MONTHLY OPERATIONS REPORT DISTRIBUTION

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PUBLIC SERVICE COMPANY OF COLORADO

FORT ST. VRAIN NUCLEAR GENERATING STATION

MONTHLY OPERATIONS REPORT

NO. 72

DECEMBER, 1979

This report contains the highlights of the Fort St. Vrain, Unit No. 1 activities, operated under the provisions of the Nuclear Regulatory Commission Operating License, DPR-34. This report is for the month of December, 1979.

1.0 NARRATIVE SUMMARY OF OPERATING EXPERIENCE AND MAJOR SAFETY RELATED MAINTENANCE

1.1 Summary

The Fort St. Vrain maintenance outage, which started on October 29, 1979, and continued through the month of November, was completed on December 17, 1979, when the main condenser was returned to service. Normal plant valve lineups were verified and the reactor was taken critical. Clean up of the primary and secondary coolant systems had started by the end of the reporting period.

1.2 Operations

Primary coolant moisture levels increased following the flooding of "C" circulator bearing cartridge. This water ingress is attributed to work being done on the low pressure separator (CN-1158, quench line).

"B" circulator would not self-turbine following an extended shutdown period. Unsuccessful attempts were made using condensate and emergency feedwater to the pelton wheel. The circulator was finally rotated by using a combination of increased bearing water flow while applying emergency feedwater to the pelton wheel.

The reactor was taken critical on December 25, 1979, and power held at approximately 1.5% for primary and secondary coolant system clean-up. A reactor scram and Loop 2 shutdown occurred on December 30, 1979, following the operation of "C" circulator at speed. High moisture levels are attributed to the ingress which occurred on December 7, 1979. Following this shutdown, maintenance on two major Loop 2 components was started. (DN - leakage on V-2256 and oil supply flange leakage on HV-2254).

1.3 Testing

Circulator speed/wobble connectors underwent environmental testing at Wylie Labs in California.

PCRV liner corrosion Surveillance Test was completed.

PCRV rupture disc and safety valve testing was successfully completed.

"A" diesel generator semi-annual inspection was successfully completed with the surge protector damage and subsequent repairs completed as noted in Section 1.4 on the following page.

1.0 NARRATIVE SUMMARY OF OPERATING EXPERIENCE AND MAJOR SAFETY RELATED MAINTENANCE (Cont'd)

1.4 Major Equipment Problems

"A" diesel generator was damaged during checkout of the unit following its semi-annual inspection. The generator was placed on line in the independent mode, but should have been placed on line in the parallel mode. The field winding surge protector was damaged and repaired, and the unit was returned to service.

Seat repairs were accomplished on HV-2215 and HV-2217 (L-I steam water dump valves). However, leak through of HV-2217 has been suspected following the establishment of feedwater flow through L-I. HV-2217 has been isolated while evaluating repairs.

A new guide collar was installed on HV-2302 ("B" purification train iso-lation valve) to prevent binding between operator and valve stem. Manual operators were installed on HV-2301 and HV-2302 per GA-FCN-4251.

New bolts for "B" and "C" circulator steam inlet flanges were fabricated and installed. The previous bolts were rejected by PSC Quality Assurance after reviewing manufacturers certification and performing "pull" tests on bolts machined from identical material.

2.0 SINGLE RELEASES OF RADIOACTIVITY OR RADIATION EXPOSURE IN EXCESS OF 10% OF THE ALLOWABLE ANNUAL VALUE

None

3.0 INDICATION OF FAILED FUEL RESULTING FROM IRRADIATED FUEL EXAMINATIONS

None

4.0 MONTHLY OPERATING DATA REPORT

Attached

OPERATING DATA REPORT

DOCKET NO. 50-267
DATE 800103
COMPLETED BY J. W. Gahm
TELEPHONE (303) 785-2253

OPERATING STATUS

1. Unit Name: Fort St. Vrain #1
2. Reporting Period: 791201 through 791231
3. Licensed Thermal Power (MWt): 842
4. Nameplate Rating (Gross MWe): 342
5. Design Electrical Rating (Net MWe): 330
6. Maximum Dependable Capacity (Gross MWe): 342
7. Maximum Dependable Capacity (Net MWe): 330

NOTES

8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:
None

9. Power Level To Which Restricted, If Any (Net MWe): 231
10. Reasons for Restrictions, If Any: Nuclear Regulatory Commission restriction (70%) pending resolution of temperature fluctuations.

	This Month	Year to Date	Cumulative
11. Hours in Reporting Period	744	4,417*	4,417*
12. Number of Hours Reactor Was Critical	113	2,532.8	2,532.8
13. Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14. Hours Generator On-Line	0.0	982.2	982.2
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	1,399.8	477,954.8	477,954.8
17. Gross Electrical Energy Generated (MWH)	0.0	140,796	140,796
18. Net Electrical Energy Generated (MWE)	0.0	123,584	123,584
19. Unit Service Factor	0.0%	22.2%	22.2%
20. Unit Availability Factor	0.0%	22.2%	22.2%
21. Unit Capacity Factor (Using MDC Net)	0.0%	8.5%	8.5%
22. Unit Capacity Factor (Using DER Net)	0.0%	8.5%	8.5%
23. Unit Forced Outage Rate	0.0%	65.1%	65.1%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): Maintenance shutdown began October 26, 1979. It was completed on December 24, 1979.
25. If Shut Down at End of Report Period, Estimated Date of Startup: 1865 181
26. Units In Test Status (Prior to Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY		
INITIAL ELECTRICITY		
COMMERCIAL OPERATION		

*Totals corrected to refer to July 1, 1970 commercial

UNIT SHUTDOWNS AND POWER REDUCTONS

DOCKET NO. 50-267
UNIT NAME Fort St. Vrain Unit #1
DATE 800103
COMPLETED BY J. W. Gahm
TELEPHONE (303) 785-2253

REPORT MONTH December, 1979

NO.	DATE	TYPE	DURATION	REASON	METHOD OF SHUTTING DOWN REACTOR	LER #	SYSTEM CODE	COMPONENT CODE	CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
79-14	790126	S	744.0	B	2	N/A	N/A	N/A	Scheduled shutdown for plant maintenance and installation of region constraint devices.

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Summary: Scheduled shutdown for plant maintenance and installation of region constraint devices completed on December 24, 1979. The reactor was brought critical on December 25, 1979, for the rise to 70% power.

AVERAGE DAILY UNIT POWER LEVEL

Docket No. 50-267

Unit Fort St. Vrain Unit #1

Date 800103

Completed By J. W. Gahm

Telephone (303) 785-2253

Month December, 1979

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

REFUELING INFORMATION

1. Name of Facility.	Fort St. Vrain, Unit No. 1
2. Scheduled date for next refueling shutdown.	September 1, 1980
3. Scheduled date for restart following refueling.	November 1, 1980
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?	No
If answer is yes, what, in general, will these be?	
If answer is no, has the reload fuel design and core configuration been reviewed by your Plant Safety Review Committee to determine whether any unreviewed safety questions are associated with the core reload (Reference 10CFR Section 50.59)?	The Plant Operations Review Committee will review any questions associated with the core reload.
If no such review has taken place, when is it scheduled?	March 1, 1980
5. Scheduled date(s) for submitting proposed licensing action and supporting information.	----------
6. 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.	----------
7. The number of fuel assemblies (a) in the core and (b) in the spent fuel storage pool.	a) 1482 HTGR fuel elements. b) 244 spent HTGR fuel elements.
8. The present licensed spent fuel pool storage capacity and the size of any increase in licensed storage capacity that has been requested or is planned, in number of fuel assemblies.	Capacity is limited in size to about one third of core (approximately 500 HTGR elements). No change is planned.

REFUELING INFORMATION (CONTINUED)

9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity.	1986 under the Three Party Agreement (Contract AT (04-3)-633) between DOE, Public Service Company of Colorado (PSCo), and General Atomic Company.*

*The 1986 date is based on the understanding that spent fuel discharged during the term of the Three Party Agreement will be shipped to the Idaho National Engineering Laboratory for storage by DOE at the Idaho Chemical Processing Plant (ICPP). The storage capacity has evidently been sized to accomodate fuel which is expected to be discharged during the eight year period covered by the Three Party Agreement.