March 20, 2003

LICENSEE: Arizona Public Service Company (APS)

FACILITIES: Palo Verde Nuclear Generating Station

SUBJECT: MEETING WITH REPRESENTATIVES OF ARIZONA PUBLIC SERVICE COMPANY FOR PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3

A meeting was held on Wednesday, March 12, 2003, between the Nuclear Regulatory Commission (NRC) staff and the licensee for Palo Verde Nuclear Generating Station, Units 1, 2, and 3 (Palo Verde). The meeting was held at the request of the licensee to inform the NRC about (1) the current status of fuel performance, control element assembly (CEA) replacement, and implementation of the NRC-approved CENTS computer code for the three units and (2) the current activities of the licensee for spent fuel dry cask storage at the site for the three units. The spent fuel dry cask storage project is the construction of an Independent Spent Fuel and Storage Installation (ISFSI) on part of the Palo Verde plant site. The notice for the meeting was issued on February 25, 2003.

Enclosure 1 is the list of attendees. Enclosure 2 is the slides handed out by the licensee. There was no handout from the NRC staff. Enclosure 3 is a list of acronyms used by the licensee in its handout.

The agenda for the meeting is the following, from the third slide of Enclosure 2 (there are two slides for each page of the first part, nuclear fuel update, of the enclosure):

- Reactivity Management (Slides 4 through 7)
- CENTS and Replacement Steam Generator (RSG)/Power Uprate (Slides 8 through 10)
- Fuel Performance (Slides 11 through 17)
- Core Protection Calculator (CPC) Replacement (Slides 18 through 20)
- Control Element Assembly (CEA) Replacement (Slides 21 through 25)
- Dry Cask Storage Update (Slides 26 through 28)

Before addressing the agenda, the licensee initially presented an overview of what had happened in 2002 (Slide 2 of Enclosure 2) with respect to fuel for the three units.

The licensee presented the information in its handout, and the NRC staff asked questions. The approval of the (1) CENTS computer code being added to the core operating limits report (COLR) and (2) ZIRLO fuel cladding technical specification were licensing amendments previously approved by NRC for the three units. The amendments were issued October 15, 2001, and March 12, 2002, respectively. The CENTS computer code is being used in the replacement steam generator and power uprate (RSG/PUR) amendment request that the licensee submitted to NRC on December 21, 2001. The amendment to upgrade the core protection calculator (CPC) was submitted November 7, 2002.

The licensee discussed fuel performance for the units in terms of (1) integrated fuel clad strategy including advanced clad alloys, (2) primary chemistry, (3) crud/oxide, (4) low duty core designs, (5) re-designed core lattice of fuel assemblies, and (6) long range fuel inspection. The reference to the Alloy A lead test assembly (LTA) is a reference to advanced clad alloys where the continued testing of the LTA in Unit 3 for a fourth operating cycle was approved in the exemption approved by NRC on October 16, 2001. Crud refers to material deposits adhering to the fuel cladding.

In the update on the CEA investigation (Slides 21 through 25), the licensee stated that all full length CEAs in the units have been replaced, the lifetime software which had been used to determine the CEA lifetime has been replaced by the determination of more conservative lifetime values, new full length CEAs are being designed, and that part length CEAs in the units will be replaced with full length CEAs after the technical specifications are amended to remove the words part length. The reference to YGN in Slide 23 stands for a plant in South Korea.

The last slides on the Palo Verde dry cask storage is the current status of the ISFSI that has been built on the Palo Verde Nuclear Generating Station site. The first canister was loaded with spent fuel assemblies on March 3, 2003. The licensee stated that it would develop the lessons learned from this first loading and apply them to the future loading of canisters. The plan is to load 10 casks per year. Each canister is loaded into a cask to transfer the spent fuel to the ISFSI.

The licensee completed its presentation and the meeting was closed.

/RA/

Jack Donohew, Senior Project Manager, Section 2
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No(s). 50-528, 50-529, and 50-530

Enclosures: 1. List of Meeting Attendees
2. Licensees' Handout (ADAMS Accession No. ML030710565)
3. List of Acronyms

cc w/encls: See next page

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The licensee completed its presentation and the meeting was closed.

/RA/

Jack Donohew, Senior Project Manager, Section 2
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No(s). 50-528, 50-529, and 50-530

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cc w/encls: See next page

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Handouts: ML030710565 **PKG: ML030830280**

ADAMS Accession No.: ML030770116 **NRC-001**

OFFICE	PDIV-2/PM	PDIV-2/LA	PDIV-2/SC
NAME	JDonohew	MMcAllister	SDembek
DATE	3/20/2003	3/20/03	3/20/03

DOCUMENT NAME: C:\ORPCheckout\FileNET\ML030770116.wpd

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LIST OF ATTENDEES AT MEETING OF MARCH 12, 2003

STATUS OF FUEL PERFORMANCE AND CEA REPLACEMENT

NAME	AFFILIATION
J. Donohew	NRC/NRR/PDIV-2
R. Caruso	NRC/NRR/SRXB
U. Shoop	NRC/NRR/SRXB
S.L. Wu	NRC/NRR/SRXB
S. O'Connor	NRC/NMSS/SFPO
D. Duvigneaud	NRC/NRR/PDIV-2
T. Weber	APS
R. Bandere	APS
B. Hansen	APS

Where:

APS	=	Arizona Public Service Company
NMSS	=	Office of Nuclear Material Safety and Safeguards
NRC	=	Nuclear Regulatory Commission
NRR	=	Office of Nuclear Reactor Regulation
PDIV-2	=	Project Directorate IV-2
SFPO	=	Spent Fuel Project Office
SRXB	=	Reactor Systems Branch

ENCLOSURE 1

LICENSEE'S HANDOUT FOR MARCH 12, 2003, MEETING

ADAMS ACCESSION NO. ML030710565

ENCLOSURE 2

LIST OF ACRONYMS

AFI	Areas for improvement
APS	Arizona Public Service Company
AgInCd	Silver indium cadmium
CEA	Control element assembly
CPC	Core protection calculator
FDI	Fuel duty index
FWLB	Feedwater line break
IASCC	Irradiation assisted stress corrosion cracking
LOP	Loss of offsite power
LTA	Lead test assembly
NFM	Nuclear Fuel management
P1M316	Designation of a specific fuel assembly in the core
PLCEA	Part length CEA
PSV	Power operated safety valve
R13	Refueling Outage No. 13
RSG	Steam generator replacement
SABD	Safety analysis basis document
SF	Single failure
U1	Unit 1
U2C11	Unit 2 Operating Cycle 11
YGN	Name of a plant in Korea