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 AUTH. NAME: AUTHOR AFFILIATION
 VAN BRUNT, E. E. Arizona Public Service Co.
 RECIP. NAME: RECIPIENT AFFILIATION
 TEDESCO, R. L. Assistant Director for Licensing

SUBJECT: Forwards response to NRC Questions 450.18 & 450.19 re
 control room habitability. Responses will be incorporated
 into FSAR in upcoming amend.

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INTERNAL:	ACCID EVAL BR26	1	1	AUX SYS BR 27	1	1
	CHEM ENG BR 11	1	1	CONT SYS BR 09	1	1
	CORE PERF BR 10	1	1	EFF TR SYS BR12	1	1
	EMRG. PRP. DEV 35	1	1	EMRG. PRP LIC 36	3	3
	EQUIP QUAL BR13	3	3	FEMA-REP DIV 39	1	1
	GEOSCIENCES 28	2	2	HUM FACT ENG 40	1	1
	HYD/GEO BR 30	2	2	I&C SYS BR 16	1	1
	I&EI 06	3	3	LIC GUID BR 33	1	1
	LIC QUAL BR 32	1	1	MATL ENG BR 17	1	1
	MECH ENG BR 18	1	1	MPA	1	0
	OELD	1	0	OP. LIC BR 34	1	1
	POWER SYS BR 19	1	1	PROC/TST REV 20	1	1
	QA BR 21	1	1	RAD ASSESS BR22	1	1
	REAC SYS BR 23	1	1	REG FILE 01	1	1
	SIT ANAL BR 24	1	1	STRUCT ENG BR25	1	1
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NRC PDR 02		1	1	NSIC 05	1	1
NTIS		1	1			

APP. 4

SEP 8 1981

TOTAL NUMBER OF COPIES REQUIRED: LTR

63

62 ENCL

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57

[Handwritten signature]

1. The first part of the document is a list of names and addresses. The names are listed in the first column, and the addresses are listed in the second column. The names are: John Doe, Jane Smith, and Bob Johnson. The addresses are: 123 Main St, 456 Elm St, and 789 Oak St.

2. The second part of the document is a list of names and addresses. The names are listed in the first column, and the addresses are listed in the second column. The names are: Alice Brown, Charlie Green, and David White. The addresses are: 101 Main St, 202 Elm St, and 303 Oak St.

3. The third part of the document is a list of names and addresses. The names are listed in the first column, and the addresses are listed in the second column. The names are: Emily Black, Frank Gray, and George Blue. The addresses are: 404 Main St, 505 Elm St, and 606 Oak St.

4. The fourth part of the document is a list of names and addresses. The names are listed in the first column, and the addresses are listed in the second column. The names are: Helen Red, Ivan Purple, and Julia Yellow. The addresses are: 707 Main St, 808 Elm St, and 909 Oak St.

5. The fifth part of the document is a list of names and addresses. The names are listed in the first column, and the addresses are listed in the second column. The names are: Kevin Orange, Linda Silver, and Mark Gold. The addresses are: 1010 Main St, 1011 Elm St, and 1012 Oak St.

6. The sixth part of the document is a list of names and addresses. The names are listed in the first column, and the addresses are listed in the second column. The names are: Nancy Bronze, Oscar Copper, and Patricia Iron. The addresses are: 1013 Main St, 1014 Elm St, and 1015 Oak St.

7. The seventh part of the document is a list of names and addresses. The names are listed in the first column, and the addresses are listed in the second column. The names are: Quincy Nickel, Rebecca Zinc, and Samuel Tin. The addresses are: 1016 Main St, 1017 Elm St, and 1018 Oak St.

8. The eighth part of the document is a list of names and addresses. The names are listed in the first column, and the addresses are listed in the second column. The names are: Thomas Lead, Ursula Platinum, and Victor Palladium. The addresses are: 1019 Main St, 1020 Elm St, and 1021 Oak St.

9. The ninth part of the document is a list of names and addresses. The names are listed in the first column, and the addresses are listed in the second column. The names are: Wendy Silver, Xavier Gold, and Yvonne Bronze. The addresses are: 1022 Main St, 1023 Elm St, and 1024 Oak St.

10. The tenth part of the document is a list of names and addresses. The names are listed in the first column, and the addresses are listed in the second column. The names are: Zachary Copper, Adam Iron, and Eve Nickel. The addresses are: 1025 Main St, 1026 Elm St, and 1027 Oak St.

ARIZONA



PUBLIC SERVICE COMPANY

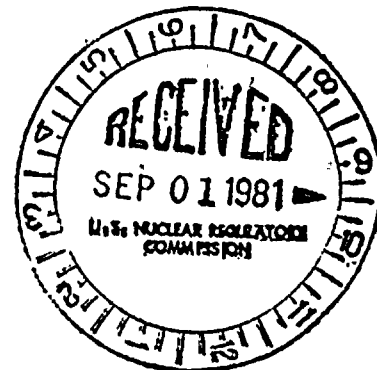
STA. _____

P.O. BOX 21666 - PHOENIX, ARIZONA 85036

August 26, 1981

ANPP-18759 - JMA/TFQ

Mr. R. L. Tedesco
Assistant Director for Licensing
Division of Licensing
Office of Nuclear Reactor Regulation
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: 81-056-026; G.1.10

Reference: Letter from R. L. Tedesco, NRC, to E. E. Van Brunt, Jr.
dated August 13, 1981, subject: Request for Additional
Information - PVNGS - (Accident Evaluation Branch)

Dear Mr. Tedesco:

Attached are responses to NRC Questions 450.18 and 450.19 for your use.
These responses will be incorporated into the FSAR in an upcoming amend-
ment.

Please contact me if you have any further questions on these matters.

Very truly yours,

E. E. Van Brunt

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

EEVBJr/TFQ/av
Attachment

cc: J. Kerrigan (w/a)
P. Hourihan (w/a)
A. C. Gehr (w/a)

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5/11*

(8109020150 810826
PDR ADCK 05000528
A PDR)

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

I, Edwin E. Van Brunt, Jr., represent that I am Vice President Nuclear Projects of Arizona Public Service Company, that the foregoing document has been signed by me on behalf of Arizona Public Service Company with full authority so to do, 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.

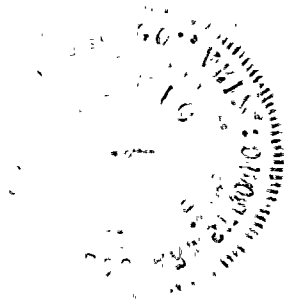
Edwin E. Van Brunt, Jr.
Edwin E. Van Brunt, Jr.

Sworn to before me this 26th day of AUGUST, 1981.

Connie Lou Armstrong
Notary Public

My Commission expires:

June 24, 1983



Question 6A.61

(NRC No. 450.18)

(6.4)

Provide the following information required for the control room habitability evaluation:

- (1) control room shielding including radiation streaming from penetrations, doors, ducts, stairways, etc.:
- (2) Self-contained breathing apparatus availability (number)
- (3) bottled air supply (hours supply)
- (4) control room personnel capacity (normal and emergency)
- (5) potassium iodide drug supply
- (6) control room emergency filtration system including the capability to maintain the control room pressurization at 1/8-inch water gauge, verification of isolation by test signals and damper closure times, and filter testing requirements.

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RESPONSE:

- 1) The required information is provided in FSAR section 6.4.2.5 and LLIR section II.B.2.
- 2) The required information is provided in paragraph M of section 6.4.2.2.2.
- 3) The required information is provided in paragraph M of section 6.4.2.2.2.
- 4) There is no specific design limit on the number of personnel permitted in the control room under normal operation. Refer to the PVNGS Security Plan for additional details of control room access restrictions. As noted in sections 6.4.1, 6.4.2.2.2 and 6.4.4.3, 6 persons can be accommodated in the control room in emergencies.

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- 5) Sufficient potassium iodide will be stored in the control room to supply 6 persons for 7 days, as noted in paragraph D of section 6.4.4.3.
 - 6) The required information is provided in sections 6.4.2.2, 6.4.2.3, 6.4.2.4, 6.4.3.2, 6.4.4.3, and 6.4.5.

Question 15A.54 (NRC No. 450.19)

(15.7.4)

In order to complete our evaluation of the fuel handling accident analysis we request that you provide the following information:

- (1) Location of RMS detector used to isolate containment refueling purge system and air flow transit time between detector and valve based on normal flow rates.
- (2) Specify if the RMS detector used to isolate containment refueling purge system is ESF grade and redundant and if so, include location of redundant detector.
- (3) Location of RMS detector used to isolate fuel handling building in the event of a Fuel Handling Accident and air flow transit line between detector and damper based on normal flow rates.
- (4) Specify if RMS detector used to isolate fuel handling building, in the event of a fuel handling accident, is ESF grade and redundant and if so, include location of redundant detector.

RESPONSE: As noted in sections 15.7.3.1 and 15.7.3.2, offsite doses due to fuel handling accidents will be a small fraction of 10CFR100 limits even without isolation or filtration of containment or fuel building exhausts. The design, however, does include radiation monitors to sense the occurrence of an accident and initiate protective action.

- 1) The PAPA area radiation monitors isolate the containment refueling purge upon high radiation. They are located just outside the containment between the refueling purge exhaust ducting and the power access purge ducting as shown on figure 12.3-4. Air flow transit time is less than 1/4 second.

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- 2) There are two redundant, safety grade monitors, 13-J-SQA-RU-37 and 13-J-SQB-RU-38. Refer to section 11.5.
 - 3) Area radiation monitor 13-J-SQA-RU-31 is located on the east wall of the fuel building adjacent to the spent fuel pool. The detector will register the evolution of airborne radioactivity from the pool within 1/4 second.
 - 4) 13-J-SQA-RU-31 is safety grade. The redundant safety grade monitor has 2 channels, low range, and high range (13-J-SQB-RU-145 and 13-J-SQB-RU-146). It is located just below the roof level and samples the exhaust downstream of the dampers isokinetically. The sample transit time is less than 10 seconds between duct and monitor.

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