

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

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 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
 VAN BRUNT, E.E. Arizona Public Service Co.
 RECIP. NAME RECIPIENT AFFILIATION
 KNIGHTON, G. Licensing Branch 3

SUBJECT: Informs that source range neutron flux monitor not required to assure reactivity control maintained from remote shutdown panel, per 830728 ltr. Boron dilution event does not affect reactivity control function.

DISTRIBUTION CODE: B0018 COPIES RECEIVED: LTR 1 ENCL 0 SIZE: 2
 TITLE: Licensing Submittal: PSAR/FSAR Amdts & Related Correspondence

NOTES: Standardized plant. 05000528
 Standardized plant. 05000529
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	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL		RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
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	NRR LB3 LA	1 0		LICITRA, E. 01	1 0
INTERNAL:	ELD/HDS3	1 0		IE FILE	1 0
	IE/DEPER/EPB 36	3 3		IE/DEPER/IRB 35	1 0
	IE/DEQA/QAB 21	1 0		NRR/DE/AEAB	1 0
	NRR/DE/CEB 11	1 0		NRR/DE/EHEB	1 0
	NRR/DE/EOB 13	2 2		NRR/DE/GB 28	2 2
	NRR/DE/MEB 18	1 0		NRR/DE/MTEB 17	1 0
	NRR/DE/SAB 24	1 0		NRR/DE/SGEB 25	1 0
	NRR/DHFS/HFEB40	1 0		NRR/DHFS/LQB 32	1 0
	NRR/DHFS/PSRB	1 0		NRR/DL/SSPB	1 0
	NRR/DSI/AEB 26	1 0		NRR/DSI/ASB	1 0
	NRR/DSI/CPB 10	1 0		NRR/DSI/CSB 09	1 0
	NRR/DSI/ICSB 16	1 0		NRR/DSI/METB 12	1 0
	NRR/DSI/PSB 19	1 0		NRR/DSI/RAB 22	1 0
	NRR/DSI/RSB 23	1 0		REG FILE 04	1 0
	RGNS	3 3		RM/DDAMI/MIB	1 0
EXTERNAL:	ACRS 41	6 6		BNL (AMDTs ONLY)	1 1
	DMB/DSS (AMDTs)	1 0		FEMA-REP DIV 39	1 1
	LPDR 03	1 0		NRC PDR 02	1 1
	NSIC 05	1 0		NTIS	1 1

TOTAL NUMBER OF COPIES REQUIRED: LTTR 53 ENCL 46

1. The building is a large, multi-story structure with a complex facade. It features numerous windows, some of which are arched or have decorative frames. The architecture suggests a classical or neoclassical style.

2. The building is situated on a hillside, with a road or path leading up to it. The surrounding area appears to be landscaped, with some trees and greenery visible.

3. The photograph is taken from a low angle, looking up at the building, which emphasizes its height and grandeur. The lighting is bright, suggesting a sunny day.

4. The building's facade is light-colored, possibly white or light gray, and it has a symmetrical design with a central entrance area.

5. The overall impression is one of a formal, institutional building, possibly a government office or a university building.

Arizona Public Service Company

P.O. BOX 21666 • PHOENIX, ARIZONA 85036

November 23, 1983
ANPP-28284 - WFO/TFQ

Director of Nuclear Reactor Regulation
Attention: Mr. George Knighton, Chief
Licensing Branch No. 3
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2 and 3
Docket Nos. STN-50-528/529/530
File: 83-056-026; G.1.01.10

Reference: (A) Letter from E. E. Van Brunt, Jr., APS, to G. W. Knighton,
NRC, ANPP-23782, dated May 17, 1983.
(B) Letter from G. W. Knighton, NRC, to E. E. Van Brunt, Jr.,
APS, dated July 28, 1983.

Dear Mr. Knighton:

By letter, Reference (A), we responded to your request to add a source range neutron flux monitor to the PVNGS Remote Shutdown Panel (RSP). By letter, Reference (B), you stated that our response did not meet the staff position with regard to monitoring source range neutron flux. We would like to take this opportunity to restate our position on this issue.

The NRC staff concern is the loss of the reactivity control function from the Remote Shutdown Panel (RSP) due to potential boron dilution events caused by fire induced spurious operation of components. At PVNGS, the RSP would be used only when the control room becomes uninhabitable. Prior to evacuation of the control room, the operator will trip the reactor and verify that all control rods are fully inserted.

PVNGS has such an extremely high control rod worth that it is impossible to achieve a critical state at any temperature or at anytime during a fuel cycle provided that all rods are inserted. This can be further realized by noting that the HOT (564°F) Zero Power, Beginning of Cycle (BOC), clean critical all-rods-in boron level is estimated to be -364 ppm. Allowing an additional 250 ppm for cooldown to approximately 60°F, there is still a shutdown margin equivalent to -114 ppm boron. Thus, a subcritical condition is maintained, assuming no boron in the RCS, and all rods in. This indicates that the occurrence of a boron dilution event does not affect the reactivity control function.

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PDR ADQCK 05000528
A. PDR

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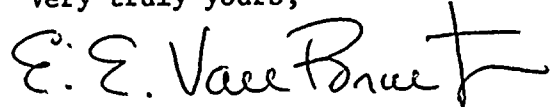
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Mr. G. W. Knighton
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Therefore, a source range neutron flux monitor is not required to assure reactivity control is maintained from the RSP.

Please contact me if you have any questions on this matter.

Very truly yours,



E. E. Van Brunt, Jr.
APS Vice President
Nuclear Projects Management
ANPP Project Director

EEVB/TFQ/sp

cc: E. A. Licitra
G. Wermiel
A. C. Gehr

