

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8009300402 DOC.DATE: 80/09/29 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. *APP/4*  
 RECIP.NAME RECIPIENT AFFILIATION  
 Office of Nuclear Reactor Regulation, Director

SUBJECT: Forwards Amend 2 to FSAR.

DISTRIBUTION CODE: L002S COPIES RECEIVED:LTR 3 ENCL 15 SIZE: 1+300  
 TITLE: Lic Apolic PSAR/FSAR (Acceptance Review)

NOTES:Standardized Plant. 05000528  
~~Standardized Plant.~~ 05000529  
~~Standardized Plant.~~ 05000530

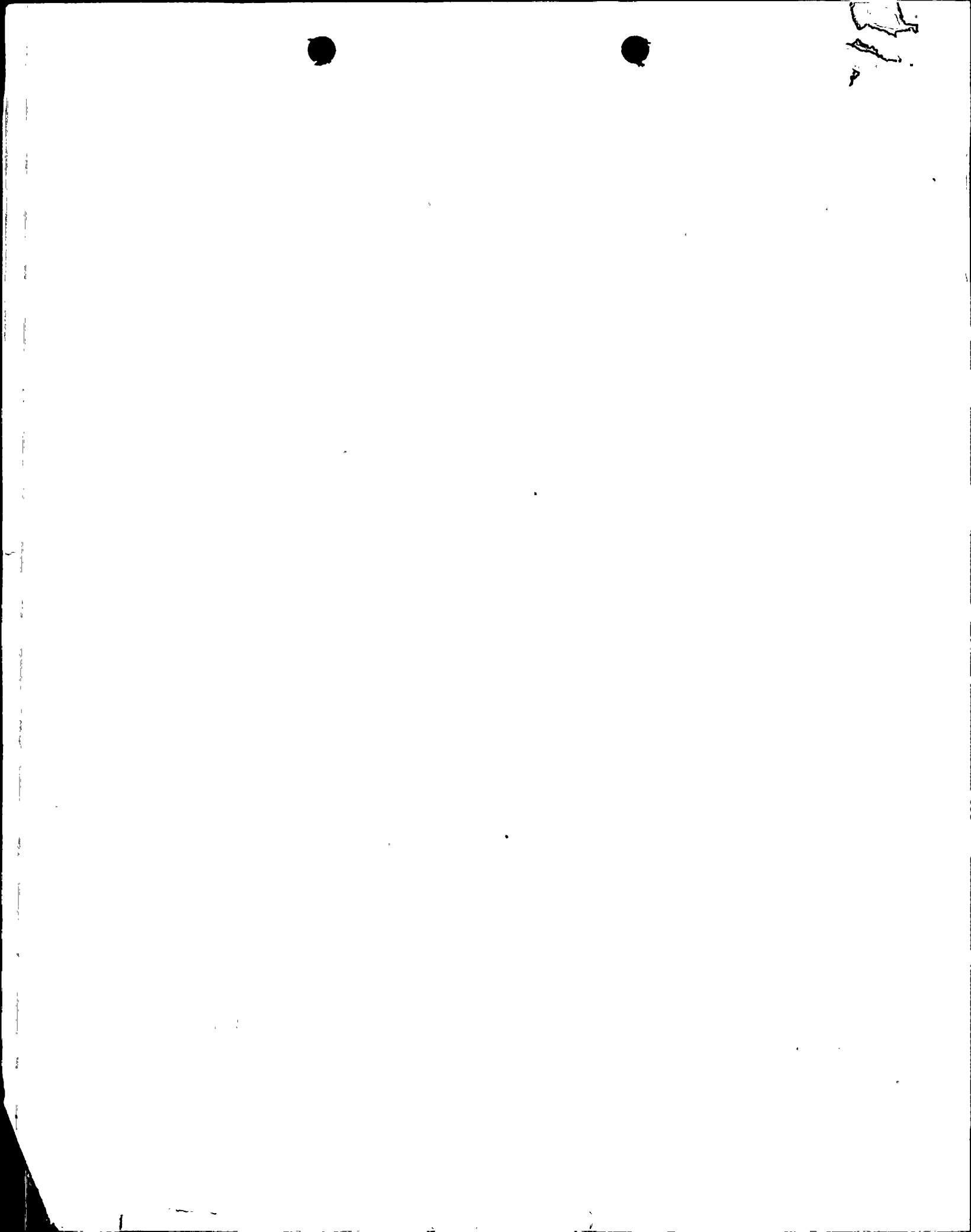
ACTION:	RECIPIENT	COPIES		RECIPIENT	COPIES	
	ID CODE/NAME	LTR	ENCL	ID CODE/NAME	LTR	ENCL
	A/D LICENSNG	1	0	SCHWENCER,A.	1	0
	LEE,J.	1	0	KERRIGAN,J. 04	1	1
INTERNAL:	!LIC QUAL BR	1	1	<del>!W 1 3 13 ONLY</del>	<del>0</del>	<del>0</del>
	%SIT ANAL BR	1	1	<del>%W 2 ONLY</del>	<del>0</del>	<del>0</del>
	&AUX SYS BR	1	1	<del>&amp;W 9,10,11 ONLY</del>	<del>0</del>	<del>0</del>
	'CONT SYS BR	1	1	<del>'W 6 3 3 ONLY</del>	<del>0</del>	<del>0</del>
	(CORE PERF BR	1	1	<del>(W 4,13 ONLY</del>	<del>0</del>	<del>0</del>
	*QA BR	1	1	<del>*W 17 ONLY</del>	<del>0</del>	<del>0</del>
	,,GEOSCIENCES	1	1	<del>,,W CH 2</del>	<del>0</del>	<del>0</del>
	,PROC/TST REV	1	1	<del>,W CH 13,14,17</del>	<del>0</del>	<del>0</del>
	-MATL ENG BR	1	1	<del>-W CH 3,4,5,6,9</del>	<del>0</del>	<del>0</del>
	...HYD/GEO BR	1	1	<del>...W CH 2,7</del>	<del>0</del>	<del>0</del>
	..POWER SYS BR	1	1	<del>..W CH 7,8,10</del>	<del>0</del>	<del>0</del>
	.EFF TR SYS	1	1	<del>.W CH 11</del>	<del>0</del>	<del>0</del>
	A/D COMP&STRUCT	1	0	A/D CORE & CS	1	0
	A/D ENV TECH	1	0	A/D MATL & QUAL	1	0
	A/D PLANT SYS	1	0	A/D RAD PROT	1	0
	ACCID EVAL 11	1	1	CHEM ENG BR 07	1	1
	EMERG PREP BR 1	1	0	I&C SYS SR 13	1	1
	MECH ENG BR 15	1	1	NRC PDR 02	1	1
	OPER LIC BR 10	1	0	RAD ASMNT BR	1	0
	REAC SYS BR 10	1	1	<u>REG FILE</u> 01	1	1
	STRUC ENG BR 12	1	0			
EXTERNAL:	LPDR 03	1	1			

*Complete*

OCT 1 1980

TOTAL NUMBER OF COPIES REQUIRED: LTR 34 ENCL 20

Handwritten marks or scribbles in the top right corner.



ARIZONA



PUBLIC SERVICE COMPANY

P. O. BOX 21666 • PHOENIX, ARIZONA 85036

September 29, 1980

ANPP-16383 - JMA/JPS

Director 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

Dear Sir:

Arizona Public Service Company (APS), as Project Manager and Operating Agent for Palo Verde Nuclear Generating Station (PVNGS) Units 1,2&3, is submitting herewith Fifteen (15) copies of Amendment 2 to the PVNGS Units 1,2&3 Final Safety Analysis Report.

This amendment provides an update to the Final Safety Analysis Report and includes the responses to NRC Acceptance Review questions.

Respectfully submitted,

ARIZONA PUBLIC SERVICE COMPANY

By: *Edwin E. Van Brunt*  
Edwin E. Van Brunt, Jr.  
APS Vice President,  
Nuclear Projects  
ANPP Project Director

EEVBjr/JPS/av  
Attachment  
cc: J. Kerrigan

State of Arizona )  
County of Maricopa ) ss.

On its own behalf and as agent  
for all other joint applicants.

Subscribed and sworn to before me this 18 day of September, 1980.

My Commission expires: \_\_\_\_\_

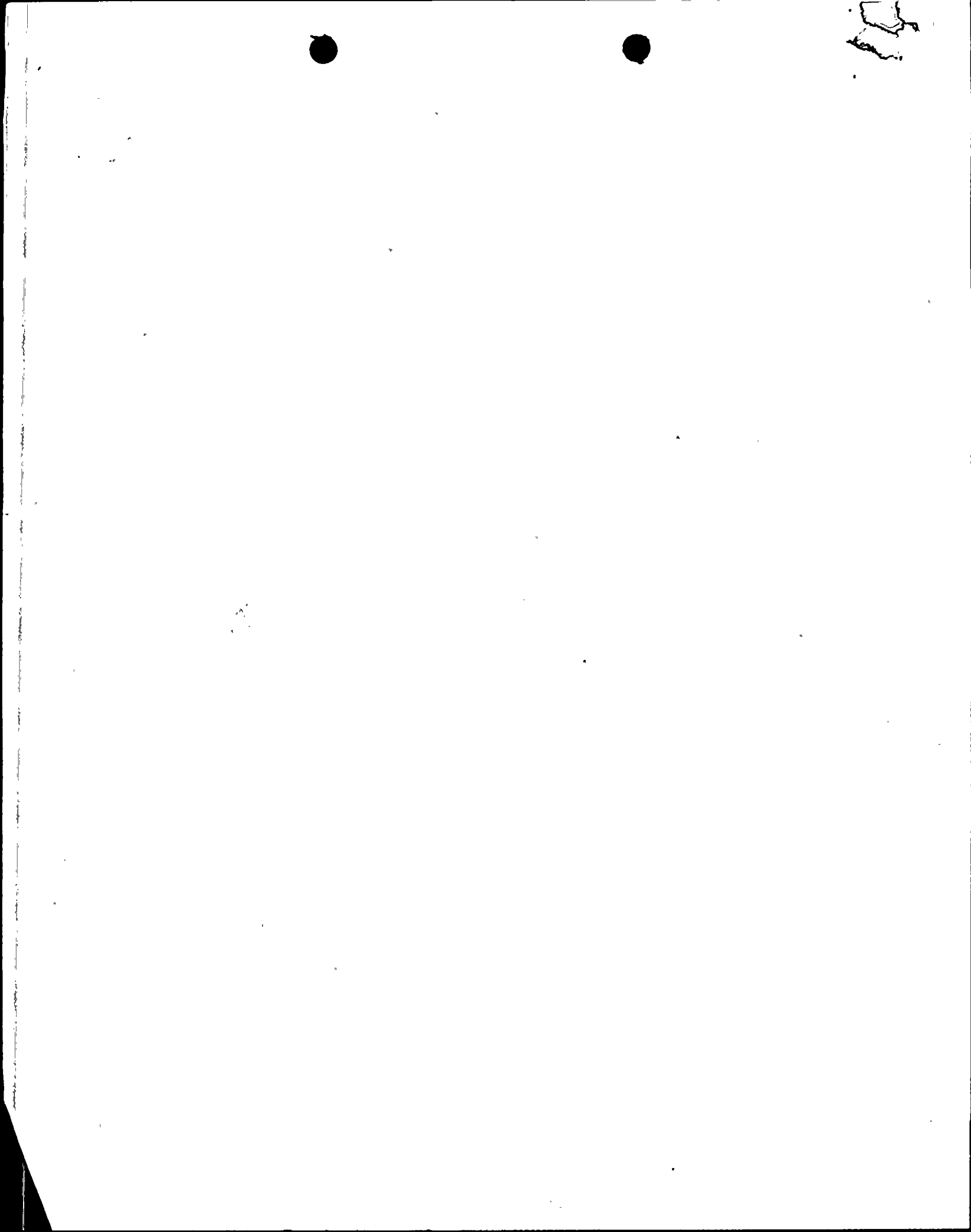
My Commission Expires Jan. 23, 1983

*John M. Allen*

*L002  
5/3/15*

8009360402

K



REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8009300402 DOC.DATE: 80/09/29 NOTARIZED: YES DOCKET #  
 FACIL:STN-50-528 Palo Verde Nuclear Statjon, 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.  
 RECIPI.NAME RECIPIENT AFFILIATION  
 Office of Nuclear Reactor Regulation, Director

SUBJECT: Forwards Amend 2 to FSAR.

DISTRIBUTION CODE: L002S COPIES RECEIVED:LTR 3 ENCL 15 SIZE: LT 300  
 TITLE: Lic Apolic PSAR/FSAR (Acceptance Review)

NOTES:Standardized Plant. 05000528  
~~Standardized Plant.~~ 05000529  
~~Standardized Plant.~~ 05000530

ACTION:	RECIPIENT	COPIES		RECIPIENT	COPIES	
	ID CODE/NAME	LTR	ENCL	ID CODE/NAME	LTR	ENCL
	A/D LICENSNG	1	0	SCHWENCER,A.	1	0
	LEE,J.	1	0	KERRIGAN,J. 04	1	1
INTERNAL:	!LIC QUAL BR	1	1	<del>!W 1-8-13 ONLY</del>	<del>0</del>	<del>0</del>
	%SIT ANAL BR	1	1	<del>%W 2 ONLY</del>	<del>0</del>	<del>0</del>
	&AUX SYS BR	1	1	<del>&amp;W 9,10,11 ONLY</del>	<del>0</del>	<del>0</del>
	*CONT SYS BR	1	1	<del>*W 6-8-3 ONLY</del>	<del>0</del>	<del>0</del>
	(CORE PERF BR	1	(9)	<del>(W 4,15 ONLY</del>	<del>0</del>	<del>0</del>
	*QA BR	1	1	<del>*W 17 ONLY</del>	<del>0</del>	<del>0</del>
	,,GEOSCIENCES	1	1	<del>,,W CH 2</del>	<del>0</del>	<del>0</del>
	,PROC/TST REV	1	1	<del>,W CH 13,14,17</del>	<del>0</del>	<del>0</del>
	-MATL ENG BR	1	1	<del>-W CH 3,4,5,6,9</del>	<del>0</del>	<del>0</del>
	...HYD/GEO BR	1	1	<del>...W CH 2,3</del>	<del>0</del>	<del>0</del>
	..POWER SYS BR	1	1	<del>..W CH 7,8,10</del>	<del>0</del>	<del>0</del>
	.EFF TR SYS	1	1	<del>.W CH 11</del>	<del>0</del>	<del>0</del>
	A/D COMP&STRUCT	1	0	A/D CORE & CS	1	0
	A/D ENV TECH	1	0	A/D MATL & QUAL	1	0
	A/D PLANT SYS	1	0	A/D RAD PROT	1	0
	ACCID EVAL 11	1	1	CHEM ENG BR 07	1	1
	EMERG PREP BR 1	1	0	I&C SYS BR 13	1	1
	MECH ENG BR 15	1	1	NRC. PDR 02	1	1
	OPER LIC BR 10	1	0	RAD ASMNT BR	1	0
	REAC SYS BR 10	1	1	<u>REG FILE</u> 01	1	1
	STRUC ENG BR 12	1	0			
EXTERNAL:	LPDR 03	1	1			

TOTAL NUMBER OF COPIES REQUIRED: LTR 34 ENCL 20



1

2

3

4

5

6

7

8

9

10  
11  
12

13

14  
15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

ARIZONA



PUBLIC SERVICE COMPANY

P. O. BOX 21666 · PHOENIX, ARIZONA 85036

September 29, 1980  
ANPP-16383 - JMA/JPS

Director 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

Dear Sir:

Arizona Public Service Company (APS), as Project Manager and Operating Agent for Palo Verde Nuclear Generating Station (PVNGS) Units 1,2&3, is submitting herewith Fifteen (15) copies of Amendment 2 to the PVNGS Units 1,2&3 Final Safety Analysis Report.

This amendment provides an update to the Final Safety Analysis Report and includes the responses to NRC Acceptance Review questions.

Respectfully submitted,

ARIZONA PUBLIC SERVICE COMPANY

By: *Edwin E. Van Brunt, Jr.*  
Edwin E. Van Brunt, Jr.  
APS Vice President,  
Nuclear Projects  
ANPP Project Director

EEVB Jr/JPS/av  
Attachment  
cc: J. Kerrigan

On its own behalf and as agent  
for all other joint applicants.

State of Arizona )  
County of Maricopa ) ss.

Subscribed and sworn to before me this 18 day of September, 1980.

My Commission Expires Jan. 23, 1983

My Commission expires: \_\_\_\_\_

*John M. Allen*

*L002  
3/15*

8009300402

K





ARIZONA



PUBLIC SERVICE COMPANY

P. O. BOX 21666 • PHOENIX, ARIZONA 85036

September 29, 1980  
ANPP-16383 - JMA/JPS

Director of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: Palo Verde Nuclear Generating Station  
Units 1, 2 and 3  
Docket Nos. STN-50-528/529/530

Dear Sir:

Arizona Public Service Company (APS), as Project Manager and Operating Agent for Palo Verde Nuclear Generating Station (PVNGS) Units 1,2&3, is submitting herewith Fifteen (15) copies of Amendment 2 to the PVNGS Units 1,2&3 Final Safety Analysis Report.

This amendment provides an update to the Final Safety Analysis Report and includes the responses to NRC Acceptance Review questions.

Respectfully submitted,

ARIZONA PUBLIC SERVICE COMPANY

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

EEVBjr/JPS/av  
cc: J. Kerrigan

On its own behalf and as agent for  
all other joint applicants.

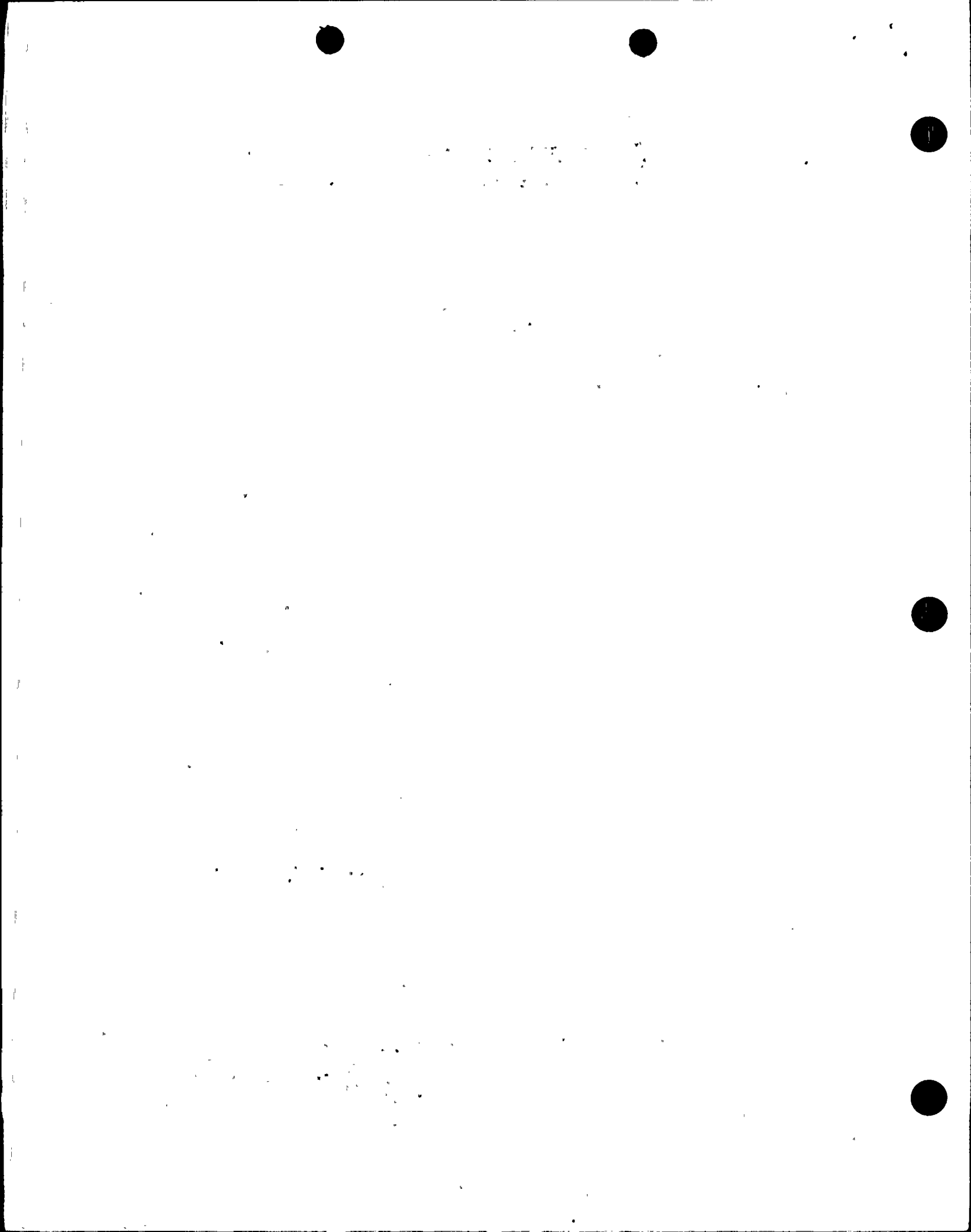
State of Arizona )  
                          ) ss.  
County of Maricopa)

Subscribed and sworn to before me this 18 day of September, 1980.

John M. Allen

My Commission Expires Jan. 23, 1984.

My Commission expires: \_\_\_\_\_



## AMENDMENT NO. 2

## INTRODUCTION

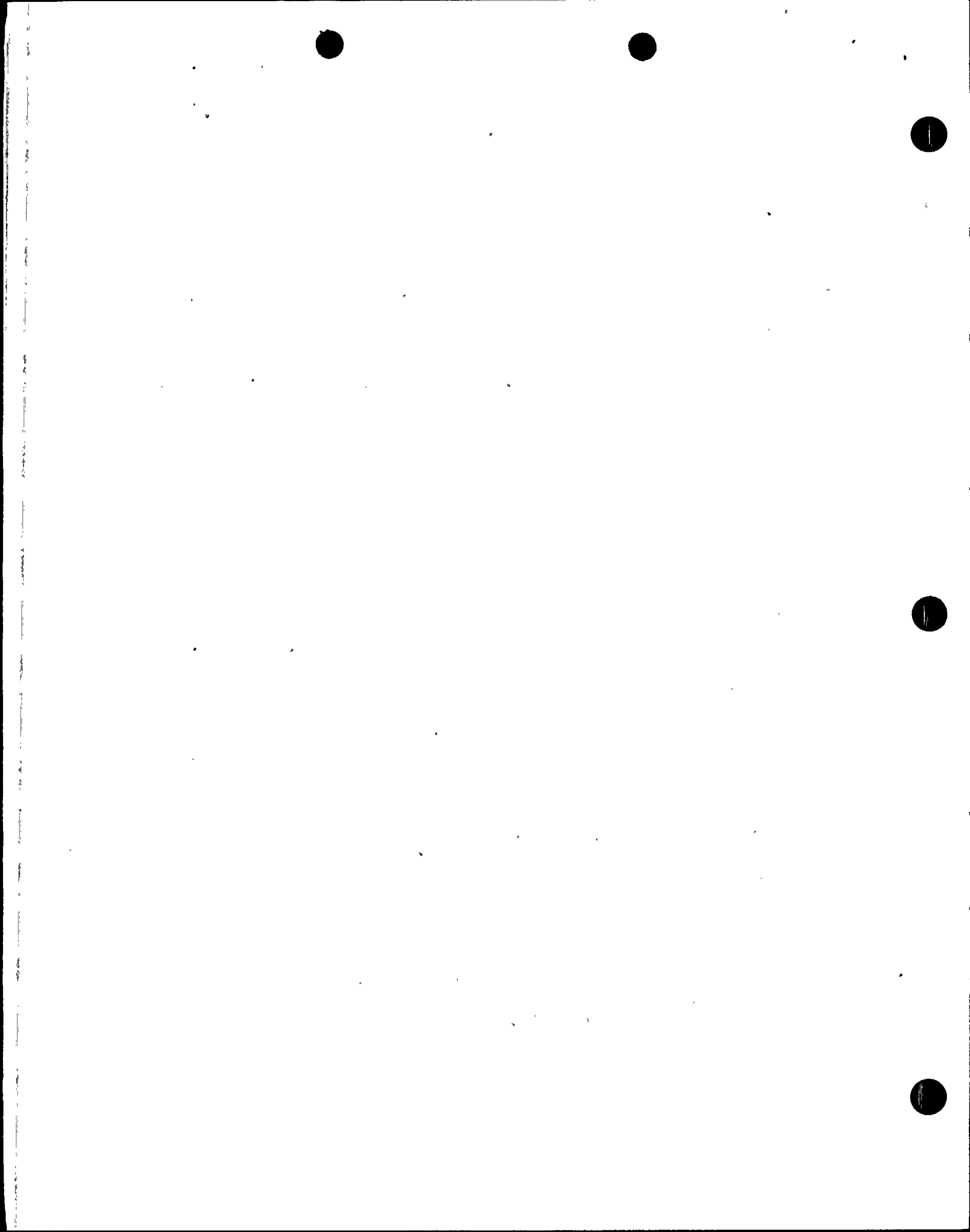
Amendment No. 2 to the Final Safety Analysis Report for Palo Verde Nuclear Generating Station Units 1, 2 and 3 comprises insert pages that address:

1. Questions contained in enclosure 1 to the NRC letter from Mr. D. G. Eisenhut to E. E. Van Brunt, Jr., dated June 18, 1980
2. Miscellaneous text updates and corrections

A change bar and number "2" identify new and amended text; shading identifies amended areas of illustrations. "Amendment 2" and the date "September 1980" identify pages and figures changed by the amendment.

When an insert page in the Amendment has the same number as an existing page in the FSAR, the existing page has been superseded and should be deleted. Where an insert page does not duplicate an existing page, the insert page is new and should be placed in its proper location in the FSAR.

Those holders of the License Application should insert the transmittal letter, included herein, in the License Application.



ARIZONA



PUBLIC SERVICE COMPANY

P. O. BOX 21666 • PHOENIX, ARIZONA 85036

September 29, 1980

ANPP-16383 - JMA/JPS

Director 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

Dear Sir:

Arizona Public Service Company (APS), as Project Manager and Operating Agent for Palo Verde Nuclear Generating Station (PVNGS) Units 1,2&3, is submitting herewith Fifteen (15) copies of Amendment 2 to the PVNGS Units 1,2&3 Final Safety Analysis Report.

This amendment provides an update to the Final Safety Analysis Report and includes the responses to NRC Acceptance Review questions.

Respectfully submitted,

ARIZONA PUBLIC SERVICE COMPANY

By: *Edwin E. Van Brunt*

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

EEVBJr/JPS/av  
Attachment  
cc: J. Kerrigan

On its own behalf and as agent  
for all other joint applicants.

State of Arizona )  
                          ) ss.  
County of Maricopa)

Subscribed and sworn to before me this 18 day of September, 1980.

*John M. Allen*

My Commission Expires Jan. 23, 1983

My Commission expires: \_\_\_\_\_





Vertical text or mark in the center of the page.

Vertical text or mark in the center of the page.



## CHANGE PAGE LIST FOR AMENDMENT 2

RemoveInsert

~~iii/iv~~  
~~xv/xvi~~  
~~xxiii/xxiv~~  
~~1.3-1/-2~~  
~~1.3-5/-6~~  
~~1.3-7/-8~~  
~~1.3-9/-10~~  
~~1.3-11/-12~~  
~~1.3-13/-14~~  
~~1.3-15/-16~~  
~~1.8-55/-56~~  
~~1.9-9/-10~~  
~~2.5-123/-124~~  
~~-~~  
~~2.5-189/Blank~~  
~~-~~  
~~-~~  
~~3-ix/-x~~  
~~3.1-33/Blank~~  
~~3.5-5/-6~~  
~~3.6-23/-24~~  
~~3.7-7/-8~~  
~~3.7-17/-18~~  
~~-~~  
~~3.7-21/-22~~  
~~Figure 3.7-7~~  
~~Figure 3.7-13~~  
~~Figure 3.7-15~~  
 Figure 3.7-16  
 Figure 3.7-17  
 Figure 3.7-18

iii/iv  
 xv/xvi  
 xxiii/xxiv  
 1.3-1/-2  
 1.3-5/-6  
 1.3-7/-8  
 1.3-9/-10  
 1.3-11/-12  
 1.3-13/-14  
 1.3-15/-16  
 1.8-55/-56  
 1.9-9/-10  
 2.5-123/-124  
 2.5-124A/-124B  
 2.5-189/-190  
 2A-i/Blank  
 2A-1/Blank  
 3-ix/-x  
 3.1-33/Blank  
 3.5-5/-6  
 3.6-23/3.6-24  
 3.7-7/3.7-8  
 3.7-17/3.7-18  
 3.7-18A/3.7-18B  
 3.7-21/3.7-22  
 Figure 3.7-7  
 Figure 3.7-13  
 Figure 3.7-15  
 Figure 3.7-16  
 Figure 3.7-17  
 Figure 3.7-18

CHANGE PAGE LIST FOR AMENDMENT 2 (cont)

Remove

Insert

✓ 3.8-3/-4  
 ✓ 3.8-5/-6  
 ✓ -  
 ✓ 3.8-7/-8  
~~3.8-15/-16~~  
~~3.8-25/-26~~  
~~3.8-27/-28~~  
~~3.8-29/-30~~  
 ✓ -  
~~3.8-35/-36~~  
~~3.8-39/-40~~  
~~3.8-53/-54~~  
 ✓ -  
 ✓ 3.8-59/-60  
 ✓ 3.8-65/-66  
 ✓ 3.8-67/-68  
 ✓ 3.8-81/-82  
 ✓ 3.8-85/-86  
 ✓ -  
~~3.8-95/-96~~  
~~3.8-97/-98~~  
 ✓ 3.9-9/-10  
~~3.9-55/-56~~  
~~3.9-57/-58~~  
~~3.9-59/-60~~  
~~3.9-61/-62~~  
 ✓ -  
 ✓ -  
 ✓ -  
 ✓ 3B-iii/-iv  
 ✓ -

3.8-3/-4  
 3.8-5/-6  
 3.8-6A/-6B  
 3.8-7/-8  
 3.8-15/-16  
 3.8-25/-26  
 3.8-27/-28  
 3.8-29/-29A  
 3.8-29B/-30  
 3.8-35/-36  
 3.8-39/-40  
 3.8-53/-54  
 3.8-54A/-54B  
 3.8-59/-60  
 3.8-65/-66  
 3.8-67/-68  
 3.8-81/-82  
 3.8-85/-86  
 3.8-86A/-86B  
 3.8-95/-96  
 3.8-97/-98  
 3.9-9/-10  
 3.9-55/-56  
 3.9-57/-58  
 3.9-59/-60  
 3.9-61/-61A  
 3.9-61B/-62  
 3A-i/Blank  
 3A-1/Blank  
 3B-iii/-iiiA  
 3B-iiiB/-iv





CHANGE PAGE LIST FOR AMENDMENT 2 (cont)

<u>Remove</u>	<u>Insert</u>
✓ 5.2-3B/-4	5.2-3B/-4
✓ -	5.2-4A/-4B
✓ 5.2-5/-5A	5.2-5/-5A
✓ 5.2-5B/-5C	5.2-5B/-5C
✓ 5.2-17/-18	5.2-17/-18
✓ 5.2-21/-22	5.2-21/-22
✓ 5.3-1/-2	5.3-1/-2
✓ 5.4-3/-4	5.4-3/-4
✓ -	5A-i/Blank
✓ -	5A-1/Blank
✓ 6-iii/-iv	6-iii/-iv
✓ 6.2.1-7/-8	6.2.1-7/-8
✓ 6.2.1-21/-22	6.2.1-21/-22
✓ 6.2.1-23/-24	6.2.1-23/-24
✓ 6.2.1-25/-26	6.2.1-25/-26
✓ 6.2.1-77/-78	6.2.1-77/-78
✓ 6.2.1-79/-80	6.2.1-79/-80
✓ 6.2.1-85/-86	6.2.1-85/-86
✓ 6.2.1-89/-90	6.2.1-89/-90
✓ 6.2.4-9/-10	6.2.4-9/-10
✓ Figure 6.2.4-1 (Sheet 7 of 9)	Figure 6.2.4-1 (Sheet 7 of 9)
✓ 6.3-7/-8	6.3-7/-8
✓ -	6.3-29/Blank
✓ -	6A-i/Blank
✓ -	6A-1/Blank
✓ 7.3-23/-24	7.3-23/-24
✓ 7.3-33/-34	7.3-33/-34
✓ 7.3-37/-38	7.3-37/-38
✓ 7.3-39/-40	7.3-39/-40
✓ Figure 7.3-1	Figure 7.3-1

## CHANGE PAGE LIST FOR AMENDMENT 2 (cont)

<u>Remove</u>	<u>Insert</u>
✓ 8.3-5/-6 through	8.3-5/-6 through
✓ 8.3-21/-22	8.3-21/-22
✓ 8.3-79/-80	8.3-79/-80
✓ 9-i/-ii	9-i/-ii
✓ 9.1-29/-30	9.1-29/-30
✓ -	9.1-30A/-30B
✓ 9.2-101/-102	9.2-101/-102
✓ 9.2-103/-104	9.2-103/-104
✓ 9.5-5/-6	9.5-5/-6
✓ 9.5-49/-50	9.5-49/-50
✓ 10.3-5/-6	10.3-5/-6
✓ 11-i/-ii	11-i/-ii
✓ -	11-iiA/-iiB
✓ 11-iii/-iv	11-iii/-iv
✓ 11-v/Blank	11-v/Blank
✓ 11.1-23/-24	11.1-23/-24
✓ 11.1-25/-26	11.1-25/-26/-27 Deleted
✓ 11.1-27/Blank	-
✓ 11.5-7/Blank	11.5-7/Blank
✓ 11.5-9/Blank	11.5-9/Blank
✓ 11.5-10/Blank	11.5-10/Blank
✓ 11.5-11/Blank	11.5-11/Blank
✓ 11.5-12/Blank	11.5-12/Blank
✓ 11.5-17/-18	11.5-17/-18
✓ 11.5-29/-30	11.5-29/-30
✓ 11.5-33/-34 through	11.5-33/-34 through
✓ 11.5-45/-46	11.5-45/-46
✓ Figure 11.5-1	Figure 11.5-1
✓ 12.3-7/-8	12.3-7/-7A
✓ -	12.3-7B/-8
✓ 14-i/-ii	14-i/-ii
✓ 14-iii/-iv	14-iii/-iv

CHANGE PAGE LIST FOR AMENDMENT 2 (cont)

Remove

✓14.2-1/-2 through

✓14.2-21/-22

✓ -

✓ -

✓Figure 14.2-1

✓Figure 14.2-2

✓ -

✓ -

✓ -

✓ -

✓ -

✓ -

✓ -

16.3/4.3-7/-8

✓16.3/4.3-9/-10

Insert

14.2-1/-2 through

14.2-21/-22

14.2-23/-24

14.2-25/-26

Figure 14.2-1

Figure 14.2-2 Deleted

14A-i/Blank

14A-1/Blank

14B Tab

14B Title Page/Blank

14B-1/-2 through

14B-59/Blank

16.3/4.3-7/-8

16.3/4.3-9/-10