

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8410100387 DOC.DATE: 84/10/05 NOTARIZED: YES 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
 VAN BRUNT,E.E. Arizona Public Service Co.
 RECIP.NAME RECIPIENT AFFILIATION
 KNIGHTON,G. Licensing Branch 3

SUBJECT: Forwards marked-up FSAR Section 14.B.4, reflecting initial test program per E Licitra & D Becker 840911 telcon.FSAR, change discussed during E Licitra & D Becker 841004 telcon w/M Jones & found acceptable.

DISTRIBUTION CODE: B001D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 6
 TITLE: Licensing Submittal: PSAR/FSAR Amdts & Related Correspondence

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

RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
NRR/DL/ADL	1 0	NRR LB3 BC	1 0
NRR LB3, LA	1 0	LICITRA,E 01	1 1
INTERNAL: ADM/LFMB	1 0	ELD/HDS3	1 0
IE FILE	1 1	IE/DEPER/EPB 36	3 3
IE/DEPER/IRB 35	1 1	IE/DQASIP/QAB21	1 1
NRR ROE,M,L	1 1	NRR/DE/AEAB	1 0
NRR/DE/CEB 11	1 1	NRR/DE/EHEB	1 1
NRR/DE/eqB 13	2 2	NRR/DE/GB 28	2 2
NRR/DE/MEB 18	1 1	NRR/DE/MTEB 17	1 1
NRR/DE/SAB 24	1 1	NRR/DE/SGEB 25	1 1
NRR/DHFS/HFEB40	1 1	NRR/DHFS/LQB 32	1 1
NRR/DHFS/PSRB	1 1	NRR/DL/SSPB	1 0
NRR/DSI/AEB 26	1 1	NRR/DSI/ASB	1 1
NRR/DSI/CPB 10	1 1	NRR/DSI/CSB 09	1 1
NRR/DSI/ICSB 16	1 1	NRR/DSI/METB 12	1 1
NRR/DSI/PSB 19	1 1	NRR/DSI/RAB 22	1 1
NRR/DSI/RSB 23	1 1	REG FILE 04	1 1
RGNS	3 3	RM/DDAMI/MIB	1 0

EXTERNAL: ACRS 41	6 6	BNL (AMDTs ONLY)	1 1
DMB/DSS (AMDTs)	1 1	FEMA-REP DIV 39	1 1
LPDR 03	1 1	NRC PDR 02	1 1
NSIC 05	1 1	NTIS	1 1

TOTAL NUMBER OF COPIES REQUIRED: LTTR 55 ENCL 47

[illegible]

• $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

The image shows a document page with a grid-like structure, possibly a ledger or form. The page is heavily degraded, showing significant noise and artifacts, including vertical lines and horizontal bands of black and white. The content is illegible due to the poor quality of the scan.

Arizona Public Service Company

October 5, 1984
ANPP-30753 EEVBJr/MAJ

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
APS Response to NRC Questions Pertaining
to Initial Test Program.
Docket Nos. STN-50-528/529/530
File: 84-056-026; G.I.01.10

- Reference: (1) Letter to G. W. Knighton, NRC, from
E. E. Van Brunt, Jr. APS, dated July 3, 1984
(ANPP-29875). Subject: APS Response to NRC
Questions Pertaining to the Initial Test Program.
- (2) Telecon between E. Licitra and D. Becker, NRC,
and M. Jones and B. Grinstead, APS, dated
September 11, 1984. Subject: FSAR 14.B.4
- (3) Telecon between E. Licitra and D. Becker, NRC,
and M. Jones, APS, dated October 4, 1984.
Subject: Response to Reference (2).

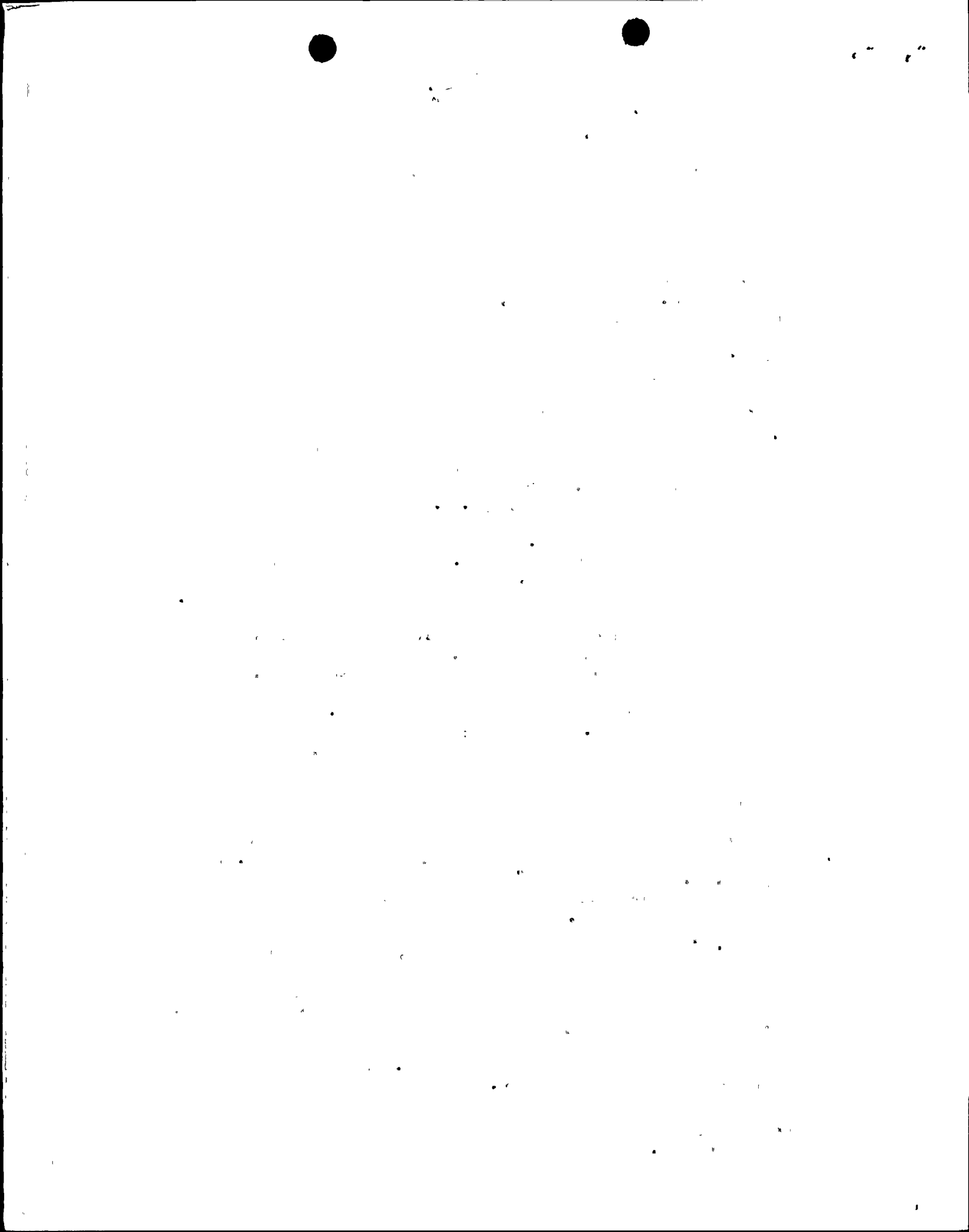
Dear Mr. Knighton:

Reference (1) transmitted the APS response to staff questions on the 125VDC Power System Test as described in FSAR 14.B.4. In response, APS committed to "Verify that DC loads required for safe shutdown, not verified by vendor tests and system analysis, will function properly, as installed, at a battery terminal voltage equal to the minimum acceptable battery terminal voltage." Per the Reference (2) telecon, the staff stated that if system analysis were used, the analytical techniques and assumptions of the analysis must be verified by an actual measurement. The staff requested that APS change the FSAR test abstract to reflect this.

Attached is a marked up copy of FSAR 14.B.4 which reflects the staff request per Reference (2). This FSAR change was discussed with the staff in the Reference (3) telecon and was found acceptable. An FSAR Change Notice has been initiated and is being processed.

8410100387 841005
PDR ADDCK 05000528
A PDR

Boo!
11



ANPP-30753

Mr. G. Knighton .

page 2.

If you have any further questions on this subject, please call me.

Very truly yours,

EE Van Brunt *OK*

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

EEVBJr/MAJ/rw
Attachment

cc:	E. A. Licitra	w/a
	R. Zimmerman	"
	D. Becker	"
	A. C. Gehr	"

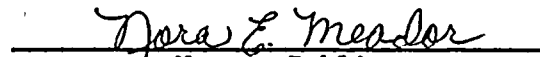
ANPP-30753

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

I, Donald Karner, represent that I am Assistant Vice President, Nuclear Production of Arizona Public Service Company, that the foregoing document has been signed by me on behalf of Arizona Public Service Company with full authority to do so, that I have read such document and know its contents, and that to the best of my knowledge and belief, the statements made therein are true.


Donald Karner

Sworn to before me this 5th day of October, 1984.


Notary Public

My Commission Expires:

My Commission Expires April 8, 1987



14B.4 125V DC POWER SYSTEM1.0 OBJECTIVE

To demonstrate, by verification of the system design and by component performance testing, that the 125V DC Power System provides a reliable source of power for startup, operation, and shutdown under normal and emergency conditions, and to verify that the four separate power sources and their respective loads are independent of each other.

2.0 PREREQUISITES

- 2.1 Construction activities completed on components to be tested.
- 2.2 Meters and relays calibrated.
- 2.3 Batteries fully charged with normal height of electrolyte.
- 2.4 Load resistor bank available for battery capacity test.
- 2.5 Construction activities completed on safety related equipment supplied by the battery system for the integrated system test.
- 2.6 Battery room ventilation available.
- 2.7 Appropriate ac and dc power sources available.

3.0 TEST METHOD

- 3.1 Inspection to verify that construction and component installation is in accordance with the system design.

APPENDIX 14B

- 3.2 Battery capacity and charger performance will be verified in both float and equalize mode.
- 3.3 Bus transfer devices will be tested.
- 3.4 Alarms and tripping devices will be tested.
- 3.5 The ground detector will be checked. 2
- 3.6 The load capacity of the battery will be measured by discharging the battery through a variable resistive load programmed to match the emergency discharge requirements of the battery. (Battery charger disconnected.)
- 3.7 Individual cell voltage will be monitored during the design discharge test. 8
- 3.8 Verify that DC loads required for safe shutdown, not verified by vendor tests and system analysis, will function properly, as installed, at a battery terminal voltage equal to the minimum acceptable battery terminal voltage. **INSERT** 13
8

4.0 ACCEPTANCE CRITERIA 2

- 4.1 The 125V DC Power System will perform the functions described in applicable portions of Section 8.3.2 when using the above test methods. 8
2
- 4.2 DC supplied loads required for safe shutdown, not verified by vendor tests and system analysis will function, as installed and required, at a battery terminal voltage equal to the acceptance criteria established for minimum battery terminal voltage. 13
2

INSERT

Insert for FSAR page 14B-7

If system analysis is used, the worst case for each type load will be proven operable by an actual field test.

