

PUBLIC SERVICE COMPANY OF COLORADO  
FORT ST. VRAIN NUCLEAR GENERATING STATION

MONTHLY OPERATIONS REPORT

NO. 123

April, 1984

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 April, 1984.

#### 1.0 NARRATIVE SUMMARY OF OPERATING EXPERIENCE AND MAJOR SAFETY RELATED MAINTENANCE

The reactor was shutdown for the entire month of April. The primary activities included testing of equipment and components affected during the refueling outage, and maintaining plant conditions for the core support floor work.

The core support floor tube epoxy job, made difficult due to equipment problems, was completed. From all indications, the epoxy appears to have sealed off the leaking tubes. It is too early to tell if the overall job will be successful at operating conditions.

The following tests were completed during April:

1. The functional test of the Auxiliary Cooling Method (ACM) generator. This unit was overhauled during refueling.
2. Overspeed test on 1A and 1C feedpumps. The units were overhauled during refueling.
3. The Loss of Outside Electric Power Tests. The 480V essential buses were upgraded and extensively changed during refueling.
4. The firewater pump capacity test. The pumps were overhauled during refueling.
5. Ultrafiltration unit performance test on condensate cleanup. This unit was installed during refueling.

Plant operation was also modified to allow clearances for reheat marmon flange replacement, core support floor epoxy, 480V bus testing, circulator outages, and auxiliary boiler work.

A complete plant valve lineup was performed and changes required to plant documents were noted. The process to revise the documents is in progress.

Core orifice valves were being partially stroked daily and core heating techniques were being utilized in an effort to return two orifice valves to operational status. The reactor vessel was depressurized to provide for replacement of an inoperable orifice valve with an operable one. All orifice valves were operational for equal flow positions by the end of this reporting period.

Prestressed Concrete Reactor Vessel tendon surveillance activities continued throughout the month, including lift-off testing of one bottom cross head tendon. One bottom cross head tendon was also detensioned and two wires were pulled for metallurgical and engineering evaluation. Further detensioning, testing, and inspection will continue in support of the overall analysis efforts.

Moisture removal from the Prestressed Concrete Reactor Vessel is in progress, but the present high levels have been predicted to extend the outage through May 28, 1984.

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 EXAMINATION

None.

4.0 MONTHLY OPERATING DATA REPORT

Attached.

OPERATING DATA REPORT

DOCKET NO. 50-267  
DATE May 8, 1984  
COMPLETED BY Chuck Fuller  
TELEPHONE (303)785-2224

OPERATING STATUS

NOTES

1. Unit Name: Fort St. Vrain
2. Reporting Period: 840401 through 840430
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
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): 280
10. Reasons for Restrictions, If Any: Per commitment to the NRC, long term operation above 85% power is pending completion of B-0 Startup Testing.

	This Month	Year to Date	Cumulative
11. Hours in Reporting Period	<u>719</u>	<u>2,903</u>	<u>42,384</u>
12. Number of Hours Reactor Was Critical	<u>0.0</u>	<u>468.0</u>	<u>26,295.3</u>
13. Reactor Reserve Shutdown Hours	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
14. Hours Generator On-Line	<u>0.0</u>	<u>446.6</u>	<u>18,249.8</u>
15. Unit Reserve Shutdown Hours	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
16. Gross Thermal Energy Generated (MWH)	<u>0.0</u>	<u>240,818.8</u>	<u>9,762,136.4</u>
17. Gross Electrical Energy Generated (MWH)	<u>0</u>	<u>77,412</u>	<u>3,230,862</u>
18. Net Electrical Energy Generated (MWH)	<u>-2,507</u>	<u>64,924</u>	<u>2,936,454</u>
19. Unit Service Factor	<u>0.0</u>	<u>15.4</u>	<u>43.1</u>
20. Unit Availability Factor	<u>0.0</u>	<u>15.4</u>	<u>43.1</u>
21. Unit Capacity Factor (Using MDC Net)	<u>0.0</u>	<u>6.8</u>	<u>21.0</u>
22. Unit Capacity Factor (Using DER Net)	<u>0.0</u>	<u>6.8</u>	<u>21.0</u>
23. Unit Forced Outage Rate	<u>0.0</u>	<u>1.5</u>	<u>38.9</u>
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):	<u>5-1-84 through 5-28-84, primary coolant cleanup following shutdown, 672 hours, 10-19-84 through 11-10-84, surveillance testing, 552 hours.</u>		
25. If Shut Down at End of Report Period, Estimated Date of Startup:	<u>5-15-84</u>		
26. Units In Test Status (Prior to Commercial Operation):	Forecast	Achieved	
INITIAL CRITICALITY	<u>N/A</u>	<u>N/A</u>	
INITIAL ELECTRICITY	<u>N/A</u>	<u>N/A</u>	
COMMERCIAL OPERATION	<u>N/A</u>	<u>N/A</u>	

# AVERAGE DAILY UNIT POWER LEVEL

TSP-3  
Attachment-3A  
Issue 2  
Page 1 of 1

Docket No. 50-267

Unit Fort St. Vrain

Date May 8, 1984

Completed By Chuck Fuller

Telephone (303)785-2224

Month April 1984

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

1	<u>0.0</u>
2	<u>0.0</u>
3	<u>0.0</u>
4	<u>0.0</u>
5	<u>0.0</u>
6	<u>0.0</u>
7	<u>0.0</u>
8	<u>0.0</u>
9	<u>0.0</u>
10	<u>0.0</u>
11	<u>0.0</u>
12	<u>0.0</u>
13	<u>0.0</u>
14	<u>0.0</u>
15	<u>0.0</u>
16	<u>0.0</u>

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

17	<u>0.0</u>
18	<u>0.0</u>
19	<u>0.0</u>
20	<u>0.0</u>
21	<u>0.0</u>
22	<u>0.0</u>
23	<u>0.0</u>
24	<u>0.0</u>
25	<u>0.0</u>
26	<u>0.0</u>
27	<u>0.0</u>
28	<u>0.0</u>
29	<u>0.0</u>
30	<u>0.0</u>
31	<u>N/A</u>

\*Generator on line but no net generation.

50-267

UNIT NAME Fort St. Vrain

DATE May 8, 1984

COMPLETED BY Chuck Fuller

TELEPHONE (303)785-2224

REPORT MONTH April 1984

NO.	DATE	TYPE	DURATION	REASON	METHOD OF SHUTTING DOWN REACTOR	LET #	SYSTEM CODE	COMPONENT CODE	CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
84-002840401		S	719.0	C	2	N/A	ZZZ	ZZZZZZ	Refueling, turbine overhaul, "A" helium circulator changeout, PCRV tendon surveillance, routine corrective and preventive maintenance.

# REFUELING INFORMATION

1. Name of Facility	Fort St. Vrain Unit No. 1	
2. Scheduled date for next refueling shutdown.	3rd Refueling: currently underway	4th Refueling: Feb. 1, 1986
3. Scheduled date for restart following refueling.	May 28, 1984, 2130 hours	May 1, 1986
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?	No	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 10 CFR Section 50.59)?	-----	No
If no such review has taken place, when is it scheduled?	-----	1985
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.	1482 HTGR fuel elements 251 spent HTGR fuel elements	



REFUELING INFORMATION (CONTINUED)

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.
9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity.	1992 under Agreements AT(04-3)-633 and DE-SC07-79ID01370 between Public Service Company of Colorado, and General Atomic Company, and DOE.*

- \* The 1992 estimated date is based on the understanding that spent fuel discharged during the term of the Agreements will be stored by DOE at the Idaho Chemical Processing Plant. The storage capacity has evidently been sized to accomodate eight fuel segments. It is estimated that the eighth fuel segment will be discharged in 1992.





# Public Service Company of Colorado

16805 Road 19 1/2, Platteville, Colorado 80651-9298

May 11, 1984  
Fort St. Vrain  
Unit No. 1  
P-84141

Office of Inspection and Enforcement  
ATTN: Document Control Desk  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Reference: Facility Operating License  
No. DPR-34

Docket No. 50-267

Dear Sir:

Enclosed please find our Monthly Operations Report for the month of April, 1984.

Very truly yours,

*Don Warembourg*

Don Warembourg  
Manager, Nuclear Production

DW/djm

Enclosure

cc: Mr. John T. Collins

IE2A  
1/1