

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

MONTHLY OPERATIONS REPORT

NO. 120

January, 1984

FOR 4 288 22 0218

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PDR ADOCK 05000267  
R PDR

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 January, 1984.

1.0 NARRATIVE SUMMARY OF OPERATING EXPERIENCE AND MAJOR SAFETY RELATED MAINTENANCE

The month of January was highlighted by pre-shutdown activities, shutdown, and plant reconfiguration for shutdown activities.

The plant operated near 70% power for the first two weeks, except for six hours when the turbine was tripped due to amplidyne problems. The reactor power was reduced to 50%, due to leakage problems on "1A" circulator inlet piping.

On January 17, the power was reduced to 30% to allow going to the "low power" position. Pre-shutdown surveillances were then completed, and on January 19th, the turbine generator was manually tripped. Core Support Floor testing was then performed while decreasing power. The reactor was manually scrammed on January 20, 1984, but decay heat removal requirements delayed complete core depressurization until January 26, 1984.

Prior to refueling, the helium purification inlet valves and the "B" train cooler were removed, and the electrical bus work was started. Essential Bus 1 has been removed from service, and is being upgraded at this time. Shutdown work included the deaerator and condenser inspection, instrument calibrations, loop 1 valve work, 1A circulator piping removal, moisture monitor work, and removal of the low pressure rotor on the turbine generator.

All work is progressing, but asbestos insulation removal delays have slowed progress. Refueling is delayed due to electrical cable conductor problems in the Fuel Handling Machine cable network.

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 February 6, 1984

COMPLETED BY Chuck Fuller

TELEPHONE (303)785-2224

OPERATING STATUS

NOTES

1. Unit Name: Fort St. Vrain
2. Reporting Period: 840101 thru 840131
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): 231
10. Reasons for Restrictions, If Any: Restriction to 70% pending resolution of contractual matters.

	This Month	Year to Date	Cumulative
11. Hours in Reporting Period	<u>744.0</u>	<u>744.0</u>	<u>40,225.0</u>
12. Number of Hours Reactor Was Critical	<u>468.0</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>446.6</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>240,818.8</u>	<u>240,818.8</u>	<u>9,762,136.4</u>
17. Gross Electrical Energy Generated (MWE)	<u>77,412</u>	<u>77,412</u>	<u>3,230,862</u>
18. Net Electrical Energy Generated (MWH)	<u>71,302</u>	<u>71,302</u>	<u>2,942,832</u>
19. Unit Service Factor	<u>60.0</u>	<u>60.0</u>	<u>45.4</u>
20. Unit Availability Factor	<u>60.0</u>	<u>60.0</u>	<u>45.4</u>
21. Unit Capacity Factor (Using MDC Net)	<u>29.0</u>	<u>29.0</u>	<u>22.2</u>
22. Unit Capacity Factor (Using DER Net)	<u>29.0</u>	<u>29.0</u>	<u>22.2</u>
23. Unit Forced Outage Rate	<u>40.0</u>	<u>40.0</u>	<u>39.9</u>

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): Refueling 2-1-84 through 4-18-84, at 2130 hours, 1869.5 hours.

25. If Shut Down at End of Report Period, Estimated Date of Startup: 4-19-84

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 February 6, 1984

Completed By Chuck Fuller

Telephone (303)785-2224

Month January 1984

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

1	<u>180.0</u>
2	<u>180.1</u>
3	<u>180.3</u>
4	<u>178.2</u>
5	<u>176.7</u>
6	<u>176.5</u>
7	<u>176.3</u>
8	<u>176.3</u>
9	<u>177.4</u>
10	<u>102.0</u>
11	<u>176.6</u>
12	<u>177.4</u>
13	<u>176.7</u>
14	<u>176.2</u>
15	<u>176.0</u>
16	<u>176.0</u>

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

17	<u>138.5</u>
18	<u>62.3</u>
19	<u>49.9</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>0.0</u>

\*Generator on line but no net generation.

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-267

UNIT NAME Fort St. Vrain

DATE February 6, 1984

COMPLETED BY Chuck Fuller

TELEPHONE (303)785-2224

REPORT MONTH January 1984

NO.	DATE	TYPE	DURATION	REASON	METHOD OF SHUTTING DOWN REACTOR	LER #	SYSTEM CODE	COMPONENT CODE	CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
84-001	840110	F	6.9	A	4	N/A	EL	MG	Turbine generator trip caused by amplidyne failure. Reactor remained critical.
84-002	840119	S	290.5	C	2	N/A	ZZZ	ZZZZZZ	Refueling.



# 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.	April 18, 1984, 2130 hours	May 1, 1986
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?	Yes	None Expected
If answer is yes, what, in general, will these be?	Use of type H-451 graphite.	-----
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.	Submitted to NRC December 2, 1983.	-----
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. 11 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-SC07-79IDU1370 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 WCR 19 1/2, Platteville, Colorado 80651

February 13, 1984  
Fort St. Vrain  
Unit #1  
P-84048

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 January, 1984.

Very truly yours,

*Don Warembourg*  
Don Warembourg  
Manager, Nuclear Production

Enclosure

cc: Mr. John T. Collins

DWW/djm

*IE24  
1/1* *Original  
TO: Region 4*

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Mr. John T. Collins, Regional Administrator - - - - - 1 (P Letter)  
Region IV  
Nuclear Regulatory Commission  
611 Ryan Plaza Drive  
Suite 1000  
Arlington, TX 76011

Mr. Philip C. Wagner, Project Manager - - - - - 1 (P Letter)  
Region IV  
Nuclear Regulatory Commission  
611 Ryan Plaza Drive  
Suite 1000  
Arlington, TX 76011

Department Of Energy - - - - - 1 (P Letter)  
Technical Information Center  
P. O. Box 62  
Oak Ridge, Tennessee 37830

Colorado Department Of Health - - - - - 1 (P Letter)  
ATTN: Mr. Al Hazel  
4210 East 11th. Avenue  
Denver, CO 80220

Gas Cooled Reactor Associates - - - - - 1 (P Letter)  
ATTN: Mr. Merwin L. Brown, Ph.D.  
10240 Sorrento Valley Road  
Suite 300  
San Diego, CA 92121-1605

Electric Power Research Institute - - - - - 1 (P Letter)  
ATTN: Mr. Melvin E. Lapides  
3412 Hillview Avenue  
P. O. Box 10412  
Palo Alto, CA 94303

INPO Records Center - - - - - 1 (P Letter)  
Suite 1500  
1100 Circle 75 Parkway  
Atlanta, GA 30339

Mr. Mike Dolphin - - - - - 1 (P Letter)  
FSV, GA Technologies, Inc. Site Representative  
GA Technologies, Inc.  
16864 Weld County Road 19 1/2  
Platteville, CO 80651

NRC Resident Site Inspector - - - - - 1 (P Letter)