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Palo Verde Nuclear
Generating Station

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035-00467-GRO/JDF
March 11, 1997

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
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Washington, DC 20555

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 FEBRUARY 1997**

Enclosed are the Monthly Operating Reports for February 1997, 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) 250-3549.

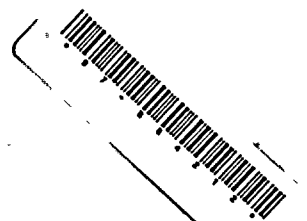
Sincerely,

GRO/JDF/clj

Enclosures: FEBRUARY 1997 Monthly Operating Reports

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

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NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-528
 UNIT NAME PVNGS-1
 DATE 03/11/97
 COMPLETED BY J. D. Fulton
 TELEPHONE (602) 250-3549

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 1
2. Reporting Period: February 1997
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): 1250
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	672	1,416	97,200
12.	Hours Reactor was Critical	672.0	1,416.0	66,741.2
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator was On-Line	672.0	1,416.0	65,568.5
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	2,602,247	5,484,691	238,098,418
17.	Gross Electrical Energy Generated (MWH)	888,400	1,871,200	82,224,900
18.	Net Electrical Energy Generated (MWH)	842,356	1,775,094	77,245,811
19.	Unit Service Factor (%)	100.0%	100.0%	67.5%
20.	Unit Availability Factor (%)	100.0%	100.0%	67.5%
21.	Unit Capacity Factor (Using MDC Net)	102.2%	102.2%	65.1%
22.	Unit Capacity Factor (Using DER Net)	100.4%	100.4%	62.6%
23.	Unit Forced Outage Rate (%)	0.0%	0.0%	11.1%

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

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.	<u>50-528</u>
UNIT NAME	<u>PVNGS-1</u>
DATE	<u>03/11/97</u>
COMPLETED BY	<u>J. D. Fulton</u>
TELEPHONE	<u>(602) 250-3549</u>

MONTH: February 1997

DAY	AVERAGE DAILY POWER LEVEL
1	1243
2	1258
3	1263
4	1260
5	1259
6	1260
7	1260
8	1261
9	1261
10	1260
11	1259
12	1259
13	1259
14	1259
15	1256
16	1256

DAY	AVERAGE DAILY POWER LEVEL
17	1241
18	1257
19	1260
20	1256
21	1257
22	1257
23	1258
24	1258
25	1258
26	1258
27	1256
28	1255
29	
30	
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REFUELING INFORMATION

DOCKET NO.	<u>50-528</u>
UNIT NAME	<u>PVNGS-1</u>
DATE	<u>03/11/97</u>
COMPLETED BY	<u>J. D. Fulton</u>
TELEPHONE	<u>(602) 250-3549</u>

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

The 7th refueling outage is scheduled for 03/14/98.

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

05/03/98.

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.**

None.

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

- a) In the core. 241
b) In the spent fuel storage pool. 548

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>50-528</u>
UNIT NAME	<u>PVNGS-1</u>
DATE	<u>03/11/97</u>
COMPLETED BY	<u>J. D. Fulton</u>
TELEPHONE	<u>(602) 250-3549</u>

February 1997

02/01	0000	Unit began the month in Mode 1 at 86% RX power. SG chemical hide-out return.
02/01	0043	Commenced RX power increase to 99%.
02/01	0313	Unit at 99% RX power. Commenced SG high rate blowdown.
02/01	0430	RX power at 100%.
02/28	2359	Unit ended the month in Mode 1 at 100% RX power.

SHUTDOWNS AND POWER REDUCTIONS
February 1997

DOCKET NO 50-528
UNIT NAME PVNGS-1
DATE 03/11/97
COMPLETED BY J. D. Fulton
TELEPHONE (602)250-3549

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 February 1997.

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	03/11/97
COMPLETED BY	J. D. Fulton
TELEPHONE	(602) 250-3549

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 2
2. Reporting Period: February 1997
3. Licensed Thermal Power (MWt): 3876
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): 1250
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	672	1,416	91,584
12.	Hours Reactor was Critical	672.0	1,416.0	67,149.7
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator was On-Line	672.0	1,416.0	65,986.9
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	2,604,205	5,487,451	242,229,932
17.	Gross Electrical Energy Generated (MWH)	896,300	1,888,400	84,071,270
18.	Net Electrical Energy Generated (MWH)	851,993	1,796,626	78,907,518
19.	Unit Service Factor (%)	100.0%	100.0%	72.1%
20.	Unit Availability Factor (%)	100.0%	100.0%	72.1%
21.	Unit Capacity Factor (Using MDC Net)	103.3%	103.4%	70.6%
22.	Unit Capacity Factor (Using DER Net)	101.5%	101.6%	67.8%
23.	Unit Forced Outage Rate (%)	0.0%	0.0%	4.7%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date and Duration of Each): 7th Refueling outage
is scheduled for 9/6/97 through 10/26/97 (50 days).

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

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

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-529
UNIT NAME PVNGS-2
DATE 03/11/97
COMPLETED BY J. D. Fulton
TELEPHONE (602) 250-3549

MONTH: February 1997

DAY AVERAGE DAILY POWER LEVEL

1	1270
2	1271
3	1268
4	1274
5	1274
6	1274
7	1274
8	1271
9	1273
10	1272
11	1271
12	1271
13	1272
14	1273
15	1270
16	1269

DAY AVERAGE DAILY POWER LEVEL

17	1269
18	1271
19	1269
20	1270
21	1272
22	1271
23	1273
24	1272
25	1272
26	1272
27	1270
28	1271
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REFUELING INFORMATION

DOCKET NO.	<u>50-529</u>
UNIT NAME	<u>PVNGS-2</u>
DATE	<u>03/11/97</u>
COMPLETED BY	<u>J. D. Fulton</u>
TELEPHONE	<u>(602) 250-3549</u>

1. Scheduled date for next refueling shutdown.

The 7th refueling outage is scheduled for 09/06/97.

2. Scheduled date for restart following refueling.

10/26/97.

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.

None.

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.	<u>50-529</u>
UNIT NAME	<u>PVNGS-2</u>
DATE	<u>03/11/97</u>
COMPLETED BY	<u>J. D. Fulton</u>
TELEPHONE	<u>(602) 250-3549</u>

February 1997

02/01	0000	Unit began the month in Mode 1 at 100% RX power.
02/28	2359	Unit ended the month in Mode 1 at 100% RX power.

SHUTDOWNS AND POWER REDUCTIONS
February 1997

DOCKET NO 50-529
UNIT NAME PVNGS-2
DATE 03/11/97
COMPLETED BY J. D. Fulton
TELEPHONE (602)250-3549

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 February 1997.

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	03/11/97
COMPLETED BY	J. D. Fulton
TELEPHONE	(602) 250-3549

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 3
2. Reporting Period: February 1997
3. Licensed Thermal Power (MWt): 3876
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): 1250
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	672	1,416	80,160
12.	Hours Reactor was Critical	504.0	1,248.0	62,704.8
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator was On-Line	504.0	1,248.0	61,925.5
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	1,684,516	4,557,339	228,293,299
17.	Gross Electrical Energy Generated (MWH)	587,200	1,568,400	79,453,500
18.	Net Electrical Energy Generated (MWH)	548,906	1,478,783	74,777,928
19.	Unit Service Factor (%)	75.0%	88.1%	77.3%
20.	Unit Availability Factor (%)	75.0%	88.1%	77.3%
21.	Unit Capacity Factor (Using MDC Net)	66.4%	84.9%	76.4%
22.	Unit Capacity Factor (Using DER Net)	65.2%	83.3%	73.5%
23.	Unit Forced Outage Rate (%)	0.0%	0.0%	4.6%

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
INITIAL ELECTRICITY
COMMERCIAL OPERATION

Forecast
07/87
07/87
09/87

Achieved
10/25/87
12/28/87
01/08/88



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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO.	50-530
UNIT NAME	PVNGS-3
DATE	03/11/97
COMPLETED BY	J. D. Fulton
TELEPHONE	(602) 250-3549

MONTH: February 1997

DAY	AVERAGE DAILY POWER LEVEL
1	1203
2	1192
3	1185
4	1175
5	1166
6	1156
7	1147
8	1137
9	1129
10	1120
11	1110
12	1100
13	1088
14	1080
15	1070
16	1044

DAY	AVERAGE DAILY POWER LEVEL
17	1033
18	1017
19	1010
20	998
21	946
22	0
23	0
24	0
25	0
26	0
27	0
28	0
29	
30	
31	

REFUELING INFORMATION

DOCKET NO.	<u>50-530</u>
UNIT NAME	<u>PVNGS-3</u>
DATE	<u>03/11/97</u>
COMPLETED BY	<u>J. D. Fulton</u>
TELEPHONE	<u>(602) 250-3549</u>

1. Scheduled date for next refueling shutdown.

The 6th refueling outage began 2/22/97.

2. Scheduled date for restart following refueling.

4/13/97.

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.

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).



THE UNITED STATES OF AMERICA

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SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO.	<u>50-530</u>
UNIT NAME	<u>PVNGS-3</u>
DATE	<u>03/11/97</u>
COMPLETED BY	<u>J. D. Fulton</u>
TELEPHONE	<u>(602) 250-3549</u>

February 1997

02/01	0000	Unit began the month in Mode 1 at 95% RX power, end of cycle coast down.
02/21	2109	Commenced RX power reduction in preparation for refueling outage.
02/22	0017	RX manually tripped for refueling outage. Entered Mode 3.
02/22	1127	Entered Mode 4.
02/23	0300	Entered Mode 5.
02/25	0309	Entered Mode 6.
02/28	2359	Unit ended the month in Mode 6, fuel off-load in progress.

SHUTDOWNS AND POWER REDUCTIONS
February 1997

DOCKET NO 50-530
UNIT NAME PVNGS-3
DATE 03/11/97
COMPLETED BY J. D. Fulton
TELEPHONE (602)250-3549

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
97-01	02/22	S	168.0	C	1	N/A	N/A	N/A	RX manually tripped to begin 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)

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of the Data Entry Sheets for Licensee
Event Report (LER) File (NUREG 0161)

⁵Exhibit H-Same Source

