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

RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: Monthly operating repts for Jan 1995 for Palo Verde Nuclear
Generating Station. W/950210 ltr.

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Standardized plant. 05000529

Standardized plant. 05000530

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

443-00110-JML/BSE
February 10, 1995

JAMES M. LEVINE
VICE PRESIDENT
NUCLEAR PRODUCTION

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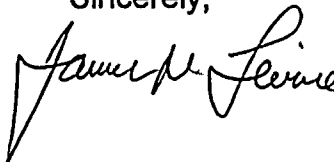
Dear Sirs:

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2, and 3
Docket Nos. STN 50-528/529/530
Monthly Operating Reports for January 1995
File: 95-024-404; 95-056-026

Enclosed are the Monthly Operating Reports for January 1995, 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 Brad S. Ecklund at (602) 393-6221.

Sincerely,



JML/BSE/plv

Enclosures: January 1995 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 02/10/95
COMPLETED BY B. S. Ecklund
TELEPHONE (602) 393-6221

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 1
2. Reporting Period: January 1995
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 (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	744	744	78,984
12.	Hours Reactor was Critical	744.0	744.0	51,376.8
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator was On-Line	744.0	744.0	50,400.6
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	2,808,750	2,808,750	181,890,768
17.	Gross Electrical Energy Generated (MWH)	970,500	970,500	63,017,000
18.	Net Electrical Energy Generated (MWH)	917,521	917,521	59,148,427
19.	Unit Service Factor (%)	100.0%	100.0%	63.8%
20.	Unit Availability Factor (%)	100.0%	100.0%	63.8%
21.	Unit Capacity Factor (Using MDC Net)	101.0%	101.0%	61.3%
22.	Unit Capacity Factor (Using DER Net)	97.1%	97.1%	59.0%
23.	Unit Forced Outage Rate (%)	0.0%	0.0%	13.4%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date and Duration of Each): Refueling outage
scheduled to begin 4/1/95 with a 70 day duration.
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
11/85

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

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-528
UNIT NAME PVNGS-1
DATE 02/10/95
COMPLETED BY B. S. Ecklund
TELEPHONE (602) 393-6221

MONTH: January 1995

DAY AVERAGE DAILY POWER LEVEL

1	1248
2	1248
3	1247
4	1246
5	1242
6	1245
7	1246
8	1246
9	1246
10	1245
11	1245
12	1245
13	1244
14	1016
15	1221
16	1242

DAY AVERAGE DAILY POWER LEVEL

17	1245
18	1249
19	1248
20	1247
21	1247
22	1247
23	1247
24	1245
25	1243
26	1244
27	1248
28	1250
29	1250
30	1250
31	1250



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REFUELING INFORMATION

DOCKET NO.	<u>50-528</u>
UNIT NAME	<u>PVNGS-1</u>
DATE	<u>02/10/95</u>
COMPLETED BY	<u>B. S. Ecklund</u>
TELEPHONE	<u>(602) 393-6221</u>

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

The 5th refueling outage is tentatively scheduled for 04/01/95.

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

06/10/95.

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.**

12/28/94

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.**

The fuel assembly will utilize Erbium as a burnable absorber (as was done for Units 2 and 3).

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

- a) In the core. 241
b) In the spent fuel storage pool. 368

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.	<u>50-528</u>
UNIT NAME	<u>PVNGS-1</u>
DATE	<u>02/10/95</u>
COMPLETED BY	<u>B. S. Ecklund</u>
TELEPHONE	<u>(602) 393-6221</u>

January 1995

01/01	0000	Unit began the month in Mode 1 with 100% power.
01/14	0103	Commence power reduction to 70% for Steam Generator Hide Out return.
01/14	0355	Completed power reduction to 70%.
01/15	0100	Commenced raising power to 100%.
01/15	0700	Rx power is at 100%.
01/19	2317	Reduced Rx power to 99% as required to perform HI Rate Steam Generator Blow Down.
01/20	0132	Restored Rx power to 100% following HI rate Blow Down completion.
01/21	2310	Commenced lowering Rx power to 98% for Control Valve Testing.
01/22	0037	Returned Rx power to 100%.
01/31	2359	Ended month at 100% power.

SHUTDOWNS AND POWER REDUCTIONS
January 1995

DOCKET NO 50-528
UNIT NAME PVNGS-1
DATE 02/10/95
COMPLETED BY B. S. Ecklund
TELEPHONE (602)393-6221

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 January, 1995.

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 02/10/95
COMPLETED BY B. S. Ecklund
TELEPHONE (602) 393-6221

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 2
2. Reporting Period: January 1995
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 (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	744	744	73,368
12.	Hours Reactor was Critical	744.0	744.0	51,395.7
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator was On-Line	744.0	744.0	50,344.9
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	2,820,387	2,820,387	183,064,294
17.	Gross Electrical Energy Generated (MWH)	976,700	976,700	63,708,170
18.	Net Electrical Energy Generated (MWH)	918,740	918,740	59,612,635
19.	Unit Service Factor (%)	100.0%	100.0%	68.6%
20.	Unit Availability Factor (%)	100.0%	100.0%	68.6%
21.	Unit Capacity Factor (Using MDC Net)	101.1%	101.1%	66.5%
22.	Unit Capacity Factor (Using DER Net)	97.2%	97.2%	64.0%
23.	Unit Forced Outage Rate (%)	0.0%	0.0%	6.0%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date and Duration of Each): Refueling outage
scheduled to begin 2/4/95 with a 60 day duration.
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>11/86</u>	<u>09/19/86</u>

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-529
UNIT NAME PVNGS-2
DATE 02/10/95
COMPLETED BY B. S. Ecklund
TELEPHONE (602) 393-6221

MONTH: January 1995

DAY AVERAGE DAILY POWER LEVEL

1	1242
2	1239
3	1241
4	1240
5	1236
6	1239
7	1240
8	1239
9	1238
10	1239
11	1238
12	1239
13	1238
14	1241
15	1240
16	1240

DAY AVERAGE DAILY POWER LEVEL

17	1241
18	1244
19	1242
20	1241
21	1242
22	1241
23	1239
24	1237
25	1234
26	1237
27	1242
28	1239
29	1237
30	1232
31	1234

REFUELING INFORMATION

DOCKET NO.	<u>50-529</u>
UNIT NAME	<u>PVNGS-2</u>
DATE	<u>02/10/95</u>
COMPLETED BY	<u>B. S. Ecklund</u>
TELEPHONE	<u>(602) 393-6221</u>

1. Scheduled date for next refueling shutdown.

The 5th refueling outage is scheduled for 02/04/95.

2. Scheduled date for restart following refueling.

04/05/95.

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

- a. Technical Specification 3.9.6 will be changed to raise the overload cutoff limit to accommodate the new fuel assembly modification.
- b. Technical Specification 3.4.2.1 will be modified to lower the PSV lift setting from 2500 psia to 2475 psia.
- c. Technical Specification change to Note 5 of Table 4.3-1 for the proposed installation of a cycle independent shape annealing matrix.

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

10/27/94.

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.

The fuel assembly will consist of a denser fuel pellet, Erbium burnable absorber and guardian grid. A primary temperature drop of 10° F is currently planned.

6. The number of fuel assemblies.

- a) In the core. 241
- b) In the spent fuel storage pool. 384

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>02/10/95</u>
COMPLETED BY	<u>B. S. Ecklund</u>
TELEPHONE	<u>(602) 393-6221</u>

January 1995

01/01	0000	Unit began the month in Mode 1 at 100% power.
01/06	2258	Started reducing Rx power to 99% as required to perform HI Rate Steam Generator Blow Down.
01/07	0032	Returned Rx power to 100%.
01/13	2227	Commenced down power to 98% for HI Rate Blow Down and Control Valve Testing.
01/14	0034	Returned Rx power to 100%.
01/28	0141	Commenced power reduction to 99% as required to perform HI Rate Steam Generator Blow Down.
01/31	2359	Ended month at 100% power.

SHUTDOWNS AND POWER REDUCTIONS
January 1995

DOCKET NO 50-529
UNIT NAME PVNGS-2
DATE 02/10/95
COMPLETED BY B. S. Ecklund
TELEPHONE (602)393-6221

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 January, 1995.

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 02/10/95
 COMPLETED BY B. S. Ecklund
 TELEPHONE (802) 393-6221

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 3
2. Reporting Period: January 1995
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 (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	744	744	61,944
12.	Hours Reactor was Critical	744.0	744.0	45,758.0
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator was On-Line	744.0	744.0	45,091.5
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	2,805,969	2,805,969	164,582,902
17.	Gross Electrical Energy Generated (MWH)	980,000	980,000	57,511,700
18.	Net Electrical Energy Generated (MWH)	924,654	924,654	54,047,361
19.	Unit Service Factor (%)	100.0%	100.0%	72.8%
20.	Unit Availability Factor (%)	100.0%	100.0%	72.8%
21.	Unit Capacity Factor (Using MDC Net)	101.8%	101.8%	71.5%
22.	Unit Capacity Factor (Using DER Net)	97.9%	97.9%	68.7%
23.	Unit Forced Outage Rate (%)	0.0%	0.0%	6.1%

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
07/87
07/87
09/87

Achieved
10/25/87
11/28/87
01/08/88

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-530
UNIT NAME PVNGS-3
DATE 02/10/95
COMPLETED BY B. S. Ecklund
TELEPHONE (602) 393-6221

MONTH: January 1995

DAY AVERAGE DAILY POWER LEVEL

1 1259

2 1258

3 1257

4 1256

5 1254

6 1258

7 1255

8 1256

9 1256

10 1256

11 1256

12 1256

13 1256

14 1255

15 1254

16 1259

DAY AVERAGE DAILY POWER LEVEL

17 1258

18 1260

19 1259

20 1258

21 1258

22 1255

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25 1254

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27 1257

28 1088

29 1147

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31 1259

REFUELING INFORMATION

DOCKET NO. 50-530
UNIT NAME PVNGS-3
DATE 02/10/95
COMPLETED BY B. S. Ecklund
TELEPHONE (602) 393-6221

1. Scheduled date for next refueling shutdown.
10/14/95 5th refueling.
2. Scheduled date for restart following refueling.
12/23/95.
3. Will refueling or resumption of 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.
June 1995, if required.
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. 380
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	02/10/95
COMPLETED BY	B. S. Ecklund
TELEPHONE	(602) 393-6221

January 1995

01/01	0000	Began the month with unit in Mode 1 at 100% power.
0101	0015	Commenced a 1% power decrease as required to perform HI Rate Steam Generator Blow Down.
01/01	0302	Returned Rx power to 100%.
01/07	2045	Commenced lowering Rx power to 99% as required to perform HI Rate Steam Generator Blow Down.
01/07	2216	Returned Rx power to 100%.
01/15	0048	Reduced power to 99% as required to perform HI Rate Steam Generator Blow Down.
01/15	0220	Returned Rx power to 100%.
01/22	0149	Commenced reducing Rx power to 99% as required to perform HI Rate Steam Generator Blow Down.
01/22	0352	Restored Rx power to 100%.
01/26	0022	Commenced reducing power to 97.2% for Control Valve Testing.
01/26	0342	Restored Rx power to 100%.
01/28	0100	Commenced a plant down power to 86% for Chemistry Hideout testing.
01/28	0224	Completed down power, Unit is now at 86%.
01/29	1430	Commenced power increase to 100% at 5% per hour.
01/29	1700	Unit restored to 100% power.
01/31	2359	Ended month at 100% power.

SHUTDOWNS AND POWER REDUCTIONS
January 1995

DOCKET NO 50-530
UNIT NAME PVNGS-3
DATE 02/10/95
COMPLETED BY B. S. Ecklund
TELEPHONE (602)393-6221

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 January, 1995.

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:
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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

