

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

MONTHLY OPERATIONS REPORT

NO. 116

September, 1983

FORM 200 2-2 0218

8310170260 831007
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 September, 1983.

1.0 NARRATIVE SUMMARY OF OPERATING EXPERIENCE AND MAJOR SAFETY RELATED MAINTENANCE

The Fort St. Vrain reactor and turbine were operated for the first time above 70% in a steady operational non-testing mode. The period was brief due to steam driven boiler feedpump problems. Numerous other problems were also noted during the month.

The initial rise from 70% to 85% power created serious temperature problems in the reactor building. One pipe cavity temperature switch had tripped (setpoint 128 degrees Fahrenheit), and two other switches were within four degrees Fahrenheit of a trip. Temporary ducting and fans had to be installed to decrease level 2 reactor building temperatures below 120 degrees Fahrenheit. The Reactor Building temperature problem is presently resolved due to cooler outside ambient air temperatures and temporary air supplies.

A Logic Chip failed during a "reactor pressure high" surveillance. This caused a loop 1 main steam depressurization valve to open, and resulted in a complex operating transient. Power was reduced to approximately 43%, and all parameters were stabilized.

The primary problem during the month of September has been vibration in 1C boiler feedpump. GA Technologies sent personnel and equipment to analyze the feedpump. Their analysis showed a flexing in the pump support. The structure was modified but no real improvement in pump performance was evident. Later, Rotating Equipment personnel came to Fort St. Vrain and determined that the pump base was not flat. The base was shimmed, but pump performance continued to deteriorate. We have decided to disassemble the feedpump in an attempt to determine the cause of the feedpump vibration problem.

The problems noted have restricted power but the plant has generally stayed at 65% power during the entire month of September.

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 October 7, 1983
COMPLETED BY C. H. Fuller
TELEPHONE (303) 785-2224

OPERATING STATUS

1. Unit Name: Fort St. Vrain
2. Reporting Period: 830901 thru 830930
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

NOTES

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>720</u>	<u>6,551</u>	<u>37,272</u>
12. Number of Hours Reactor Was Critical	<u>720.0</u>	<u>4,028.0</u>	<u>23,774.7</u>
13. Reactor Reserve Shutdown Hours	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
14. Hours Generator On-Line	<u>720.0</u>	<u>2,721.4</u>	<u>15,895.9</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>416,360.7</u>	<u>1,481,058.0</u>	<u>8,270,483.4</u>
17. Gross Electrical Energy Generated (MWH)	<u>144,116</u>	<u>459,759</u>	<u>2,786,663</u>
18. Net Electrical Energy Generated (MWH)	<u>135,550</u>	<u>405,852</u>	<u>2,528,962</u>
19. Unit Service Factor	<u>100.0</u>	<u>41.5</u>	<u>42.6</u>
20. Unit Availability Factor	<u>100.0</u>	<u>41.5</u>	<u>42.6</u>
21. Unit Capacity Factor (Using MDC Net)	<u>57.0</u>	<u>18.8</u>	<u>20.6</u>
22. Unit Capacity Factor (Using DER Net)	<u>57.0</u>	<u>18.8</u>	<u>20.6</u>
23. Unit Forced Outage Rate	<u>0.0</u>	<u>58.5</u>	<u>42.1</u>

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): Surveillance Testing, 12-13-83 thru 12-18-83, 168 hrs.; Refueling, 2-1-84 thru 4-30-84, 2159 hrs.
25. If Shut Down at End of Report Period, Estimated Date of Startup: N/A

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 October 7, 1983

Completed By C. H. Fuller

Telephone (303) 785-2224

Month September, 1983

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1	<u>178.2</u>
2	<u>192.5</u>
3	<u>207.6</u>
4	<u>206.4</u>
5	<u>205.9</u>
6	<u>212.9</u>
7	<u>225.9</u>
8	<u>232.8</u>
9	<u>210.3</u>
10	<u>176.0</u>
11	<u>176.1</u>
12	<u>205.2</u>
13	<u>173.9</u>
14	<u>185.3</u>
15	<u>179.4</u>
16	<u>179.1</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

17	<u>179.1</u>
18	<u>178.0</u>
19	<u>178.4</u>
20	<u>176.4</u>
21	<u>179.6</u>
22	<u>177.4</u>
23	<u>180.6</u>
24	<u>180.3</u>
25	<u>178.0</u>
26	<u>179.0</u>
27	<u>175.9</u>
28	<u>180.2</u>
29	<u>180.0</u>
30	<u>179.2</u>
31	<u>N/A</u>

*Generator on line but no net generation.

UNIT SHUTDOWNS AND POWER REDUCTIONS

50-267

DOCKET NO.

Fort St. Vrain

UNIT NAME

October 7, 1983

DATE

C. H. Fuller

COMPLETED BY

(303) 785-2224

TELEPHONE

REPORT MONTH September, 1983

NO.	DATE	TYPE	DURATION	REASON	METHOD OF SHUTTING DOWN REACTOR	LER #	SYSTEM CODE	COMPONENT CODE	CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
83-016	830909	F	N/A	H	4	N/A	HHD	PUMEXX	Power reduction due to excessive vibration on IC boiler feed pump. Reactor and turbine remained on-line.

REFUELING INFORMATION

1. Name of Facility	Fort St. Vrain Unit No. 1
2. Scheduled date for next refueling shutdown.	February 1, 1984
3. Scheduled date for restart following refueling.	May 1, 1984
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?	Yes
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)?	-----
If no such review has taken place, when is it scheduled?	-----
5. Scheduled date(s) for submitting proposed licensing action and supporting information.	Not scheduled at this time; to be determined.
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-SC07-79ID01370 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

October 12, 1983

Fort St. Vrain

Unit No. 1

P-83336

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 September, 1983.

Very truly yours,

Don Warembourg
Don Warembourg
Manager, Nuclear Production

DW/djm

Enclosure

cc: Mr. John T. Collins

H005
11