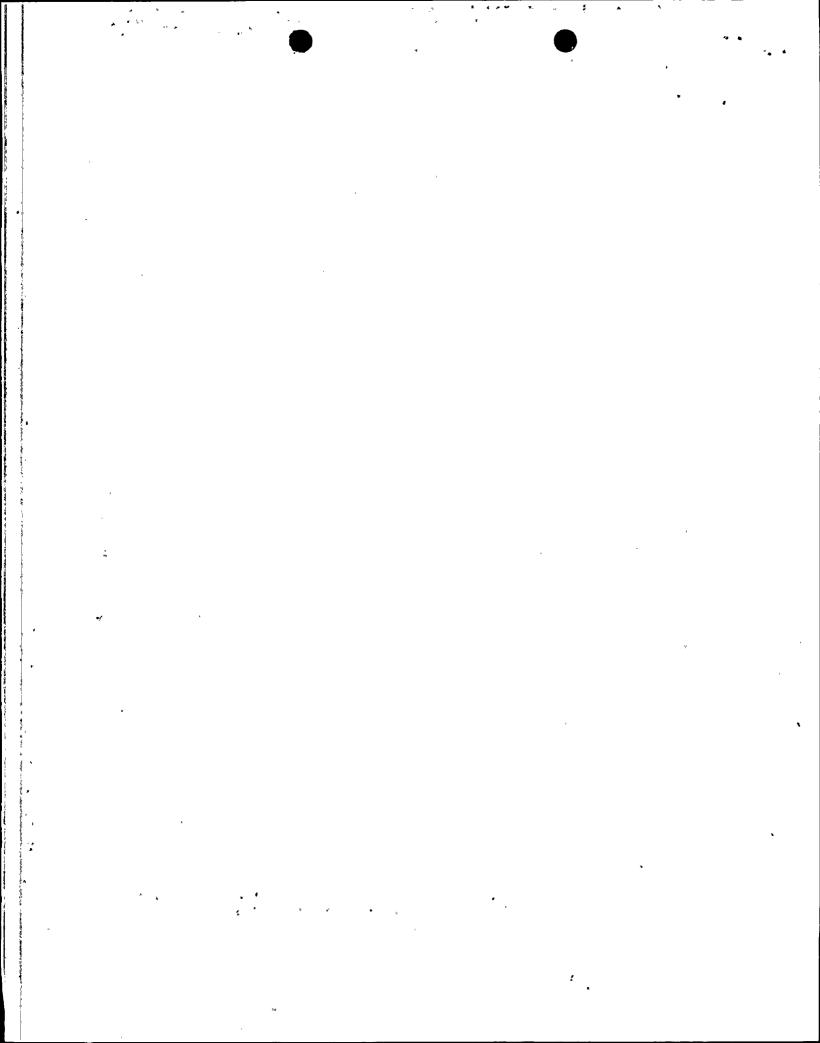
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NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

MR



Arizona Public Service Company P.O. BOX 53999 • PHOENIX, ARIZONA 85072-3999 254-00757-JML/KFP February 14, 1990 Docket Nos. STN 50-528/529/530 Document Control Desk U. S. Nuclear Regulatory Commission Mail Station P1-37 Washington, D.C. 20555 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,

Wice President

Nuclear Production

JML/KFP Attachments

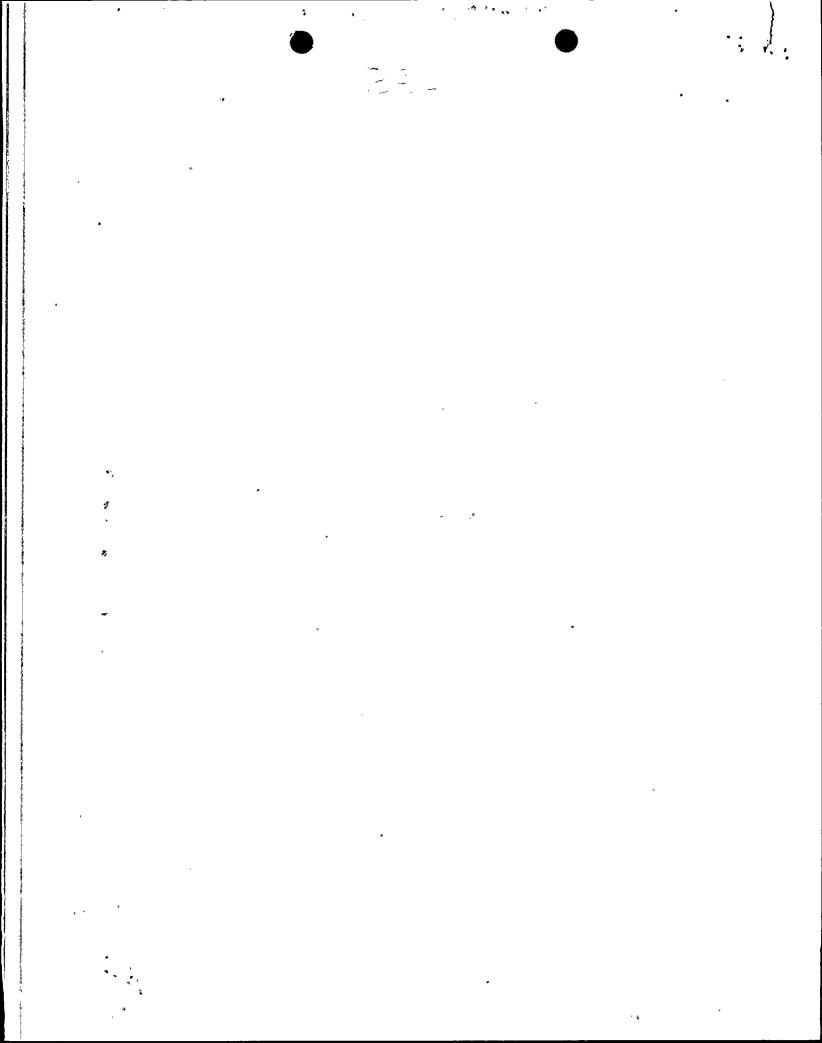
T. L. Chan

(all w/attachments)

J. B. Martin

D. H. Coe

INPO Records Center



NRC MONTHLY OPERATING REPORT

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

OPERATING_STATUS

- Unit Name: Palo Verde Nuclear Generating Station, Unit 1 1.
- Reporting Period: January 1990 2.
- Licensed Thermal Power (MWt): 3800 3.
- 4.
- Nameplate Rating (Gross MWe): 1403
 Design Electrical Rating (Net MWe): 1270 5.
- Maximum Dependable Capacity (Gross MWe): 1303 6.
- Maximum Dependable Capacity (Net MWe): 1221 7.
- If Changes Occur In Capacity Ratings (Items Number 3 Through 7) 8.

Since Last Report, Give Reasons: N/A

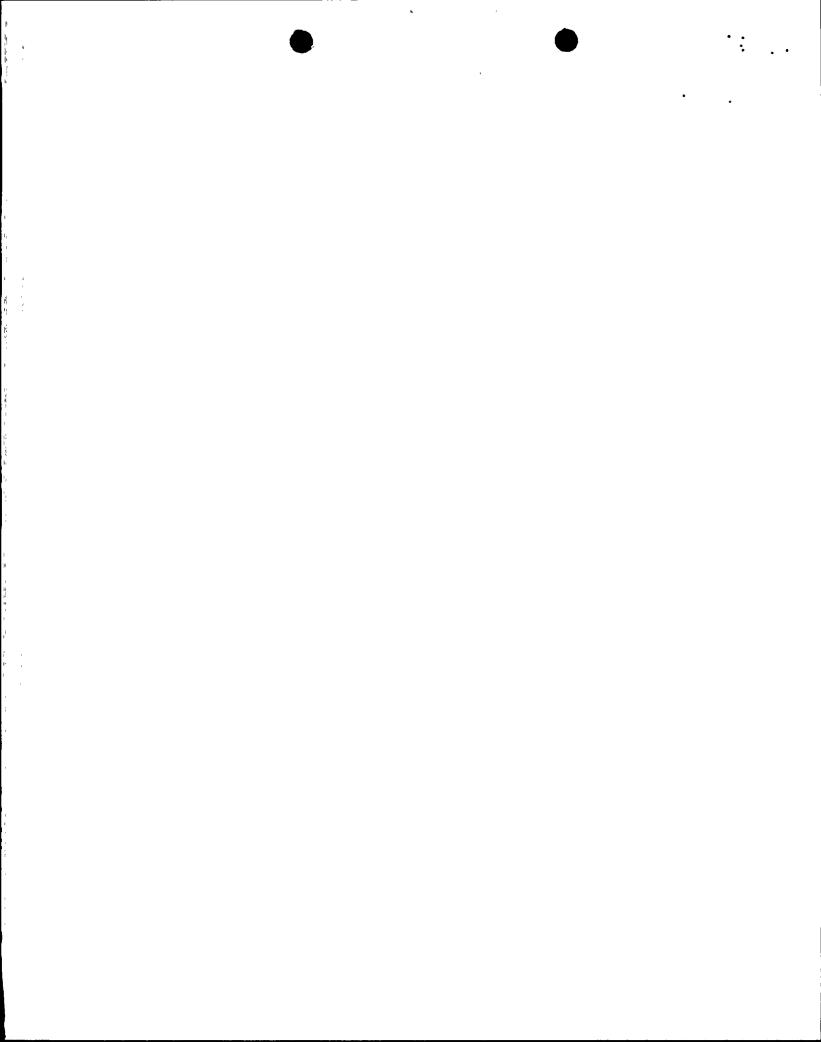
- Power Level to Which Restricted, If Any (Net MWe): None 9.
- 10. Reasons For Restrictions, If Any: N/A

		This Month	Yrto-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	O	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 %
2/.	Shutdowne Schodulad Over Next 6 Mont	he (Type Date and	Duration of Each)	•

Shutdowns Scheduled Over Next 6 Months (Type, Date and Duration of Each): 24. N/A____

25. If Shutdown At End of Report Period, Estimated Date of Start-up: April 1, 1990

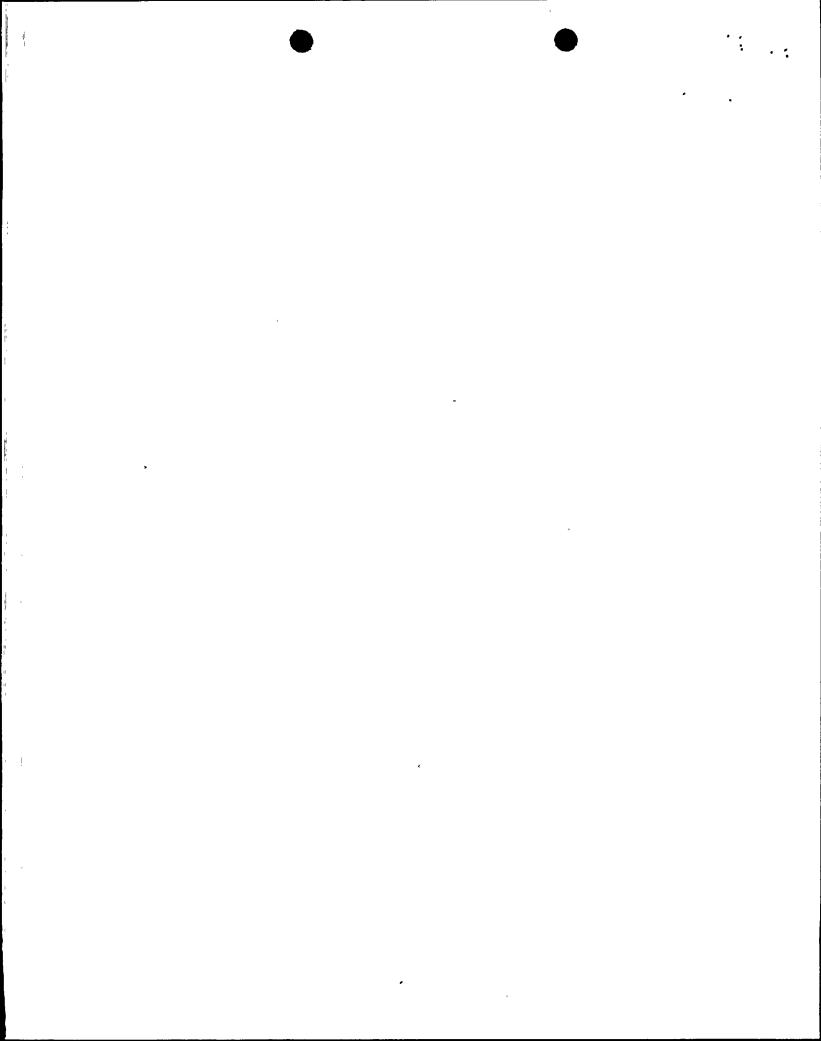
	Forecast	Achieved
INITIAL CRITICALITY	05/85	05/25/85
INITIAL ELECTRICITY	06/85	06/10/85
COMMERCIAL OPERATION	11/85	01/28/86



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		

TOOM	CH: JANUARY 1990	-	
DAY	AVERAGE DAILY POWER LEVEL	DAY	Y 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.

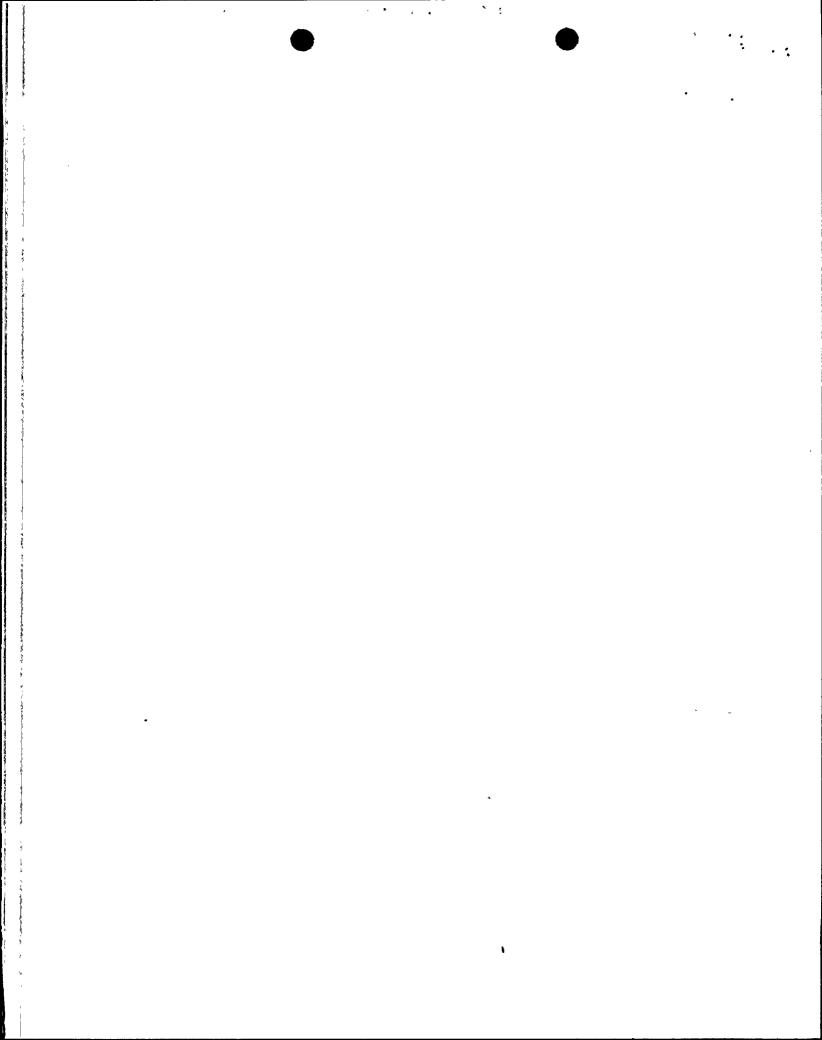
To be determined.

- 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).

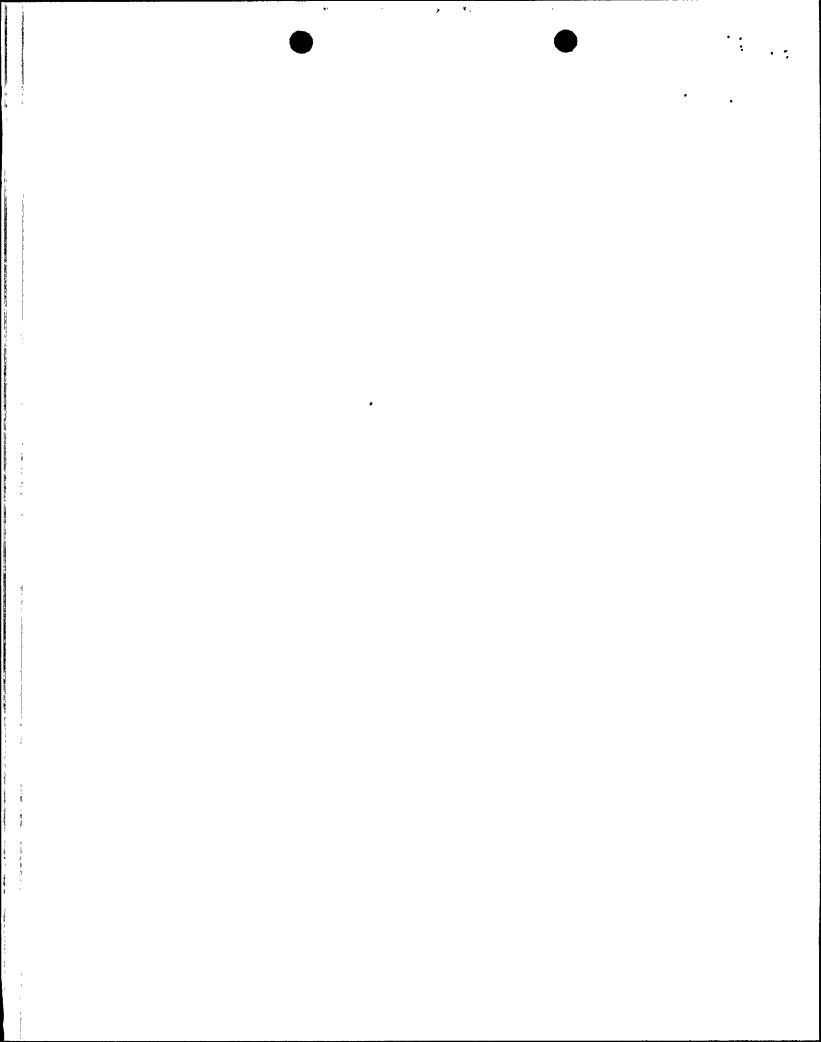


SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

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 · PVNGS-1 02/09/90		
UNIT NAME			
DATE			
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	С	4	N/A	N/A	N/A	Continuation of 2nd refueling outage.

²Reason: ¹F-Forced ³Method: ⁴Exhibit F-Instructions for Preparation of the Data S-Scheduled A-Equipment Failure(Explain) 1-Manual B-Maintenance or Test Entry Sheets for Licensee 2-Manual Scram C-Refueling 3-Automatic Scram Event Report (LER) File D-Regulatory Restriction (NUREG 0161) 4-Continuation from E-Operator Training & License Previous Month Examination 5-Reduction of 20% or F-Administrative Greater in the Past ⁵Exhibit H-Same Source G-Operational Error 24 Hours H-Other (Explain) 9-Other-(Explain)

· · •** • •

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

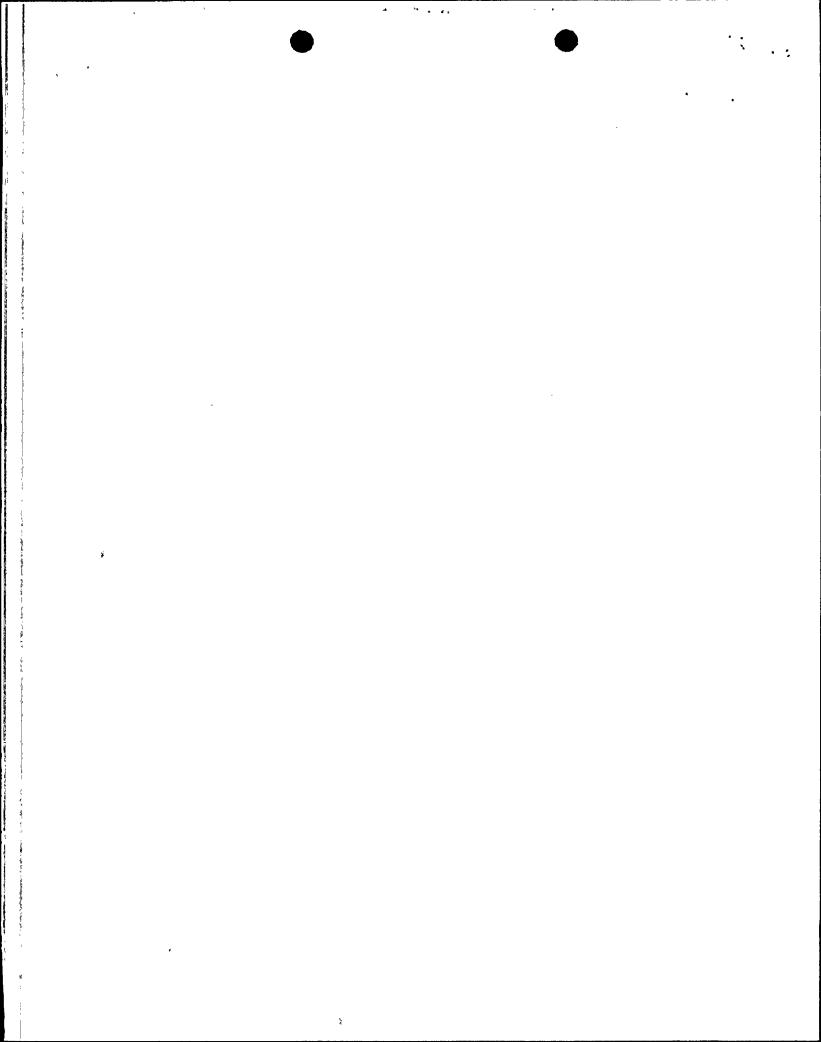
••		This Month	Yrto-Date	Cumulative
11.	Hours in Reporting Period	<u>744</u>	744	<u>29,544</u>
12.	Number of Hours Reactor			
	Was Critical	744.0	<u> 744.0</u>	<u>19,995.1</u>
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0,0
14.	Hours Generator On-Line	<u> 744.0</u>	744.0	19,491,2
15.	Unit Reserve Shutdown 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)	<u>985,700</u>	985,700	<u>24,955,570</u>
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	Churdorma Cohodulad Orox Nove 6 Ma	nthe (Tuna Data a	od Duration of Fact	·) ·

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:

INITIAL CRITICALITY INITIAL ELECTRICITY COMMERCIAL OPERATION

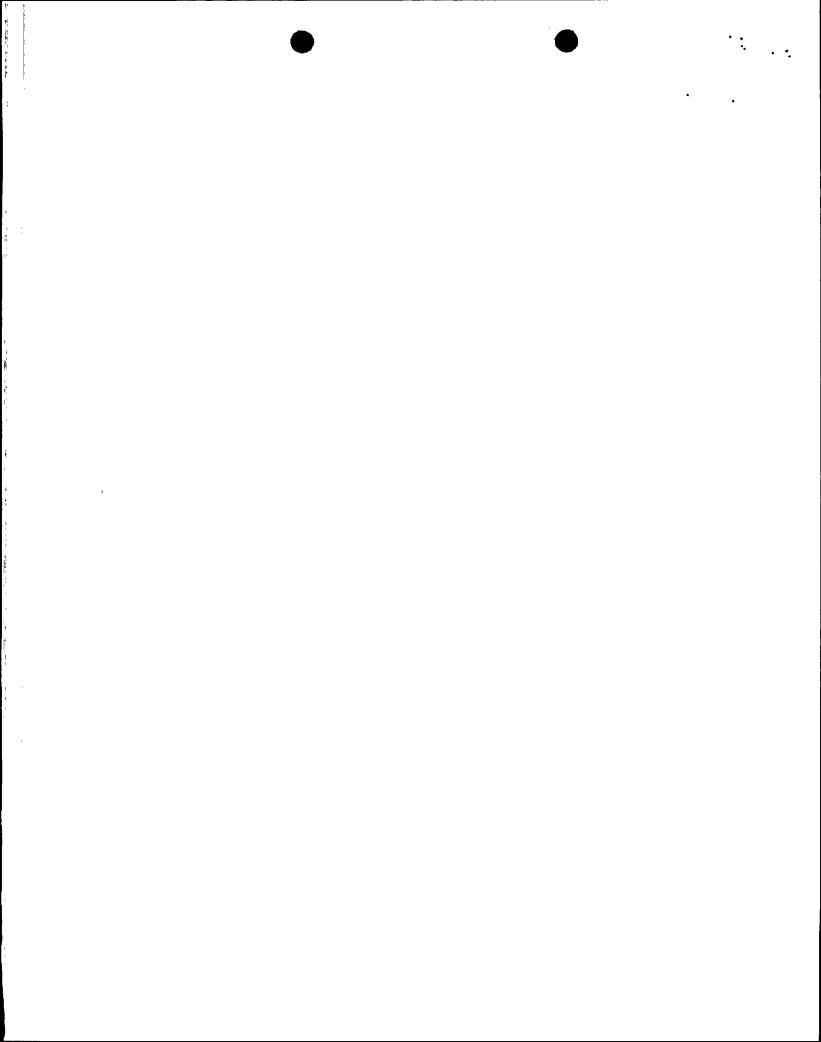
Forecast 03/86 06/86 11/86 Achieved 04/18/86 05/20/86 09/19/86



AVERAGE DAILY UNIT POWER LEVEL

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

монт	H: JANUARY 1990	
DAY	AVERAGE DAILY POWER LEVEL	DAY AVERAGE DAILY POWER LEVEL
1 .	1251	171252
2	1252	181253
3	1252	191255
4	1253	201257
5	1253	21 1257
6	1253	221255
7	1255	23 1255
8	1253	241257
9	1250	251257
10	1250	261260
11	1251	271248
12	1250	281259
13	1247	291257
14	1249	301259
15	1249	311257
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.

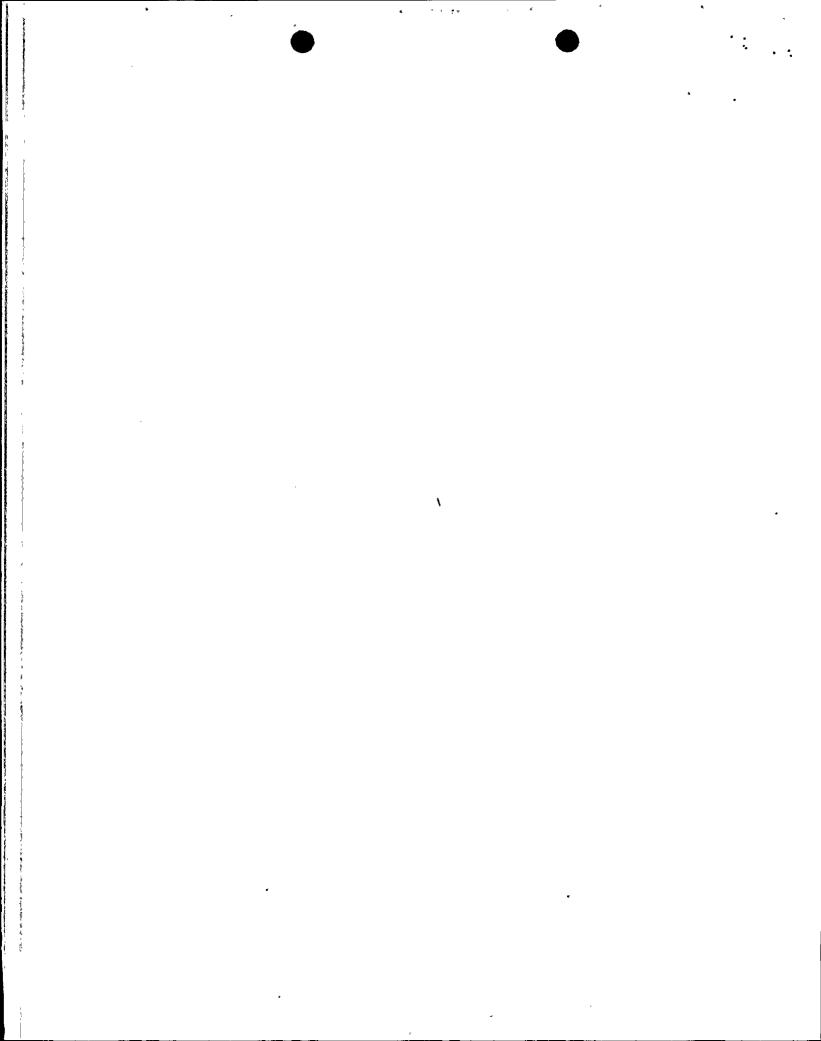
To be determined

- 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. <u>1329</u>

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

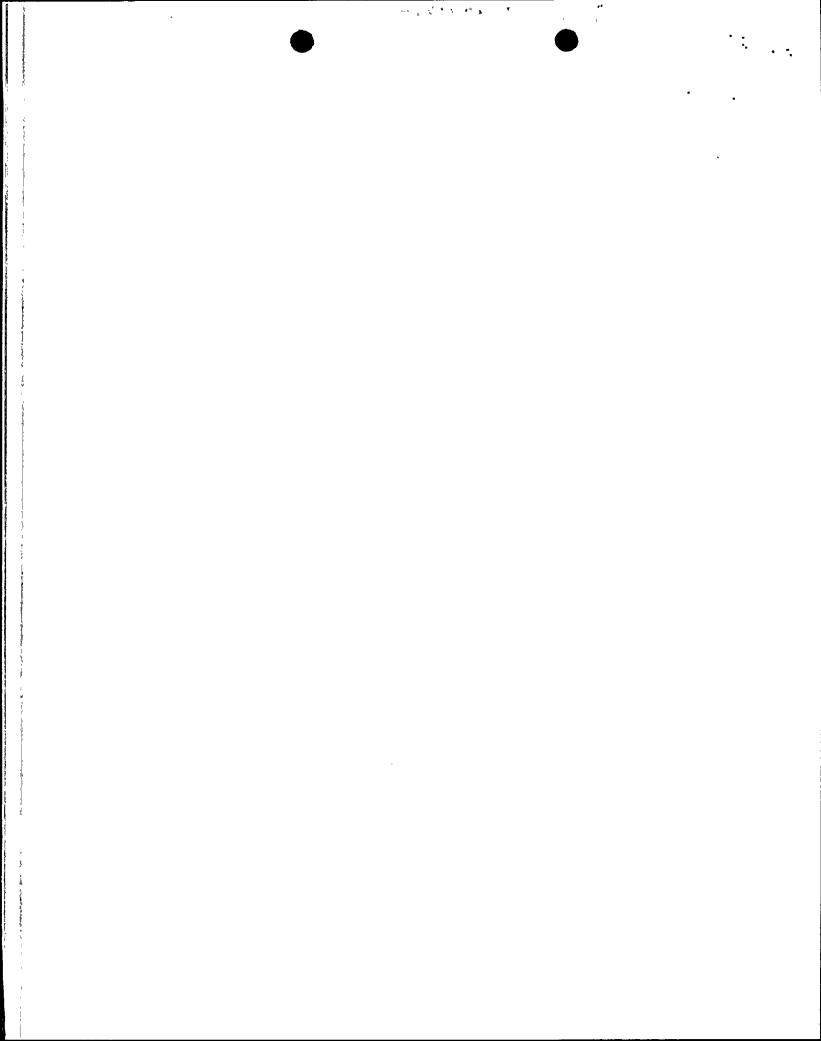
COMPLETED BY K.F. Porter

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.



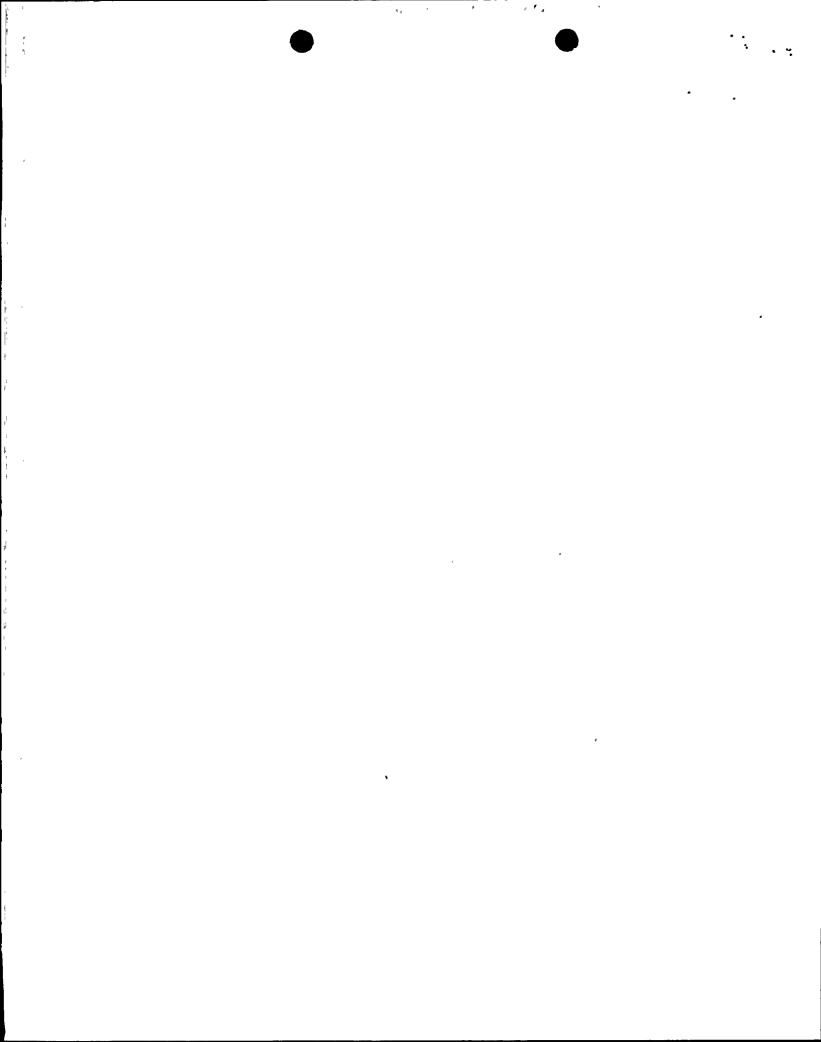
SHUTDOWNS AND POWER REDUCTIONS

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

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

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

¹ F-Forced	² Reason:	³ Method:	⁴ Exhibit F-Instructions	
S-Scheduled	A-Equipment Failure(Explain)	1-Manual	for Preparation of the Data	
	B-Maintenance or Test	2-Manual Scram	Entry Sheets for Licensee	
	C-Refueling	3-Automatic Scram	Event Report (LER) File	*
	D-Regulatory Restriction	4-Continuation from	(NUREG 0161)	
	E-Operator Training & License	Previous Month		
	Examination	5-Reduction of 20% or		
	F-Administrative	Greater in the Past	⁵ Exhibit H-Same Source	
	G-Operational Error	24 Hours		
	H-Other (Explain)	9-Other-(Explain)		



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

11.	Hours in Reporting Period	This Month 744	Yrto-Date ` 744	Cumulative
12.	Number of Hours Reactor			10,120
12.		226.0	226.0	0.7/7.0
	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	<u>257.6</u>	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	<u>148,500</u>	12,216,300
18.	Net Electrical Energy			
	Generated (MWH)	110,109	110,109	<u>11,473,574</u>
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%	<u>11.7%</u>	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

نتيبن

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

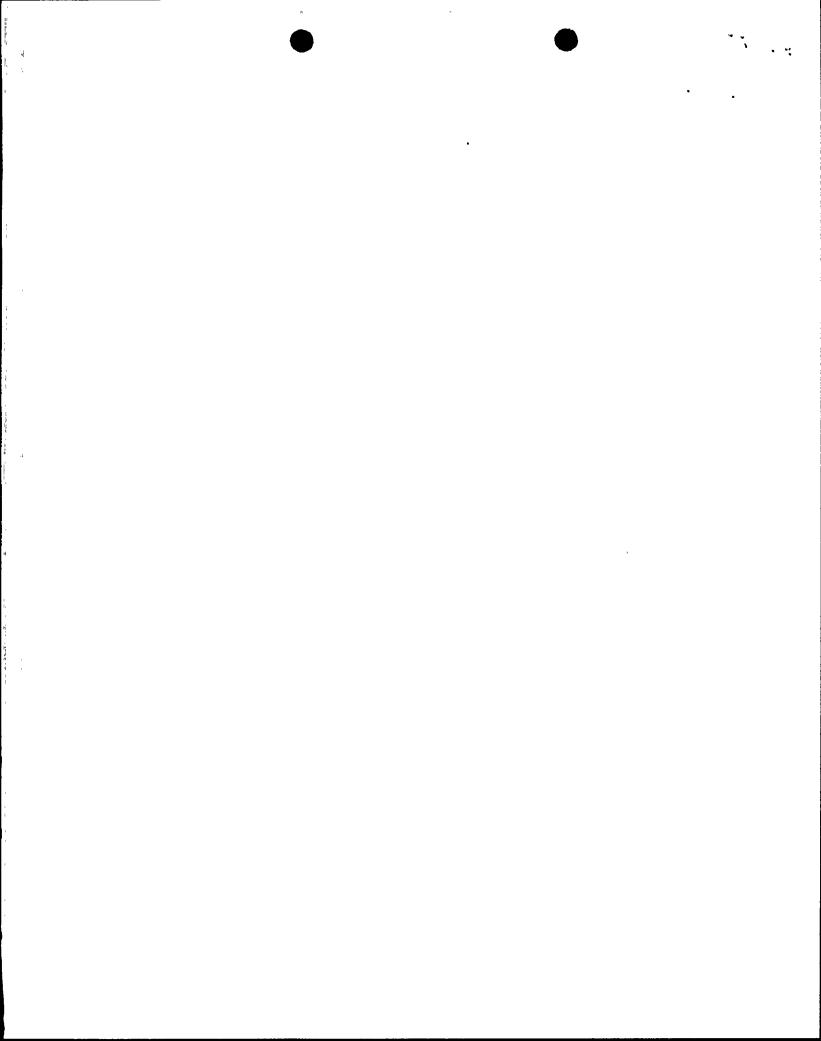
INITIAL CRITICALITY	
INITIAL ELECTRICITY	
COMMERCIAL OPERATION	

 Forecast
 Achieved

 07/87
 10/25/87

 07/87
 11/28/87

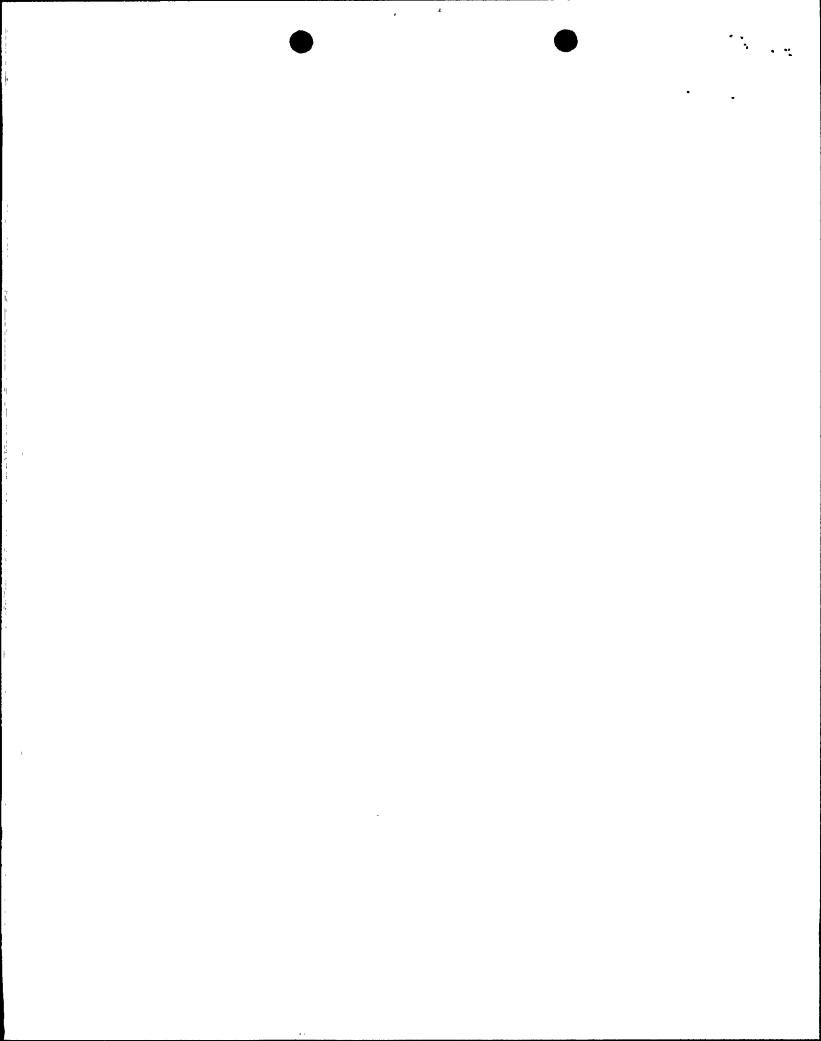
 09/87
 01/08/88



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 AVERA	GE DAILY POWER LEVEL	DAY	AVERAGE DAILY POWER LEVEL
1	0	17 _	0
2	O	18 _	0
3	0	19 _	0
4	0	20 _	0
5	0	21 _	53
6		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.

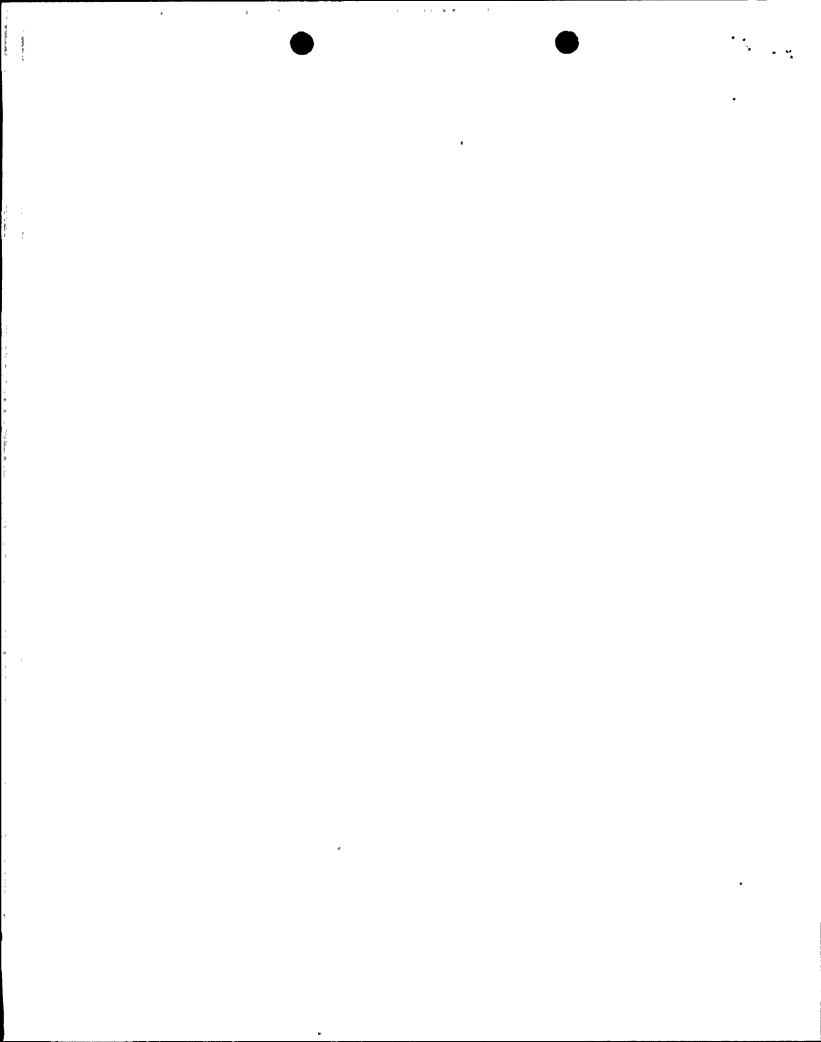
UNIT NAME

50-530

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. The number of fuel assemblies. 6. a) In the core. In the spent fuel storage pool. ____ 104 7. Licensed spent fuel storage capacity. _____1329 Intended change in spent fuel storage capacity. None Projected date of last refueling that can be discharged to spent fuel 8. storage pool assuming present capacity.

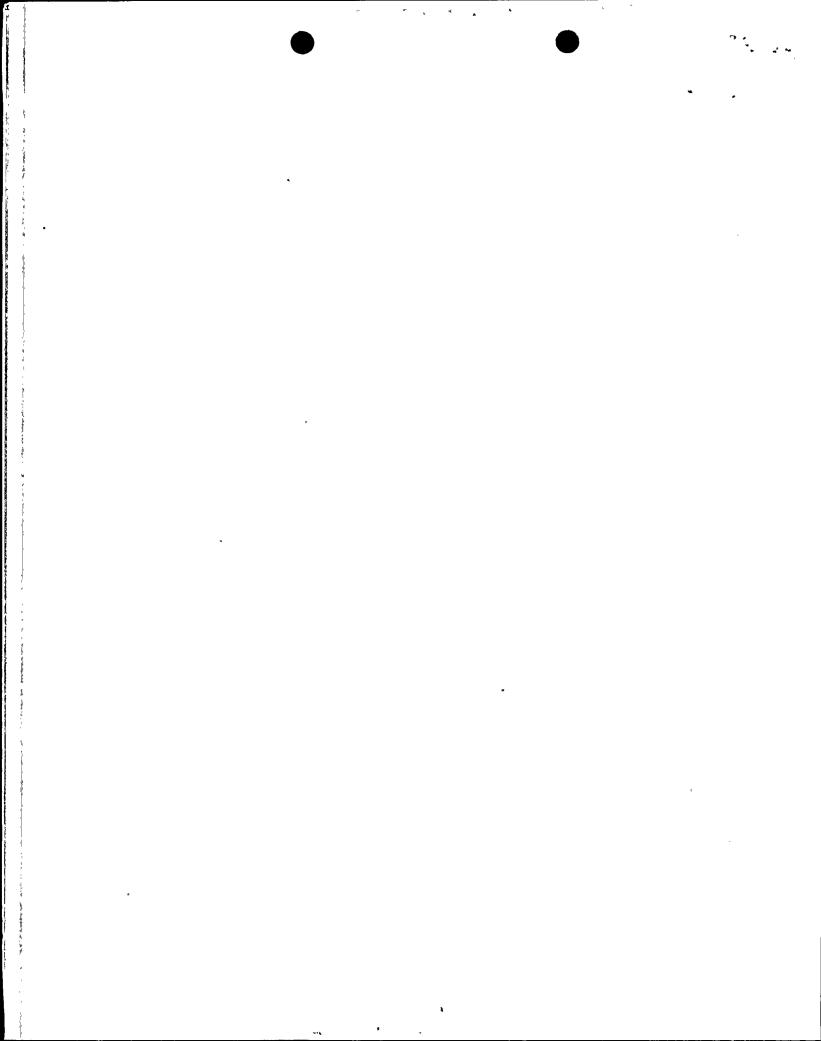
2005 (18 Month reloads and full core discharge capability).



SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

50-530		
87		

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	В	5	N/A	N/A	N/A	Outage for main turbine overspeed testing.

¹ F-Forced	² Reason:	³ Method:	⁴ Exhibit F-Instructions
S-Scheduled	A-Equipment Failure(Explain)	1-Manual	for Preparation of the Data
	B-Maintenance or Test	2-Manual Scram	Entry Sheets for Licensee
	C-Refueling	3-Automatic Scram	Event Report (LER) File
	D-Regulatory Restriction	4-Continuation from	(NUREG 0161)
	E-Operator Training & License	e Previous Month	
	Examination	5-Reduction of 20% or	
	F-Administrative	Greater in the Past	⁵ Exhibit H-Same Source
	G-Operational Error	24 Hours	
	H-Other (Explain)	9-Other-(Explain)	

ويعد ساجيج تتاجيد مدود

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