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SUBJECT: Monthly operating repts for Jan 1990 for Palo Verde Nuclear Generating Station Units 1,2 & 3.W/900214 ltr.

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254-00757-JML/KFP
February 14, 1990

Docket Nos. STN 50-528/529/530

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Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2, and 3
Monthly Operating Reports for January 1990
File: 90-024-404/90-056-026

Attached are the Monthly Operating Reports for January 1990 prepared and submitted pursuant to Specification 6.9.1.6 of Appendix A (Technical Specifications) to the Palo Verde Nuclear Generating Station, Units 1, 2, and 3 Operating Licenses. By copy of this letter, we are also forwarding the Monthly Operating Reports to the Regional Administrator of the Region V Office.

If you have any questions, please contact Mr. K. F. Porter, at (602) 340-4187.

Very truly yours,

J. M. Levine

J. M. Levine
Vice President
Nuclear Production

JML/KFP
Attachments

cc: T. L. Chan (all w/attachments)
J. B. Martin
D. H. Coe
INPO Records Center

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NRC MONTHLY OPERATING REPORT

DOCKET NO. 50-528
UNIT NAME PVNGS-1
DATE 02/09/90
COMPLETED BY K.F. Porter
TELEPHONE (602) 340-4187

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 1
2. Reporting Period: January 1990
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 (Items Number 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

		This Month	Yr.-to-Date	Cumulative
11.	Hours in Reporting Period	744	744	35,160
12.	Number of Hours Reactor Was Critical	0.0	0.0	17,262.1
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator On-Line	0.0	0.0	16,826.9
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	0	0	60,931,221
17.	Gross Electrical Energy Generated (MWH)	0	0	21,163,100
18.	Net Electrical Energy Generated (MWH)	0	0	19,793,190
19.	Unit Service Factor	0.0%	0.0%	47.9%
20.	Unit Availability Factor	0.0%	0.0%	47.9%
21.	Unit Capacity Factor (Using MDC Net)	0.0%	0.0%	46.1%
22.	Unit Capacity Factor (Using DER Net)	0.0%	0.0%	44.3%
23.	Unit Forced Outage Rate	0.0%	0.0%	28.1 %

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: April 1, 1990

	Forecast	Achieved
INITIAL CRITICALITY	05/85	05/25/85
INITIAL ELECTRICITY	06/85	06/10/85
COMMERCIAL OPERATION	11/85	01/28/86

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-528
UNIT NAME PVNGS-1
DATE 02/09/90
COMPLETED BY K.F. Porter
TELEPHONE (602) 340-4187

MONTH: JANUARY 1990

DAY	AVERAGE DAILY POWER LEVEL	DAY	AVERAGE DAILY POWER LEVEL
1	0	17	0
2	0	18	0
3	0	19	0
4	0	20	0
5	0	21	0
6	0	22	0
7	0	23	0
8	0	24	0
9	0	25	0
10	0	26	0
11	0	27	0
12	0	28	0
13	0	29	0
14	0	30	0
15	0	31	0
16	0		

REFUELING INFORMATION

DOCKET NO. 50-528
UNIT NAME PVNGS-1
DATE 02/09/90
COMPLETED BY K.F. Porter
TELEPHONE (602) 340-4187

1. Scheduled date for next refueling shutdown.

   01/04/92, 3rd refueling.

2. Scheduled date for restart following refueling.

   04/07/92

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.

   To be determined.

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, new operating procedures.

   To be determined.

6. The number of fuel assemblies.

   a) In the core. 241
   b) In the spent fuel storage pool. 188

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.

   2004 (18 Month reloads and full core discharge capability).

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO. 50-528
UNIT NAME PVNGS-1
DATE 02/09/90
COMPLETED BY K.F. Porter
TELEPHONE (602) 340-4187

January 1990

01/01	00:00	Unit began the month in Mode 6, 2nd Refueling Outage.
01/09	02:50	Unit entered Mode 5.
01/31	24:00	Unit ended the month in Mode 5.

SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO 50-528
UNIT NAME PVNGS-1
DATE 02/09/90
COMPLETED BY K.F. Porter
TELEPHONE (602) 340-4187

No.	Date	Type[1]	Duration Hours	Reason[2]	Method of Shutting Down Reactor[3]	LER No.	System Code[4]	Component Code[5]	Cause and Corrective Action to Prevent Recurrence
89/03	04/08/89	S	744	C	4	N/A	N/A	N/A	Continuation of 2nd refueling outage.

[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 02/09/90
COMPLETED BY K.F. Porter
TELEPHONE (602) 340-4187

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 2
2. Reporting Period: January 1990
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 (Items Number 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

		This Month	Yr.-to-Date	Cumulative
11.	Hours in Reporting Period	744	744	29,544
12.	Number of Hours Reactor Was Critical	744.0	744.0	19,995.1
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator On-Line	744.0	744.0	19,491.2
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	2,806,069	2,806,069	71,434,422
17.	Gross Electrical Energy Generated (MWH)	985,700	985,700	24,955,570
18.	Net Electrical Energy Generated (MWH)	930,392	930,392	23,313,204
19.	Unit Service Factor	100.0%	100.0%	66.0%
20.	Unit Availability Factor	100.0%	100.0%	66.0%
21.	Unit Capacity Factor (Using MDC Net)	102.4%	102.4%	64.6%
22.	Unit Capacity Factor (Using DER Net)	98.5%	98.5%	62.1%
23.	Unit Forced Outage Rate	0.0%	0.0%	10.1%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date and Duration of Each): Refueling Outage - 02/24/90 - 95 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	11/86	09/19/86

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-529
UNIT NAME PVNGS-2
DATE 02/09/90
COMPLETED BY K.F. Porter
TELEPHONE (602) 340-4187

MONTH: JANUARY 1990

DAY	AVERAGE DAILY POWER LEVEL	DAY	AVERAGE DAILY POWER LEVEL
1	1251	17	1252
2	1252	18	1253
3	1252	19	1255
4	1253	20	1257
5	1253	21	1257
6	1253	22	1255
7	1255	23	1255
8	1253	24	1257
9	1250	25	1257
10	1250	26	1260
11	1251	27	1248
12	1250	28	1259
13	1247	29	1257
14	1249	30	1259
15	1249	31	1257
16	1256		

REFUELING INFORMATION

DOCKET NO. 50-529
UNIT NAME PVNGS-2
DATE 02/09/90
COMPLETED BY K.F. Porter
TELEPHONE (602) 340-4187

1. Scheduled date for next refueling shutdown.

   02/24/90, 2nd refueling.

2. Scheduled date for restart following refueling.

   06/04/90

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

   Fig. 3.1-1A, Tables 3.1-2, 3.1-3, 3.1-5, Fig. 3.2-2, Fig. 3.2-2a
   Fig. 3.1-3, Fig. 3.1-4, Tech Spec 3.2.7

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

   Issued 11/06/89

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, new operating procedures.

   To be determined

6. The number of fuel assemblies.

   a) In the core. 241
   b) In the spent fuel storage pool. 108

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.

   2004 (18 Month reloads and full core discharge capability).

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

DOCKET NO. 50-529
UNIT NAME PVNGS-2
DATE 02/09/90
COMPLETED BY K.F. Porter
TELEPHONE (602) 340-4187

January 1990

01/01	00:00	Unit began the month in Mode 1, 100% RX power.
01/31	24:00	Unit ended the month in Mode 1, 100% RX power.

SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO 50-529
UNIT NAME PVNGS-2
DATE 02/09/90
COMPLETED BY K.F. Porter
TELEPHONE (602) 340-4187

No.	Date	Type[1]	Duration Hours	Reason[2]	Method of Shutting Down Reactor[3]	LER No.	System Code[4]	Component Code[5]	Cause and Corrective Action to Prevent Recurrence

No outages or power reductions of greater than 20% occurred during the month.

[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 02/09/90
COMPLETED BY K.F. Porter
TELEPHONE (602) 340-4187

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 3
2. Reporting Period: January 1990
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 (Items Number 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

		This Month	Yr.-to-Date	Cumulative
11.	Hours in Reporting Period	744	744	18,120
12.	Number of Hours Reactor Was Critical	336.0	336.0	9,747.2
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator On-Line	257.6	257.6	9,531.6
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	467,446	467,446	34,877,837
17.	Gross Electrical Energy Generated (MWH)	148,500	148,500	12,216,300
18.	Net Electrical Energy Generated (MWH)	110,109	110,109	11,473,574
19.	Unit Service Factor	34.6%	34.6%	52.6%
20.	Unit Availability Factor	34.6%	34.6%	52.6%
21.	Unit Capacity Factor (Using MDC Net)	12.1%	12.1%	51.9%
22.	Unit Capacity Factor (Using DER Net)	11.7%	11.7%	49.9%
23.	Unit Forced Outage Rate	65.1%	65.1%	13.2%

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	11/28/87
COMMERCIAL OPERATION	09/87	01/08/88

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-530
UNIT NAME PVNGS-3
DATE 02/09/90
COMPLETED BY K.F. Porter
TELEPHONE (602) 340-4187

MONTH: JANUARY 1990

DAY	AVERAGE DAILY POWER LEVEL	DAY	AVERAGE DAILY POWER LEVEL
1	0	17	0
2	0	18	0
3	0	19	0
4	0	20	0
5	0	21	53
6	0	22	96
7	0	23	76
8	0	24	189
9	0	25	443
10	0	26	550
11	0	27	632
12	0	28	804
13	0	29	826
14	0	30	861
15	0	31	983
16	0		

REFUELING INFORMATION

DOCKET NO. 50-530
UNIT NAME PVNGS-3
DATE 02/09/90
COMPLETED BY K.F. Porter
TELEPHONE (602) 340-4187

1. Scheduled date for next refueling shutdown.

   03/10/91, 2nd refueling.

2. Scheduled date for restart following refueling.

   06/14/91

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.

   To be determined.

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, new operating procedures.

   To be determined.

6. The number of fuel assemblies.

   a) In the core. 241
   b) In the spent fuel storage pool. 104

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 02/09/90
COMPLETED BY K.F. Porter
TELEPHONE (602) 340-4187

January 1990

01/01	00:00	Unit began the month in Mode 3 in an outage to replace the "A" phase main transformer.
01/18	00:02	Unit entered Mode 2.
01/19	21:47	Unit entered Mode 1.
01/21	00:21	Synchronized the main generator to the grid.
01/21	05:02	Tripped the main generator to perform scheduled turbine overspeed testing.
01/21	11:06	Synchronized the main generator to the grid.
01/31	24:00	The unit ended the month in Mode 1, 78% RX power.

SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO 50-530
UNIT NAME PVNGS-3
DATE 02/09/90
COMPLETED BY K.F. Porter
TELEPHONE (602) 340-4187

No.	Date	Type[1]	Duration Hours	Reason[2]	Method of Shutting Down Reactor[3]	LER No.	System Code[4]	Component Code[5]	Cause and Corrective Action to Prevent Recurrence
89/04	12/30/89	F	480.3	A	1	N/A	N/A	N/A	Continuation of outage from the previous month when the generator tripped due to an internal fault in the "A" main transformer.
90/01	01/21/90	S	6.1	B	5	N/A	N/A	N/A	Outage for main turbine overspeed testing.

[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