEND REPAIR TO PALO VERDE NUCLEAR
GENERATING STATION, UNIT 3, BOTTOM-MOUNTED INSTRUMENT
FOR REMAINDER OF LICENSED OPERATING LIFE
DOCKET NO. 50-530

<u>NAME</u>	<u>ORGANIZATION</u>
Delbert Elkinton	Arizona Public Service Company (APS)
Tom Weber	APS
Ed Fernandez	APS
Ken House	APS
Michael Hooshmand	APS
Doug Hansen	APS
Gene Montgomery	APS
Winston Borrero	APS
Mike DiLorenzo*	APS
Robert Roehler*	APS
Mark McGhee *	APS
Paul Hom *	APS
Douglas Berg*	APS
Matthew Glenn*	APS
Rex Meeden*	APS
Carl Stephenson*	APS
David Kelsey*	APS
Doug Killian	AREVA
Ashok Nana	AREVA
Sarah Davidsaver*	AREVA
Steve Fyfitch*	AREVA
Dave Rackiewicz*	MPR Associates, Inc.
Kensaku Arai	JNES
Robert Hardies	U.S. Nuclear Regulatory Commission (NRC)
Jay Collins	NRC
Andrea George	NRC
Jennie Rankin	NRC
Carol Nove*	NRC
Mike Markley	NRC
Stacey Rosenberg	NRC
Simon Sheng	NRC
Ganesh Cheruvenki	NRC
Steven Vitto	NRC
David Alley	NRC
* participated via telephone	

Enclosure

submitting the request. The NRC suggested that APS consider the following as it develops the Relief Request 52 submittal:

- Provide sufficient detail and information regarding the plant-specific models, analyses, and data used to support extended operation with the remnant flaw and half-nozzle repair.
- Include identification of excitation frequencies and natural frequencies for the remnant nozzle (slide 23 of the licensee's presentation).

During the meeting, the licensee noted that the detailed metallurgy report regarding the cracking in BMI nozzle 3 was expected to be shared with the NRC Resident Inspectors. The NRC staff noted that information contained in the metallurgy report may be of use during the review of Relief Request 52. Subsequent to the meeting, the NRC Resident Inspectors at PVNGS confirmed that they have received the referenced metallurgy report.

One Public Meeting Feedback Form was received for this meeting. Please direct any inquiries to me at 301-415-1530 or at Jennivine.Rankin@nrc.gov.

/RA/

Jennie K. Rankin, Project Manager
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-530

Enclosure:
List of Attendees

cc w/encl: Distribution via Listserv

DISTRIBUTION:

PUBLIC	RidsNrrDorLpl4-1 Resource	NTaylor, RIV
LPL4-1 Reading	RidsNrrLAJBurkhardt Resource	RHardies, NRR/DE
RidsAcrsAcnw_MailCTR Resource	RidsNrrPMPaloVerde Resource	SRosenberg, NRR/DE/EVIB
RidsNrrDeEvib Resource	RidsOpaMail Resource	JCollins, NRR/DE/EPNB
RidsNrrDeEpnB Resource	RidsRgn4MailCenter Resource	SSheng, NRR/DE/EVIB
RidsNrrDorL Resource	JNick, EDO RIV	GCheruvenki, NRR/DE/EVIB

ADAMS Accession No.: ML14099A469

OFFICE	NRR/DORL/LPL4-1/PM	NRR/DORL/LPL4-1/PM	NRR/DORL/LPL4-1/LA	NRR/DE/EPNB/BC
NAME	AGeorge	JRankin	JBurkhardt	SRosenberg
DATE	4/15/14	4/15/14	4/15/14	4/18/14
OFFICE	NRR/DORL/LPL4-1/BC	NRR/DORL/LPL4-1/PM		
NAME	MMarkley	JRankin		
DATE	4/21/14	4/21/14		

OFFICIAL RECORD COPY