NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-528
UNIT NAME PVNGS-1
DATE 05/9/97
COMPLETED BY J. D. Fulton
TELEPHONE (602) 250-3549

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 1
2. Reporting Period: April 1997
3. Licensed Thermal Power (MWt): 3876
4. Nameplate Rating (Gross MWe): 1403
5. Design Electrical Rating (Net MWe): 1265
6. Maximum Dependable Capacity (Gross MWe): 1299
7. Maximum Dependable Capacity (Net MWe): 1243
8. If Changes Occur In Capacity Ratings (Item Numbers 3 Through 7) Since Last Report, Give Reasons: The changes are a result of uprating the output unit reactors.
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	2,880	98,664
12.	Hours Reactor was Critical	720.0	2,880.0	68,205.2
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator was On-Line	720.0	2,880.0	67,032.5
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	2,790,215	11,126,932	243,740,659
17.	Gross Electrical Energy Generated (MWH)	949,700	3,791,000	84,144,700
18.	Net Electrical Energy Generated (MWH)	899,236	3,593,072	79,058,634
19.	Unit Service Factor (%)	100.0%	100.0%	67.9%
20.	Unit Availability Factor (%)	100.0%	100.0%	67.9%
21.	Unit Capacity Factor (Using MDC Net)	100.5%	100.4%	65.6%
22.	Unit Capacity Factor (Using DER Net)	98.7%	98.6%	63.1%
23.	Unit Forced Outage Rate (%)	0.0%	0.0%	10.8%

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	05/85	05/25/85
INITIAL ELECTRICITY	06/85	06/10/85
COMMERCIAL OPERATION	12/85	01/28/86

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-528
UNIT NAME PVNGS-1
DATE 05/9/97
COMPLETED BY J. D. Fulton
TELEPHONE (602) 250-3549

MONTH: April 1997

DAY	AVERAGE DAILY POWER LEVEL	DAY	AVERAGE DAILY POWER LEVEL
1	1251	17	1254
2	1254	18	1250
3	1255	19	1251
4	1257	20	1250
5	1256	21	1247
6	1253	22	1250
7	1256	23	1248
8	1255	24	1254
9	1255	25	1251
10	1257	26	1253
11	1255	27	1251
12	1256	28	1251
13	1257	29	1251
14	1256	30	1250
15	1257	31	
16	1256		

REFUELING INFORMATION

DOCKET NO. 50-528
UNIT NAME PVNGS-1
DATE 05/9/97
COMPLETED BY J. D. Fulton
TELEPHONE (602) 250-3549

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

   The 7th refueling outage is scheduled for 03/21/98.

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

   05/10/98.

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. 50-528
UNIT NAME PVNGS-1
DATE 05/9/97
COMPLETED BY J. D. Fulton
TELEPHONE (602) 250-3549

April 1997

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 1997

DOCKET NO	50-528
UNIT NAME	PVNGS-1
DATE	05/9/97
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

No reactor shutdowns or significant power reductions occurred during the month of April 1997.

[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
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 the 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 05/9/97
COMPLETED BY J. D. Fulton
TELEPHONE (602) 250-3549

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 2
2. Reporting Period: April 1997
3. Licensed Thermal Power (MWt): 3876
4. Nameplate Rating (Gross MWe): 1403
5. Design Electrical Rating (Net MWe): 1265
6. Maximum Dependable Capacity (Gross MWe): 1299
7. Maximum Dependable Capacity (Net MWe): 1243
8. If Changes Occur In Capacity Ratings (Item Numbers 3 Through 7) Since Last Report, Give Reasons: The changes are a result of uprating the output unit reactors.
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	2,880	93,048
12.	Hours Reactor was Critical	720.0	2,880.0	68,613.7
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator was On-Line	720.0	2,880.0	67,450.9
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	2,790,155	11,160,372	247,902,853
17.	Gross Electrical Energy Generated (MWH)	956,700	3,835,200	86,018,070
18.	Net Electrical Energy Generated (MWH)	909,656	3,647,424	80,754,316
19.	Unit Service Factor (%)	100.0%	100.0%	72.5%
20.	Unit Availability Factor (%)	100.0%	100.0%	72.5%
21.	Unit Capacity Factor (Using MDC Net)	101.6%	101.9%	71.1%
22.	Unit Capacity Factor (Using DER Net)	99.9%	100.1%	68.3%
23.	Unit Forced Outage Rate (%)	0.0%	0.0%	4.6%

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	03/86	04/18/86
INITIAL ELECTRICITY	06/86	05/20/86
COMMERCIAL OPERATION	12/86	09/19/86

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-529
UNIT NAME PVNGS-2
DATE 05/9/97
COMPLETED BY J. D. Fulton
TELEPHONE (602) 250-3549

MONTH: April 1997

DAY	AVERAGE DAILY POWER LEVEL	DAY	AVERAGE DAILY POWER LEVEL
1	1269	17	1267
2	1272	18	1264
3	1270	19	1268
4	1267	20	1264
5	1266	21	1262
6	1269	22	1263
7	1269	23	1262
8	1267	24	1268
9	1268	25	1267
10	1271	26	1265
11	1270	27	1265
12	1270	28	1266
13	1270	29	1263
14	1270	30	1263
15	1270	31	
16	1269		

REFUELING INFORMATION

DOCKET NO. 50-529
UNIT NAME PVNGS-2
DATE 05/9/97
COMPLETED BY J. D. Fulton
TELEPHONE (602) 250-3549

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. 50-529
UNIT NAME PVNGS-2
DATE 05/9/97
COMPLETED BY J. D. Fulton
TELEPHONE (602) 250-3549

April 1997

04/01	0000	Unit began the month in Mode 1 at 100% RX power.
04/21	1557	Declared NUE due to RCS leakage.
04/21	1846	Exited NUE.
04/30	2359	Unit ended the month in Mode 1 at 100% RX power.

SHUTDOWNS AND POWER REDUCTIONS
April 1997

DOCKET NO	50-529
UNIT NAME	PVNGS-2
DATE	05/9/97
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

No reactor shutdowns or significant power reductions occurred during the month of April 1997.

[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
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 the 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 05/9/97
COMPLETED BY J. D. Fulton
TELEPHONE (602) 250-3549

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 3
2. Reporting Period: April 1997
3. Licensed Thermal Power (MWt): 3876
4. Nameplate Rating (Gross MWe): 1403
5. Design Electrical Rating (Net MWe): 1269
6. Maximum Dependable Capacity (Gross MWe): 1302
7. Maximum Dependable Capacity (Net MWe): 1247
8. If Changes Occur In Capacity Ratings (Item Numbers 3 Through 7) Since Last Report, Give Reasons: The changes are a result of uprating the output unit reactors.
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	2,880	81,624
12.	Hours Reactor was Critical	720.0	2,014.3	63,471.1
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator was On-Line	720.0	1,980.7	62,658.2
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	2,540,995	7,112,846	230,848,806
17.	Gross Electrical Energy Generated (MWH)	863,700	2,434,100	80,319,200
18.	Net Electrical Energy Generated (MWH)	811,645	2,290,428	75,589,573
19.	Unit Service Factor (%)	100.0%	68.8%	76.8%
20.	Unit Availability Factor (%)	100.0%	68.8%	76.8%
21.	Unit Capacity Factor (Using MDC Net)	90.4%	63.8%	75.8%
22.	Unit Capacity Factor (Using DER Net)	88.8%	62.7%	72.9%
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

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

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-530
UNIT NAME PVNGS-3
DATE 05/9/97
COMPLETED BY J. D. Fulton
TELEPHONE (602) 250-3549

MONTH: April 1997

DAY	AVERAGE DAILY POWER LEVEL	DAY	AVERAGE DAILY POWER LEVEL
1	226	17	1260
2	324	18	1256
3	766	19	1258
4	815	20	1256
5	1175	21	1257
6	1238	22	1259
7	1241	23	1257
8	1242	24	1263
9	1250	25	1261
10	1258	26	1260
11	1192	27	1260
12	581	28	1260
13	1260	29	1259
14	1263	30	1260
15	1262	31	
16	1262		

REFUELING INFORMATION

DOCKET NO. 50-530
UNIT NAME PVNGS-3
DATE 05/9/97
COMPLETED BY J. D. Fulton
TELEPHONE (602) 250-3549

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

   The 7th refueling outage is scheduled for 9/19/98.

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

   11/8/98.

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. 556

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. 50-530
UNIT NAME PVNGS-3
DATE 05/9/97
COMPLETED BY J. D. Fulton
TELEPHONE (602) 250-3549

April 1997

04/01	0000	Unit began the month in Mode 1 at 18% RX power.
04/01	0230	Commences RX power increase to 70% at 2.5% per hour.
04/01	1345	Stabilized RX power at 31% to evaluate increasing trend on the vibration for Main Turbine bearings 7 and 8.
04/02	1450	Commenced RX power increase to 70%
04/03	0905	RX power at 68% for RX physics testing.
04/04	0321	Commenced RX power decrease to 63% to repair steam leak on MSIV 171.
04/04	0415	RX power at 63%
04/04	1421	Commenced RX power increase to 90%.
04/05	0537	RX power at 90% for power calibration.
04/05	0855	Commenced RX power increase to 100%
04/05	1400	RX power at 100%
04/11	1957	Commenced RX power decrease to 40% to investigate and repair suspected CW tube leak in condenser hotwell 2A.
04/11	2346	Stabilized RX power at 40%.
04/12	1520	Completed condenser repairs. Commenced RX power increase to 100%.
04/13	0053	RX power at 100%.
04/30	2359	Unit ended the month in Mode 1 at 100% RX power

SHUTDOWNS AND POWER REDUCTIONS
April 1997

DOCKET NO 50-530
UNIT NAME PVNGS-3
DATE 05/9/97
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
97-02	04/11	S	17.3	B	5	N/A	N/A	N/A	Decreased RX power to 40% to investigate and repair suspected CW tube leak in condenser hotwell 2A

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

[5]Exhibit H-Same Source