REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8810260522 DOC.DATE: 88/10/19 NOTARIZED: NO DOCKET #
FACIL:STN-50-528 Palo Verde Nuclear Station, Unit 1, Arizona Publi 05000528
STN-50-529 Palo Verde Nuclear Station, Unit 2, Arizona Publi 05000529
STN-50-530 Palo Verde Nuclear Station, Unit 3, Arizona Publi 05000530
AUTH.NAME AUTHOR AFFILIATION
KARNER,D.B. Arizona Nuclear Power Project (formerly Arizona Public Serv
RECIP.NAME RECIPIENT AFFILIATION
Document Control Branch (Document Control Desk)

SUBJECT: Provides current status of plant fuel surveillance
commitments & plans for future fuel insps.

DISTRIBUTION CODE: A047D COPIES RECEIVED:LTR 1 ENCL 0 SIZE: 3
TITLE: OR Submittal: Inservice Inspection/Testing/Relief from ASME Code

NOTES:Standardized plant. 05000528
Standardized plant. 05000529
Standardized plant. 05000530

	RECIPIENT	COPIES		RECIPIENT	COPIES	
	ID CODE/NAME	LTTR	ENCL	ID CODE/NAME	LTTR	ENCL
	PD5 LA	1	~~0~~	PD5 PD	5	~~5~~
	CHAN,T	1	~~1~~	DAVIS,M	1	~~1~~
INTERNAL:	ACRS	6	~~6~~	AEOD/DSP/TPAB	1	~~1~~
	ARM/DAF/LFMB	1	~~0~~	NRR/DEST/MEB 9H	1	~~1~~
	NRR/DEST/MTB 9H	1	~~1~~	NUDOCS-ABSTRACT	1	~~1~~
	OGC/HDS1	1	~~0~~	REG FILE 01	1	~~1~~
	RES/DSIR/EIB	1	~~1~~			
EXTERNAL:	EG&G ROCKHOLD,H	1	~~1~~	LPDR	1	~~1~~
	NL 007 HEMMING	1	~~1~~	NRC PDR	1	~~1~~
	NSIC	1	~~1~~			
NOTES:		1	~~1~~			

TOTAL NUMBER OF COPIES REQUIRED: LTTR 28 ENCL ~~25~~ 0

Arizona Nuclear Power Project
P.O. BOX 52034 • PHOENIX, ARIZONA 85072-2034

161-01404-DBK/BJA
October 19, 1988

Docket Nos. STN 50-528/529/530

Document Control Desk
U.S. Nuclear Regulatory Commission
Mail Station P1-137
Washington, D.C. 20555

Reference: 1. Letter from E. E. Van Brunt, Jr., ANPP, to USNRC Document Control Desk, dated January 8, 1988 (161-00730). Subject: Fuel Surveillance Test Results.

2. Letter from E. E. Van Brunt, Jr., ANPP, to USNRC Document Control Desk, dated June 9, 1988 (161-01102). Subject: CEA Guide Tube Wear Inspection Results.

3. Letter from E. E. Van Brunt, Jr., ANPP, to R. L. Tedesco, NRC, dated August 26, 1981 (ANPP-18750). Subject: Responses to NRC Questions 490.2 through 490.4.

Dear Sirs:

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2 and 3
PVNGS Fuel Surveillance Commitments
File: 88-A-056-026

The purpose of this letter is to provide the current status of the ANPP fuel surveillance commitments and ANPP's plans for future fuel inspections. The three topics for discussion in this letter are: i) guide tube wear inspections, ii) fuel assembly shoulder gap measurements, and iii) visual examinations. Each of these three topics is discussed separately in the following paragraphs.

Guide Tube Wear Inspections

ANPP originally committed to measure guide tube wear during the first refueling outage of PVNGS Unit 1. This commitment is documented in USAR Section 4.2.4. The purpose of the measurements was to verify that the actual guide tube wear rates were conservative with respect to the limiting wear criterion. Subsequent to this original commitment, the NRC Staff informed ANPP that an inspection would also be required during the first refueling outage of PVNGS Unit 2. This implements a NRC Staff practice of requiring supplemental surveillance on the first two plants that incorporate new fuel design features (refer to Supplement No. 5 of the Palo Verde SER, Section 4.2.5).

A047 3
1/0

8810260522 881019
PDR ADOCK 05000528
Q PDC

ANPP has completed the guide tube wear inspections for Units 1 and 2. The results of the inspections have been transmitted to the NRC Staff by References 1 and 2. The results of the inspections indicate that the fuel assemblies can be used for their design life without reaching the limiting wear criterion.

In summary, ANPP has fulfilled the commitments related to performing guide tube wear inspections and reporting the results to the NRC Staff. No future guide tube wear inspections are required.

Fuel Assembly Shoulder Gap Measurements

The requirement to perform fuel assembly shoulder gap measurements at PVNGS originated in Supplement 1 of the CESSAR SER, refer to Section 4.2.3.1(g). This original requirement would have required shoulder gap inspections prior to the second cycle of operation. With the issuance of the Unit 1 Operating License (NPF-34), this requirement was expanded to require shoulder gap inspections after each refueling until the NRC concurs that the shoulder gap is adequate for the design life of the fuel (refer to Supplement No. 8 of the Palo Verde SER, Section 4.2.4).

In accordance with the NRC requirements, ANPP has conducted shoulder gap measurements on selected fuel assemblies from Units 1 and 2 following the first cycle of operation. The results of the inspections have been provided to the NRC Staff via References 1 and 2. The inspection reports conclude that adequate shoulder gap margin exists for Cycle 2 operation.

Shoulder gap measurements will be performed on the Unit 1 fuel during the second refueling outage. Based on the Unit 1 inspection results, ANPP will address the need for future shoulder gap clearance measurements and whether the shoulder gap is adequate for the design life of the fuel. ANPP does not believe that the shoulder gap measurements need to be performed in each of the PVNGS units. Due to the identical nature of the fuel in all three PVNGS units, ANPP believes that the Unit 1 shoulder gap measurements will be adequate to predict fuel behavior in Units 2 and 3. For Units 2 and 3, the visual inspections conducted at each refueling outage are sufficient to detect fuel assembly damage due to insufficient shoulder gaps.

Additionally, ANPP would like to discontinue the practice of providing a report after every shoulder gap inspection. Instead, a report will be provided to the NRC Staff when ANPP is ready to close out this issue (and discontinue the measurements) or in the event that inadequate shoulder gap clearances are discovered.

Visual Examinations

In response to NRC Question 490.3, ANPP committed to visually inspect a number of discharged fuel assemblies at each refueling outage (see Reference 3 and USAR Section 4.2.4). The inspection is conducted with underwater viewing equipment and is intended to detect gross problems of structural integrity, gross fuel rod failure, bowing, spacer grid strap damage, insufficent shoulder gap spacing, or crud deposition. ANPP will continue performing these visual examinations at each refueling outage.

SUMMARY

The previous discussion provides a summary of the future fuel inspection plans at PVNGS. The only change to previous commitments is in the area of shoulder gap measurements. ANPP believes that the modified inspection plan will provide the data necessary to ensure adequate shoulder gap clearances.

If you have any additional questions on this matter, please contact Mr. A. C. Rogers at (602) 371-4041.

Very truly yours,

DBKarner

D. B. Karner
Executive Vice President

DBK/BJA/pvk

cc: G. W. Knighton
M. J. Davis
J. B. Martin
T. J. Polich
A. C. Gehr