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STN-50-529 Palo Verde Nuclear Station, Unit 2, Arizona Publi 05000529
STN-50-530 Palo Verde Nuclear Station, Unit 3, Arizona Publi 05000530
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COLVILLE,J.M. Arizona Nuclear Power Project (formerly Arizona Public Serv
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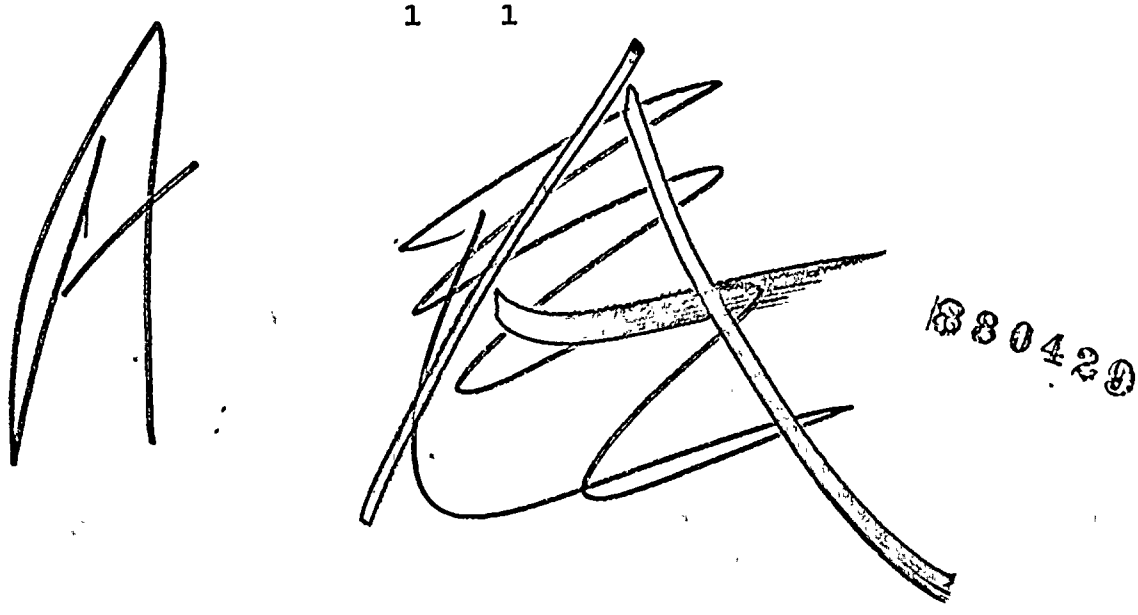
NOTES: 1 1



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RIDS/ADDS

NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-528
UNIT NAME PVNGS-1
DATE 04/12/88
COMPLETED BY J.M. Colville
TELEPHONE 602-393-2679

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 1
2. Reporting Period: March 1988
3. Licensed Thermal Power (MWt): 3800
4. Nameplate Rating (Gross MWe): 1403
5. Design Electrical Rating (Net MWe): 1270
6. Maximum Dependable Capacity (Gross MWe): 1303
7. Maximum Dependable Capacity (Net MWe): 1221
8. If Changes Occur In Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons: _____
9. Power Level to Which Restricted, If Any (Net MWe): NONE
10. Reasons For Restrictions, If Any: _____

	This Month	Yr.-to-Date	Cumulative
11. Hours in Reporting Period	744	2184	19056
12. Number of Hours Reactor Was Critical	580.2	580.2	10,557.4
13. Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14. Hours Generator On-Line	518.7	518.7	10,235.8
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	1,667,501	1,667,501	36,700,338
17. Gross Electrical Energy Generated (MWH)	582,000	582,000	12,725,300
18. Net Electrical Energy Generated (MWH)	530,379	530,379	11,858,304.
19. Unit Service Factor	69.7%	23.8%	53.7%
20. Unit Availability Factor	69.7%	23.8%	53.7%
21. Unit Capacity Factor (Using MDC Net)	58.4%	19.9%	51.0%
22. Unit Capacity Factor (Using DER Net)	56.1%	19.1%	49.0%
23. Unit Forced Outage Rate	0.0%	69.1%	29.5%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): None
25. If Shutdown At End of Report Period, Estimated Date of Startup: _____
26. Units in Test Status (Prior To Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY	5/85	5/25/85
INITIAL ELECTRICITY	6/85	6/10/85
COMMERCIAL OPERATION	11/85	1/28/86

IE24 1/1

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-528
UNIT NAME PVNGS-1
DATE 04/12/88
COMPLETED BY J.M. Colville
TELEPHONE 602-393-2679

MONTH: March 1988

DAY	AVERAGE DAILY POWER LEVEL	DAY	AVERAGE DAILY POWER LEVEL
1	0	17	1,209
2	0	18	1,209
3	0	19	1,247
4	0	20	1,268
5	0	21	1,239
6	0	22	1,205
7	0	23	1,009
8	0	24	1,109
9	0	25	1,268
10	2	26	1,272
11	120	27	1,268
12	597	28	1,272
13	810	29	1,272
14	822	30	1,276
15	813	31	1,272
16	1,130		

NUCLEAR POWER PLANT

DOCKET NO.	[illegible]
UNIT NAME	[illegible]
DATE	[illegible]
COMPLETED BY	[illegible]
TELEPHONE	[illegible]

MONTH: [illegible]

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	[illegible]	17	[illegible]
2	[illegible]	18	[illegible]
3	[illegible]	19	[illegible]
4	[illegible]	20	[illegible]
5	[illegible]	21	[illegible]
6	[illegible]	22	[illegible]
7	[illegible]	23	[illegible]
8	[illegible]	24	[illegible]
9	[illegible]	25	[illegible]
10	[illegible]	26	[illegible]
11	[illegible]	27	[illegible]
12	[illegible]	28	[illegible]
13	[illegible]	29	[illegible]
14	[illegible]	30	[illegible]
15	[illegible]	31	[illegible]
16	[illegible]		

REFUELING INFORMATION

DOCKET NO.	50-528
UNIT	PVNGS-1
DATE	04/12/88
COMPLETED BY	J.M. Colville
TELEPHONE	602-393-2679

1. Scheduled date for next refueling shutdown.

   03/21/89

2. Scheduled date for restart following refueling.

   05/29/89

3. Will refueling or resumption or operation thereafter require a Technical Specification change or other license amendment?

   To be determined

4. Scheduled date for submitting proposed licensing action and supporting information.

   To be determined

5. Important Licensing considerations associated with refueling, e.g. new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures.

   To be determined

REFUELING INFORMATION

DOCKET NO. 50-528
UNIT PVNGS-1
DATE 04/12/88
COMPLETED BY J.L. Hull
TELEPHONE 602-393-2679

(Continued)

6. The number of fuel assemblies.

   a) In the core. 241

   b) In the spent fuel storage pool. 80

7. Licensed spent fuel storage capacity. 1329

   Intended change in spent fuel storage capacity. None

8. Projected date of last refueling that can be discharged to spent fuel storage pool assuming present capacity.

   2006 (18 Months reloads and full core discharge capability).

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO. 50-528
UNIT PVNGS-1
DATE 03/07/88
COMPLETED BY J.L. Hull
TELEPHONE 602-393-2679

February 1988

03/01	0000	Unit in Mode 4.
03/01	0211	Entered Mode 3.
03/05	2126	Entered Mode 2 - Reactor Critical.
03/07	0147	Entered Mode 3 due to contactor problem with CEDM MG sets.
03/08	0010	Entered Mode 2 - Reactor Critical.
03/09	1245	Entered Mode 1.
03/10	0643	Synchronized Main Generator to Grid.
03/10	1256	Manually tripped Main Turbine for Overspeed Testing.
03/10	1532	Synchronized Main Generator to Grid.
03/19	1000	Reactor power at 100%.
03/22	1845	Reactor power reduced to 80% due to SG Chemistry being out of specification as a result of the polishers being out of service for regeneration.
03/24	1645	Reactor power at 100%.

REPORT NO. [illegible]
TO: [illegible]
DATE [illegible]
COMPLETED BY [illegible]
TELEPHONE [illegible]

February, 1985

Date	Time	Event
03/0[illegible]	[illegible]	Shutdown [illegible]
03/0[illegible]	[illegible]	Entered Mode 2 [illegible] Reactor [illegible] startup.
03/[illegible]	0147	Started [illegible] Boron [illegible] [illegible]
03/0[illegible]	[illegible]	Entered Mode 1 - Reactor Critical.
03/1[illegible]	1245	[illegible]
03/1[illegible]	[illegible]	Synchronized Main Generator to grid.
03/16	1115	Manually tripped Main Turbine [illegible] Overspeed [illegible] testing.
03/[illegible]	1532	Synchronized Main Generator [illegible]
03/19	[illegible]	Reactor power at 100%.
[illegible]/22	[illegible]	Reactor power reduced to 70% due to 30 [illegible], [illegible] out of specification as a result of [illegible] polishers being out of service for regeneration.
[illegible]/24	[illegible]	Reactor power at 100%.

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO: 50-528
UNIT NAME: PVNGS-1
DATE: 4/12/88
COMPLETED BY: J.M. Colville
TELEPHONE: 602-393-2679

No.	Date	Type[1]	Duration Hours	Reason[2]	Method of Shutting Down Reactor[3]	LER NO.	System Code[4]	Component Code[5]	Cause and Corrective Action to Prevent Recurrence
10	(Cont'd from 1987)	F	222.7	A	-	-	-	-	Unit shutdown to repair an inoperable Control Element Assembly.
1	3/10	S	2.6	B	N/A	N/A	N/A	N/A	Manually tripped Main Turbine for Overspeed Testing.
2	3/22	F	N/A	B	5	N/A	N/A	N/A	Reactor power reduced to 80% due to SG Chemistry being out of specification as a result of the polishers being out of service for regeneration.

[1] F-Forced
S-Scheduled

[2] Reason:
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training & License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

[3] Method:
1-Manual
2-Manual Scram
3-Automatic Scram
4-Continuation from Previous Month
5-Reduction of 20% or Greater in the Past 24 Hours
9-Other (Explain)

[4] Exhibit F - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG 0161)

[5] Exhibit H-Same Source

NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-529
UNIT NAME PVNGS-2
DATE 04/12/88
COMPLETED BY J.M. Colville
TELEPHONE 602-393-2679

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 2
2. Reporting Period: March 1988
3. Licensed Thermal Power (MWt): 3800
4. Nameplate Rating (Gross MWe): 1403
5. Design Electrical Rating (Net MWe): 1270
6. Maximum Dependable Capacity (Gross MWe): 1303
7. Maximum Dependable Capacity (Net MWe): 1221
8. If Changes Occur In Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons: _____
9. Power Level to Which Restricted, If Any (Net MWe): NONE
10. Reasons For Restrictions, If Any: _____

	This Month	Yr.-to-Date	Cumulative
11. Hours in Reporting Period	744	2184	13,440
12. Number of Hours Reactor Was Critical	0	1202	10,477.1
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	0	1202	10,328.2
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	0	4,508,600.	37,715,767
17. Gross Electrical Energy Generated (MWH)	0	1,588,100.	13,249,370
18. Net Electrical Energy Generated (MWH)	0	1,487,775.	12,424,657
19. Unit Service Factor	0.0%	55.0%	76.8%
20. Unit Availability Factor	0.0%	55.0%	76.8%
21. Unit Capacity Factor (Using MDC Net)	0.0%	55.8%	75.7%
22. Unit Capacity Factor (Using DER Net)	0.0%	53.6%	72.8%
23. Unit Forced Outage Rate	0.0%	0.0%	5.9%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): Currently in Refueling Outage
25. If Shutdown At End of Report Period, Estimated Date of Startup: 05/15/88
26. Units in Test Status (Prior To Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY	3/86	4/18/86
INITIAL ELECTRICITY	6/86	5/20/86
COMMERCIAL OPERATION	11/86	9/19/86

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-529
UNIT PVNGS-2
DATE 04/12/88
COMPLETED BY J.M. Colville
TELEPHONE 602-393-2679

MONTH: March 1988

DAY	AVERAGE DAILY POWER LEVEL	DAY	AVERAGE DAILY POWER LEVEL
1	0	17	0
2	0	18	0
3	0	19	0
4	0	20	0
5	0	21	0
6	0	22	0
7	0	23	0
8	0	24	0
9	0	25	0
10	0	26	0
11	0	27	0
12	0	28	0
13	0	29	0
14	0	30	0
15	0	31	0
16	0		

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-[illegible]
UNIT [illegible]
DATE [illegible]
COMPLETED BY [illegible]
TELEPHONE [illegible]

MONTH March 1984

DAY	AVERAGE DAILY POWER LEVEL	DAY	AVERAGE DAILY POWER LEVEL
1	0	17	0
2	0	18	0
3	0	19	0
4	0	20	0
5	0	21	0
6	0	22	0
7	0	23	0
8	0	24	0
9	0	25	0
10	0	26	0
11	0	27	0
12	0	28	0
13	0	29	0
14	0	30	0
15	0	31	0
16	0		

REFUELING INFORMATION

DOCKET NO.	50-529
UNIT	PVNGS-2
DATE	04/12/88
COMPLETED BY	J.M. Colville
TELEPHONE	602-393-2679

1. Scheduled date for next refueling shutdown.

   09/23/89

2. Scheduled date for restart following refueling.

   12/01/89

3. Will refueling or resumption or operation thereafter require a Technical Specification change or other license amendment?

   To be determined

4. Scheduled date for submitting proposed licensing action and supporting information.

   To be determined

5. Important Licensing considerations associated with refueling, e.g. new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures.

   To be determined

Publishing Information

REUELING INFORMATION

DOCKET NO. 50-529
UNIT PVNGS-2
DATE 04/12/88
COMPLETED BY J.M.Colville
TELEPHONE 602-393-2679

(Continued)

6. The number of fuel assemblies.

   a) In the core. 0

   b) In the spent fuel storage pool. 241*

7. Licensed spent fuel storage capacity. 1329

   Intended change in spent fuel storage capacity. None

8. Projected date of last refueling that can be discharged to spent fuel storage pool assuming present capacity.

   2006 (18 Months reloads and full core discharge capability).

* Off-Load for Refueling Outage

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO. 50-529
UNIT PVNGS-2
DATE 04/12/88
COMPLETED BY J.M. Colville
TELEPHONE 602-393-2679

March 1988

03/01	0000	Unit in Mode 5.
03/04	1435	Entered Mode 6.
03/21	0040	Completed Core Off Load - Exited Mode 6.

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO: 50-529
UNIT NAME: PVNGS-2
DATE: 4/12/88
COMPLETED BY: J.M. Colville
TELEPHONE: 602-393-2679

No.	Date	Type[1]	Duration Hours	Reason[2]	Method of Shutting Down Reactor[3]	LER NO.	System Code[4]	Component Code[5]	Cause and Corrective Action to Prevent Recurrence
2 (Cont'd)		S	744	G	-	-	-	-	Unit shutdown due to Refueling Outage.

[1] F-Forced
S-Scheduled

[2] Reason:
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training & License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

[3] Method:
1-Manual
2-Manual Scram
3-Automatic Scram
4-Continuation from Previous Month
5-Reduction of 20% or Greater in the Past 24 Hours
9-Other (Explain)

[4] Exhibit F - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG 0161)

[5] Exhibit H-Same Source

NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-530
UNIT NAME PVNGS-3
DATE 04/12/88
COMPLETED BY J.M. Colville
TELEPHONE 602-393-2679

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 3
2. Reporting Period: March 1988
3. Licensed Thermal Power (MWt): 3800
4. Nameplate Rating (Gross MWe): 1403
5. Design Electrical Rating (Net MWe): 1270
6. Maximum Dependable Capacity (Gross MWe): 1303
7. Maximum Dependable Capacity (Net MWe): 1221
8. If Changes Occur In Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons: _____
9. Power Level to Which Restricted, If Any (Net MWe): NONE
10. Reasons For Restrictions, If Any: _____

		This Month	Yr.-to-Date	Cumulative
11.	Hours in Reporting Period	744	2016	2016
12.	Number of Hours Reactor Was Critical	744	2016	2016
13.	Reactor Reserve Shutdown Hours	0	0	0
14.	Hours Generator On-Line	744	2016	2016
15.	Unit Reserve Shutdown Hours	0	0	0
16.	Gross Thermal Energy Generated (MWH)	2,811,696.	7,587,912.0	7,587,912.
17.	Gross Electrical Energy Generated (MWH)	995,400.	2,682,000.	2,682,000.
18.	Net Electrical Energy Generated (MWH)	941,026.	2,537,784.	2,537,784.
19.	Unit Service Factor	100.0%	100.0%	100.0%
20.	Unit Availability Factor	100.0%	100.0%	100.0%
21.	Unit Capacity Factor (Using MDC Net)	103.6%	103.1%	103.1%
22.	Unit Capacity Factor (Using DER Net)	99.6%	99.1%	99.1%
23.	Unit Forced Outage Rate	0	0	0

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): None
25. If Shutdown At End of Report Period, Estimated Date of Startup: _____
26. Units in Test Status (Prior To Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY	07/87	10/25/87
INITIAL ELECTRICITY	07/87	11/28/87
COMMERCIAL OPERATION	09/87	01/08/88

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-530
UNIT PVNGS-3
DATE 04/12/88
COMPLETED BY J.M. Colville
TELEPHONE 602-393-2679

MONTH: March 1988

DAY	AVERAGE DAILY POWER LEVEL	DAY	AVERAGE DAILY POWER LEVEL
1	1,270	16	1,270
2	1,266	17	1,266
3	1,262	18	1,262
4	1,266	19	1,266
5	1,249	20	1,270
6	1,249	21	1,270
7	1,266	22	1,262
8	1,266	23	1,266
9	1,266	24	1,270
10	1,270	25	1,254
11	1,270	26	1,270
12	1,266	27	1,249
13	1,270	28	1,258
14	1,266	29	1,270
15	1,266	30	1,262
		31	1,270

REFUELING INFORMATION

DOCKET NO.	50-530
UNIT	PVNGS-3
DATE	04/12/88
COMPLETED BY	J.M. Colville
TELEPHONE	602-393-2679

1. Scheduled date for next refueling shutdown.

   03/03/89

2. Scheduled date for restart following refueling.

   05/27/89

3. Will refueling or resumption or operation thereafter require a Technical Specification change or other license amendment?

   Not Yet Determined

   What will these be?

   Not Yet Determined

4. Scheduled date for submitting proposed licensing action and supporting information.

   Not Yet Determined

5. Important Licensing considerations associated with refueling, e.g. new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures.

   Not Yet Determined

6. The number of fuel assemblies.

   a) In the core. 241

   b) In the spent fuel storage pool. 0

7. Licensed spent fuel storage capacity. 1329

   Intended change in spent fuel storage capacity. None

8. Projected date of last refueling that can be discharged to spent fuel storage pool assuming present capacity.

   2007 (18 Months reloads and full core discharge capability).

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO. 50-530
UNIT PVNGS-3
DATE 04/12/88
COMPLETED BY J.M. Colville
TELEPHONE 602-393-2679

March 1988

03/01	0000	Unit in Mode 1 - Reactor Power 100%.
03/05	2002	Power reduction for 43ST-3SF01, CEA Surveillance Testing. Reactor power approximately 90%.
03/31	2400	Unit in Mode 1 - Reactor Power 100%.

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO: 50-530
UNIT NAME: PVNGS-3
DATE: 4/12/88
COMPLETED BY: J.M. Colville
TELEPHONE: 602-393-2679

No.	Date	Type[1]	Duration Hours	Reason[2]	Method of Shutting Down Reactor[3]	LER NO.	System Code[4]	Component Code[5]	Cause and Corrective Action to Prevent Recurrence

NO UNIT SHUTDOWNS OR POWER REDUCTIONS FOR MARCH

[1] F-Forced
S-Scheduled

[2] Reason:
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training & License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

[3] Method:
1-Manual
2-Manual Scram
3-Automatic Scram
4-Continuation from Previous Month
5-Reduction of 20% or Greater in the Past 24 Hours
9-Other (Explain)

[4] Exhibit F - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG 0161)

[5] Exhibit H-Same Source

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

212-00157-JGH/TJB
April 15, 1988

Docket Nos. STN 50-528/529/530

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

Gentlemen:

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2 and 3
March Monthly Operating Report
File: 88-024-404/88-056-026

Attached are the March Monthly Operating Reports prepared and submitted pursuant to Specification 6.9.1.6 of Appendix A (Technical Specifications) to the Palo Verde Nuclear Generating Station, Units 1, 2 and 3 Operating Licenses. By copy of this letter, we are also forwarding a copy of the Monthly Operating Reports to the Regional Administrator of the Region V Office.

If you have any questions, please contact Mr. T. J. Bloom, at (602) 371-4187.

Very truly yours,

J. G. Haynes
Vice President
Nuclear Production

JGH/TJB/ksr
Attachments

cc: E. E. Van Brunt, Jr. (all w/a)
J. B. Martin
E. A. Licitra
A. C. Gehr
J. A. Amenta
INPO Records Center

IE24
1/1

212-00157-JGH/TJB
April 15, 1988

bcc:

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R. M. Butler	(6102)	
O. J. Zeringue	(6915)	
J. M. Allen	(6932)	
G. W. Sowers	(6102)	
W. M. Simko	(6077)	
L. L. Henson	(6078)	
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R. E. Younger	(6428)	
R. J. Adney	(6070)	
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J. D. Wade	(7434)	
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D. Wootten	(7035)	
E. C. Sterling	(7034)	
J. E. Allen	(7106)	
F. Buckingham	(6132)	
LCTS Coordinator	(7048)