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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

FULTON, J.D. Arizona Public Service Co. (formerly Arizona Nuclear Power

LEVINE, J.M. Arizona Public Service Co. (formerly Arizona Nuclear Power

RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: Monthly operating rept for Apr 1996 for Palo Verde Nuclear
Generating Station, Unit 1.

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12/22/11

Arizona Public Service Company
PALO VERDE NUCLEAR GENERATING STATION
P.O. BOX 52034 • PHOENIX, ARIZONA 85072-2034

JAMES M. LEVINE
VICE PRESIDENT
NUCLEAR PRODUCTION

182-06139-JML/JLT/JDF
May 14, 1996

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Dear Sirs:

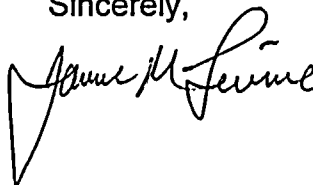
**Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2, and 3
Docket Nos. STN 50-528/529/530
Monthly Operating Reports for APRIL 1996**

Enclosed are the Monthly Operating Reports for APRIL 1996, prepared and submitted pursuant to Specification 6.9.1.6 of Appendix A (Technical Specifications) to the PVNGS Units 1, 2, and 3 Operating Licenses.

By copy of this letter, Arizona Public Service Company is also forwarding the Monthly Operating Reports to the Regional Administrator, NRC Region IV.

If you have any questions, please contact Judy Fulton at (602) 393-5277.

Sincerely,



JML/JLT/JDF/clj

Enclosures: APRIL 1996 Monthly Operating Reports

cc: L. J. Callan (all w/enclosures)
K. E. Perkins
NRC Senior Resident Inspector
INPO Records Center
Utility Data Institute

9605200080 960430
PDR ADCK 05000528
R PDR

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11

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NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-528
 UNIT NAME PVNGS-1
 DATE 5/9/96
 COMPLETED BY J. D. Fulton
 TELEPHONE (602) 393-5277

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 1
2. Reporting Period: April 1996
3. Licensed Thermal Power (MWt): 3800
4. Nameplate Rating (Gross MWe): 1403
5. Design Electrical Rating (Net MWe): 1249
6. Maximum Dependable Capacity (Gross MWe): 1299
7. Maximum Dependable Capacity (Net MWe): 1227
8. If Changes Occur In Capacity Ratings (Item Numbers 3 Through 7)
 Since Last Report, Give Reasons: N/A
9. Power Level to Which Restricted, If Any (Net MWe): None
10. Reasons For Restrictions, If Any: N/A

	Unit 1 Generating Statistics	This Month	Yr. to Date	Cumulative
11.	Hours In Reporting Period	720	2,904	89,904
12.	Hours Reactor was Critical	364.1	2,448.1	60,411.1
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator was On-Line	363.4	2,378.1	59,281.2
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	1,373,041	8,986,110	214,522,314
17.	Gross Electrical Energy Generated (MWH)	472,900	3,090,200	74,200,700
18.	Net Electrical Energy Generated (MWH)	439,043	2,900,956	69,658,677
19.	Unit Service Factor (%)	50.5%	81.9%	65.9%
20.	Unit Availability Factor (%)	50.5%	81.9%	65.9%
21.	Unit Capacity Factor (Using MDC Net)	49.7%	81.4%	63.5%
22.	Unit Capacity Factor (Using DER Net)	48.8%	80.0%	61.0%
23.	Unit Forced Outage Rate (%)	0.0%	6.6%	12.0%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date and Duration of Each): 6th Refueling outage is scheduled for 9/7/96 through 10/27/96 (50 days).
25. If Shutdown At End of Report Period, Estimated Date of Start-up: N/A

INITIAL CRITICALITY
 INITIAL ELECTRICITY
 COMMERCIAL OPERATION

Forecast
05/85
06/85
12/85

Achieved
05/25/85
06/10/85
01/28/86

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-528
 UNIT NAME PVNGS-1
 DATE 5/9/96
 COMPLETED BY J. D. Fulton
 TELEPHONE (602) 393-5277

MONTH: April 1996

DAY AVERAGE DAILY POWER LEVEL

1	1243
2	1241
3	1241
4	1241
5	1238
6	1240
7	1240
8	1239
9	1239
10	1237
11	1238
12	1236
13	1240
14	1241
15	1222
16	76

DAY AVERAGE DAILY POWER LEVEL

17	0
18	0
19	0
20	0
21	0
22	0
23	0
24	0
25	0
26	0
27	0
28	0
29	0
30	0
31	

REFUELING INFORMATION

DOCKET NO. 50-528
UNIT NAME PVNGS-1
DATE 5/9/96
COMPLETED BY J. D. Fulton
TELEPHONE (602) 393-5277

1. Scheduled date for next refueling shutdown.

The 6th refueling outage is scheduled to begin on 09/07/96.

2. Scheduled date for restart following refueling.

10/27/96.

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

No

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

5/20/96

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, and new operating procedures.

None.

6. The number of fuel assemblies.

a) In the core. 241

b) In the spent fuel storage pool. 456

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.

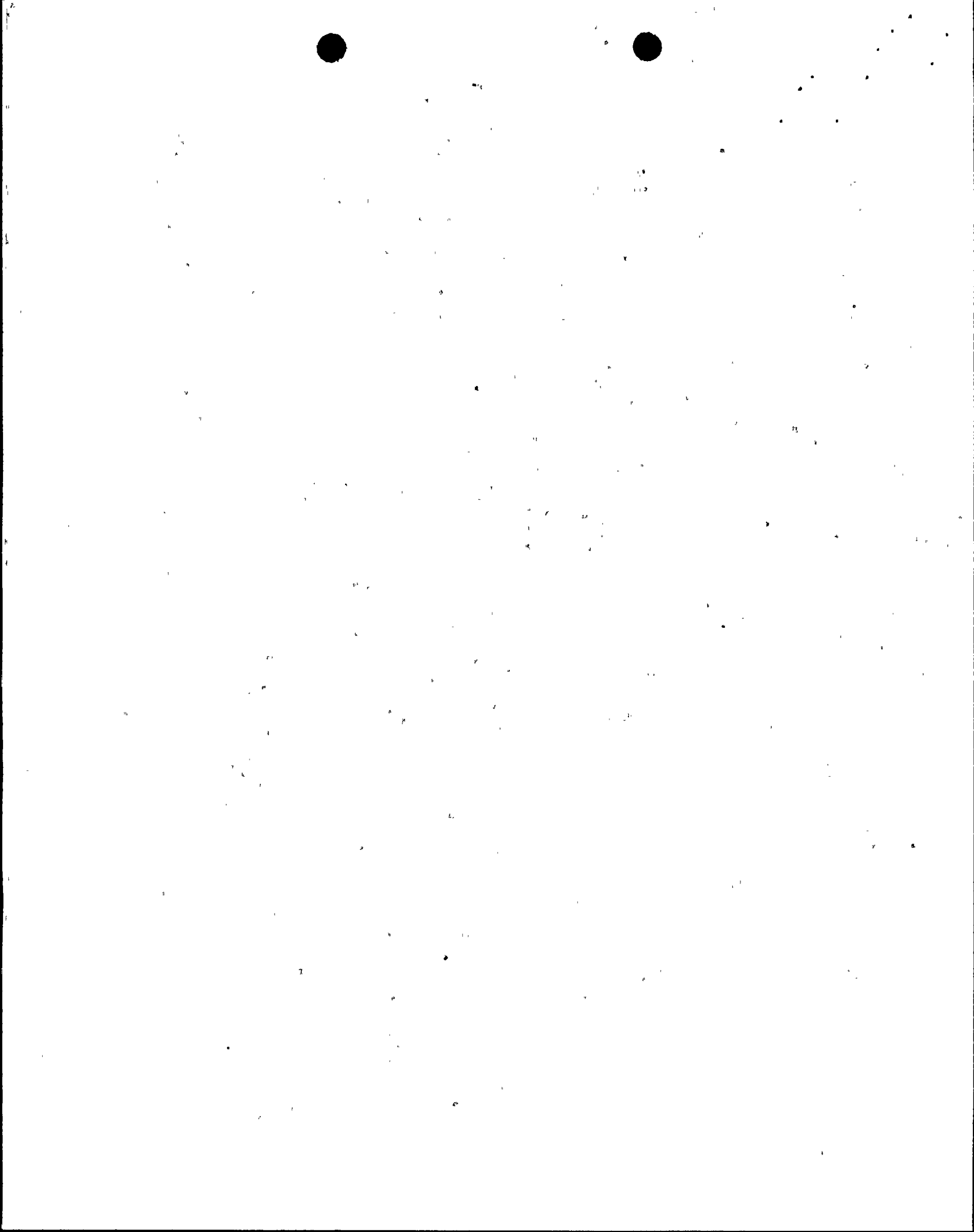
2005 (18 Month reloads and full core discharge capability).

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO. 50-528
UNIT NAME PVNGS-1
DATE 5/9/96
COMPLETED BY J. D. Fulton
TELEPHONE (602) 393-5277

April 1996

04/01	0000	Unit began the month with RX in Mode 1 at 100% power.
04/15	2130	Commenced RX shutdown due to RCP 2B high vibration.
04/16	0322	Manually tripped RX; in Mode 3.
04/16	1440	Entered Mode 4.
04/17	0522	Entered Mode 5
04/29	0554	Entered Mode 4
04/29	1308	Entered Mode 3.
04/30	2229	Entered Mode 2.
04/30	2315	RX Critical.
04/30	2359	Unit ended the month in Mode 2 in process of RX Start-up.



SHUTDOWNS AND POWER REDUCTIONS
April 1996

DOCKET NO 50-528
UNIT NAME PVNGS-1
DATE 5/9/96
COMPLETED BY J. D. Fulton
TELEPHONE (602)393-5277

No.	Date	Type ¹	Outage Duration Hours	Reason ²	Method of Shutting Down Reactor ³	LER No.	System Code ⁴	Component Code ⁵	Cause and Corrective Action to Prevent Occurrence
96-02	04/16/96	S	356.6	B	2	N/A	N/A	N/A	Manually tripped RX to perform repairs to Reactor Coolant Pump 2B.

¹F-Forced
S-Scheduled

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

³Method:
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)

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

⁵Exhibit H-Same Source

NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-529
 UNIT NAME PVNGS-2
 DATE 5/9/96
 COMPLETED BY J. D. Fulton
 TELEPHONE (602) 393-5277

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 2
2. Reporting Period: April 1996
3. Licensed Thermal Power (MWt): 3800
4. Nameplate Rating (Gross MWe): 1403
5. Design Electrical Rating (Net MWe): 1249
6. Maximum Dependable Capacity (Gross MWe): 1299
7. Maximum Dependable Capacity (Net MWe): 1227
8. If Changes Occur In Capacity Ratings (Item Numbers 3 Through 7)
 Since Last Report, Give Reasons: N/A
9. Power Level to Which Restricted, If Any (Net MWe): None
10. Reasons For Restrictions, If Any: N/A

	Unit 2 Generating Statistics	This Month	Yr. to Date	Cumulative
11.	Hours In Reporting Period	720	2,904	84,288
12.	Hours Reactor was Critical	0.0	1,771.9	59,907.0
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator was On-Line	0.0	1,747.1	58,769.3
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	0	6,502,203	214,529,816
17.	Gross Electrical Energy Generated (MWH)	0	2,261,700	74,591,170
18.	Net Electrical Energy Generated (MWH)	0	2,138,955	69,903,706
19.	Unit Service Factor (%)	0.0%	60.2%	69.7%
20.	Unit Availability Factor (%)	0.0%	60.2%	69.7%
21.	Unit Capacity Factor (Using MDC Net)	0.0%	60.0%	67.9%
22.	Unit Capacity Factor (Using DER Net)	0.0%	59.0%	65.3%
23.	Unit Forced Outage Rate (%)	0.0%	2.9%	5.3%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date and Duration of Each): N/A

25. If Shutdown At End of Report Period, Estimated Date of Start-up: N/A

INITIAL CRITICALITY	Forecast	Achieved
INITIAL ELECTRICITY	<u>03/86</u>	<u>04/18/86</u>
COMMERCIAL OPERATION	<u>06/86</u>	<u>05/20/86</u>
	<u>12/86</u>	<u>09/19/86</u>

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-529
 UNIT NAME PVNGS-2
 DATE 5/9/96
 COMPLETED BY J. D. Fulton
 TELEPHONE (602) 393-5277

MONTH: April 1996

DAY	AVERAGE DAILY POWER LEVEL
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	0
15	0
16	0

DAY	AVERAGE DAILY POWER LEVEL
17	0
18	0
19	0
20	0
21	0
22	0
23	0
24	0
25	0
26	0
27	0
28	0
29	0
30	0
31	

REFUELING INFORMATION

DOCKET NO. 50-529
UNIT NAME PVNGS-2
DATE 5/9/96
COMPLETED BY J. D. Fulton
TELEPHONE (602) 393-5277

1. Scheduled date for next refueling shutdown.

The 7th refueling outage is scheduled for 09/20/97.

2. Scheduled date for restart following refueling.

11/07/97.

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

No.

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

N/A

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, and new operating procedures.

N/A

6. The number of fuel assemblies.

a) In the core. 241

b) In the spent fuel storage pool. 544

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.

2005 (18 Month reloads and full core discharge capability).

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO. 50-529
UNIT NAME PVNGS-2
DATE 5/9/96
COMPLETED BY J. D. Fulton
TELEPHONE (602) 393-5277

April 1996

04/01	0000	Unit began the month with Core Unloaded in Refueling Outage.
04/17	1123	Began Core Reload, entered Mode 6
04/19	2255	Completed Core Reload.
04/26	1050	Entered Mode 5.
04/30	0355	Entered Mode 4.
04/30	1218	Entered Mode 3.
04/30	2359	Unit ended the month in Mode 3.

SHUTDOWNS AND POWER REDUCTIONS
April 1996

DOCKET NO 50-529
UNIT NAME PVNGS-2
DATE 5/9/96
COMPLETED BY J. D. Fulton
TELEPHONE (602)393-5277

No.	Date	Type ¹	Outage Duration Hours	Reason ²	Method of Shutting Down Reactor ³	LER No.	System Code ⁴	Component Code ⁵	Cause and Corrective Action to Prevent Occurrence
96-02	03/16/96	S	1103.9	C	2	N/A	N/A	N/A	RX manually tripped to begin the sixth refueling outage.

¹F-Forced
S-Scheduled

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

³Method:
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)

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

⁵Exhibit H-Same Source

NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-530
 UNIT NAME PVNGS-3
 DATE 5/9/96
 COMPLETED BY J. D. Fulton
 TELEPHONE (602) 393-5277

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 3
2. Reporting Period: April 1996
3. Licensed Thermal Power (MWt): 3800
4. Nameplate Rating (Gross MWe): 1403
5. Design Electrical Rating (Net MWe): 1253
6. Maximum Dependable Capacity (Gross MWe): 1302
7. Maximum Dependable Capacity (Net MWe): 1230
8. If Changes Occur In Capacity Ratings (Item Numbers 3 Through 7)
 Since Last Report, Give Reasons: N/A
9. Power Level to Which Restricted, If Any (Net MWe): None
10. Reasons For Restrictions, If Any: N/A

	Unit 3 Generating Statistics	This Month	Yr. to Date	Cumulative
11.	Hours In Reporting Period	720	2,904	72,864
12.	Hours Reactor was Critical	720.0	2,904.0	55,597.0
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator was On-Line	720.0	2,888.2	54,865.2
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	2,735,471	10,961,517	201,326,575
17.	Gross Electrical Energy Generated (MWH)	943,700	3,788,000	70,261,100
18.	Net Electrical Energy Generated (MWH)	891,058	3,587,646	66,097,188
19.	Unit Service Factor (%)	100.0%	99.5%	75.3%
20.	Unit Availability Factor (%)	100.0%	99.5%	75.3%
21.	Unit Capacity Factor (Using MDC Net)	100.6%	100.4%	74.3%
22.	Unit Capacity Factor (Using DER Net)	98.8%	98.6%	71.4%
23.	Unit Forced Outage Rate (%)	0.0%	0.5%	5.1%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date and Duration of Each): N/A

25. If Shutdown At End of Report Period, Estimated Date of Start-up: N/A

	Forecast	Achieved
INITIAL CRITICALITY	<u>07/87</u>	<u>10/25/87</u>
INITIAL ELECTRICITY	<u>07/87</u>	<u>12/28/87</u>
COMMERCIAL OPERATION	<u>09/87</u>	<u>01/08/88</u>

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-530
UNIT NAME PVNGS-3
DATE 5/9/96
COMPLETED BY J. D. Fulton
TELEPHONE (602) 393-5277

MONTH: April 1996

DAY AVERAGE DAILY POWER LEVEL

1	1253
2	1246
3	1247
4	1247
5	1246
6	1247
7	1246
8	1245
9	1245
10	1246
11	1246
12	1245
13	1245
14	1246
15	1247
16	1243

DAY AVERAGE DAILY POWER LEVEL

17	1239
18	1241
19	1245
20	1246
21	1245
22	1246
23	1244
24	1241
25	1236
26	1234
27	1234
28	1235
29	1238
30	1239
31	

REFUELING INFORMATION

DOCKET NO. 50-530
UNIT NAME PVNGS-3
DATE 5/9/96
COMPLETED BY J. D. Fulton
TELEPHONE (602) 393-5277

1. **Scheduled date for next refueling shutdown.**

The 6th refueling outage is scheduled for 3/15/97.

2. **Scheduled date for restart following refueling.**

5/7/97.

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

None.

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

None.

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, and new operating procedures.**

None.

6. **The number of fuel assemblies.**

a) In the core. 241

b) In the spent fuel storage pool. 456

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.**

2005 (18 Month reloads and full core discharge capability).

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO.	<u>50-530</u>
UNIT NAME	<u>PVNGS-3</u>
DATE	<u>5/9/96</u>
COMPLETED BY	<u>J. D. Fulton</u>
TELEPHONE	<u>(602) 393-5277</u>

April 1996

04/01	0000	Unit began the month in Mode 1 at 100% RX power.
04/30	2359	Unit ended the month in Mode 1 at 100% RX power.

SHUTDOWNS AND POWER REDUCTIONS
April 1996

DOCKET NO 50-530
UNIT NAME PVNGS-3
DATE 5/9/96
COMPLETED BY J. D. Fulton
TELEPHONE (602)393-5277

No.	Date	Type ¹	Outage Duration Hours	Reason ²	Method of Shutting Down Reactor ³	LER No.	System Code ⁴	Component Code ⁵	Cause and Corrective Action to Prevent Occurrence
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No reactor shutdowns or significant power reductions occurred during the month of April 1996.

¹F-Forced
S-Scheduled

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

³Method:
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)

⁴Exhibit F - Instructions for Preparation
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Event Report (LER) File (NUREG 0161)

⁵Exhibit H-Same Source

