

**Enclosure 1  
September 1996  
Monthly Operating Report**

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# NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-528  
 UNIT NAME PVNGS-1  
 DATE 10/09/96  
 COMPLETED BY J. D. Fulton  
 TELEPHONE (602) 393-5277

## OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 1
2. Reporting Period: September 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	6,576	93,576
12.	Hours Reactor was Critical	480.3	5,850.8	63,813.8
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator was On-Line	480.3	5,762.9	62,666.0
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	1,682,394	21,599,162	227,135,366
17.	Gross Electrical Energy Generated (MWH)	574,100	7,382,400	78,492,900
18.	Net Electrical Energy Generated (MWH)	537,904	6,954,565	73,712,286
19.	Unit Service Factor (%)	66.7%	87.6%	67.0%
20.	Unit Availability Factor (%)	66.7%	87.6%	67.0%
21.	Unit Capacity Factor (Using MDC Net)	60.9%	86.2%	64.5%
22.	Unit Capacity Factor (Using DER Net)	59.8%	84.7%	62.0%
23.	Unit Forced Outage Rate (%)	0.0%	3.5%	11.5%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date and Duration of Each): \_\_\_\_\_

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

	Forecast	Achieved
INITIAL CRITICALITY	<u>05/85</u>	<u>05/25/85</u>
INITIAL ELECTRICITY	<u>06/85</u>	<u>06/10/85</u>
COMMERCIAL OPERATION	<u>12/85</u>	<u>01/28/86</u>

# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-528  
UNIT NAME PVNGS-1  
DATE 10/09/96  
COMPLETED BY J. D. Fulton  
TELEPHONE (602) 393-5277

MONTH: September 1996

DAY AVERAGE DAILY POWER LEVEL

1	1214
2	1217
3	1217
4	1204
5	1192
6	1177
7	1169
8	1157
9	1147
10	1136
11	1124
12	1114
13	1107
14	1106
15	1096
16	1080

DAY AVERAGE DAILY POWER LEVEL

17	1068
18	1054
19	1046
20	1016
21	4
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 10/09/96  
COMPLETED BY J. D. Fulton  
TELEPHONE (602) 393-5277

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

The 6th refueling outage began on 09/21/96.

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

11/10/96.

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. 0

b) In the spent fuel storage pool. 789

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 10/09/96  
COMPLETED BY J. D. Fulton  
TELEPHONE (602) 393-5277

September 1996

09/01	0000	Unit began the month in Mode 1 at 100% power.
09/03	2200	Commenced RX Power end-of-cycle coastdown.
09/21	0017	Manually Tripped RX to start refueling outage. Mode 3
09/21	1010	Entered Mode 4.
09/22	0144	Entered Mode 5.
09/24	1609	Entered Mode 6.
09/30	2359	Unit ended the month in Mode 6.





SHUTDOWNS AND POWER REDUCTIONS  
September 1996

DOCKET NO 50-528  
UNIT NAME PVNGS-1  
DATE 10/09/96  
COMPLETED BY J. D. Fulton  
TELEPHONE (602)393-5277

No.	Date	Type <sup>1</sup>	Outage Duration Hours	Reason <sup>2</sup>	Method of Shutting Down Reactor <sup>3</sup>	LER No.	System Code <sup>4</sup>	Component Code <sup>5</sup>	Cause and Corrective Action to Prevent Occurrence
96-04	9/21/96	S	239.7	C	1	N/A	N/A	N/A	RX manually tripped to begin the sixth refueling outage.

<sup>1</sup>F-Forced  
S-Scheduled

<sup>2</sup>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)

<sup>3</sup>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)

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

<sup>5</sup>Exhibit H-Same Source

# NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-529  
UNIT NAME PVNGS-2  
DATE 10/09/96  
COMPLETED BY J. D. Fulton  
TELEPHONE (602) 393-5277

## OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 2
2. Reporting Period: September 1996
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): 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	6,576	87,960
12.	Hours Reactor was Critical	720.0	5,390.6	63,525.7
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator was On-Line	720.0	5,340.7	62,362.9
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	2,789,909	20,161,296	228,188,909
17.	Gross Electrical Energy Generated (MWH)	951,200	6,915,500	79,244,970
18.	Net Electrical Energy Generated (MWH)	902,550	6,552,066	74,316,817
19.	Unit Service Factor (%)	100.0%	81.2%	70.9%
20.	Unit Availability Factor (%)	100.0%	81.2%	70.9%
21.	Unit Capacity Factor (Using MDC Net)	102.2%	81.2%	69.2%
22.	Unit Capacity Factor (Using DER Net)	100.4%	79.8%	66.5%
23.	Unit Forced Outage Rate (%)	0.0%	1.0%	5.0%

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 10/09/96  
COMPLETED BY J. D. Fulton  
TELEPHONE (602) 393-5277

MONTH: September 1996

DAY	AVERAGE DAILY POWER LEVEL	DAY	AVERAGE DAILY POWER LEVEL
1	1246	17	1260
2	1252	18	1260
3	1250	19	1262
4	1252	20	1263
5	1253	21	1261
6	1253	22	1260
7	1253	23	1262
8	1256	24	1259
9	1257	25	1257
10	1257	26	1255
11	1259	27	1262
12	1255	28	1266
13	1257	29	1265
14	1262	30	1263
15	1264	31	
16	1258		



REFUELING INFORMATION

DOCKET NO. 50-529  
UNIT NAME PVNGS-2  
DATE 10/09/96  
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.

11/09/97.

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).



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SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO.	50-529
UNIT NAME	PVNGS-2
DATE	10/09/96
COMPLETED BY	J. D. Fulton
TELEPHONE	(602) 393-5277

September 1996

09/01	0000	Unit began the month in Mode 1 at 100% RX power.
09/30	2359	Unit ended the month in Mode 1 at 100% RX power.



SHUTDOWNS AND POWER REDUCTIONS  
September 1996

DOCKET NO      50-529  
UNIT NAME      PVNGS-2  
DATE            10/09/96  
COMPLETED BY J. D. Fulton  
TELEPHONE      (602)393-5277

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

<sup>1</sup>F-Forced  
S-Scheduled

<sup>2</sup>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)

<sup>3</sup>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)

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

<sup>5</sup>Exhibit H-Same Source



# NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-530  
 UNIT NAME PVNGS-3  
 DATE 10/09/96  
 COMPLETED BY J. D. Fulton  
 TELEPHONE (602) 393-5277

## OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 3
2. Reporting Period: September 1996
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): 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	6,576	76,536
12.	Hours Reactor was Critical	720.0	6,555.8	59,248.8
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator was On-Line	720.0	6,492.5	58,469.5
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	2,786,968	24,815,104	215,180,162
17.	Gross Electrical Energy Generated (MWH)	948,400	8,486,400	74,959,500
18.	Net Electrical Energy Generated (MWH)	896,560	8,020,288	70,529,830
19.	Unit Service Factor (%)	100.0%	98.7%	76.4%
20.	Unit Availability Factor (%)	100.0%	98.7%	76.4%
21.	Unit Capacity Factor (Using MDC Net)	101.2%	99.2%	75.5%
22.	Unit Capacity Factor (Using DER Net)	99.4%	97.3%	72.6%
23.	Unit Forced Outage Rate (%)	0.0%	1.3%	4.9%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date and Duration of Each): 6th Refueling outage is scheduled for 2/22/97 through 4/13/97 (50 days).
25. If Shutdown At End of Report Period, Estimated Date of Start-up: N/A

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

# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-530  
UNIT NAME PVNGS-3  
DATE 10/09/96  
COMPLETED BY J. D. Fulton  
TELEPHONE (602) 393-5277

MONTH: September 1996

DAY AVERAGE DAILY POWER LEVEL

1	1240
2	1242
3	1248
4	1250
5	1249
6	1252
7	1245
8	1248
9	1253
10	1253
11	1253
12	1252
13	1251
14	1256
15	1255
16	1254

DAY AVERAGE DAILY POWER LEVEL

17	1257
18	1258
19	1238
20	1238
21	1250
22	1252
23	1257
24	1254
25	1252
26	1249
27	1257
28	1254
29	1253
30	1254
31	



## REFUELING INFORMATION

DOCKET NO.	<u>50-530</u>
UNIT NAME	<u>PVNGS-3</u>
DATE	<u>10/09/96</u>
COMPLETED BY	<u>J. D. Fulton</u>
TELEPHONE	<u>(602) 393-5277</u>

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

The 6th refueling outage is scheduled for 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?**

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>10/09/96</u>
COMPLETED BY	<u>J. D. Fulton</u>
TELEPHONE	<u>(602) 393-5277</u>

September 1996

09/01	0000	Unit began the month in Mode 1 at 100% RX power.
09/30	2359	Unit ended the month in Mode 1 at 100% RX power.



SHUTDOWNS AND POWER REDUCTIONS  
September 1996

DOCKET NO 50-530  
UNIT NAME PVNGS-3  
DATE 10/09/96  
COMPLETED BY J. D. Fulton  
TELEPHONE (602)393-5277

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

<sup>1</sup>F-Forced  
S-Scheduled

<sup>2</sup>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)

<sup>3</sup>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)

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

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