

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

MONTHLY OPERATIONS REPORT

NO. 129

October, 1984

FORM 288 22 0218

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PDR ADOCK 05000367
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note: orig to Region IV

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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 October, 1984.

1.0 NARRATIVE SUMMARY OF OPERATING EXPERIENCE AND MAJOR SAFETY RELATED MAINTENANCE

1.0 STATION OPERATIONS

The Nuclear Regulatory Commission inspectors were on-site this month, testing the Operations staff on Radiological Emergency Response knowledge. They were very satisfied with the results.

Helium Circulator "1C" was successfully returned to service after installing a change to the high pressure separator drain. The circulator is being driven by auxiliary boiler steam at approximately 5000 rpm to maintain primary coolant flow at acceptable levels for present conditions.

We began pressurizing the reactor to aid in cleaning up the primary coolant. This increased pressure allowed the normal usage of the helium purification system. We then received permission from the Nuclear Regulatory Commission to exceed 100 psig primary coolant pressure. The secondary covers and circulator interspaces were all returned to normal service and on Thursday, October 4, 1984, the PCRV was pressurized to approximately 140 psig. After receiving a helium shipment, the PCRV was pressurized to 150 psig, the core support floor was returned to normal, and the secondary coolant flow was terminated to allow primary coolant to heat up and facilitate moisture removal. Primary coolant flow is being maintained by a helium circulator driven by cold reheat steam from the 150 psig header. This steam then circulates through the steam generator reheaters and adds heat to the primary coolant.

The Change Notice which routes the high pressure separator drain line to the bearing water surge tank is completed on Loop 1. The Functional Tests will be completed when adequate bearing water pumps are available, and the system can be returned to service.

On October 18, 1984, "B" purification train was plugging up due to moisture. The regeneration dryer was regenerated, and 30-35 gallons of water were drained from the knockout pot.

On October 20, 1984, a valve section breaker burned up in a turbine motor control center (TMCC) and caused the loss of one of the auxiliary boilers. The boiler could not be immediately restarted, and primary coolant flow was terminated for approximately four hours due to the lack of steam. The other auxiliary boiler problem was traced to a bad igniter.

On Tuesday, October 23, 1984, primary coolant flow was shutdown to repair the bearing water surge tank makeup pump, P-2105. This outage lasted approximately four hours.

The procedure was developed for the stuck control rod drive inspection. The control rod drive has had the inspection windows and the failed cable, as well as its sister cable, removed. The rods have been resuspended using new cable that was swaged to the remaining cable, and the control rod drive has been moved to an equipment storage well. A continuing analysis of the cable failure mechanism is in progress. The cable pieces have been sent off-site for analysis.

The "1A" helium circulator tests concluded that a bearing water to interspace leak does exist in "1A" helium circulator. The system has been returned to normal and Loop 1 has been shutdown and isolated for other activities.

The control rod drives that have been removed from the reactor are in the process of being refurbished in the Hot Service Facility.

The hydraulic helium circulator removal unit has been removed and sent off-site for repair. When returned, the removal and replacement of "1A" helium circulator will start.

The regeneration section of the helium purification system has had the regeneration compressor overhauled. When problems persisted, a section of line was removed, and the laminar flow element had displaced downstream. Search for a new flow element is being conducted.

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 November 14, 1984
COMPLETED BY Frank Novachek
TELEPHONE (303) 785-2224

OPERATING STATUS

1. Unit Name: Fort St. Vrain
2. Reporting Period: 841001 through 841031
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): 280
10. Reasons for Restrictions, If Any: PSC commitment to the NRC, long term operation above 85% power is pending completion of the B-0 Startup Testing.

	This Month	Year to Date	Cumulative
11. Hours in Reporting Period	<u>745</u>	<u>7,320</u>	<u>46,801</u>
12. Number of Hours Reactor Was Critical	<u>0.0</u>	<u>1,324.1</u>	<u>27,151.4</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>660.1</u>	<u>18,463.3</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>340,407.9</u>	<u>9,861,725.3</u>
17. Gross Electrical Energy Generated (MWH)	<u>0</u>	<u>95,144</u>	<u>3,248,594</u>
18. Net Electrical Energy Generated (MWH)	<u>-2,678</u>	<u>61,692</u>	<u>2,933,222</u>
19. Unit Service Factor	<u>0.0</u>	<u>9.0</u>	<u>39.5</u>
20. Unit Availability Factor	<u>0.0</u>	<u>9.0</u>	<u>39.5</u>
21. Unit Capacity Factor (Using MDC Net)	<u>0.0</u>	<u>2.6</u>	<u>19.0</u>
22. Unit Capacity Factor (Using DER Net)	<u>0.0</u>	<u>2.6</u>	<u>19.0</u>
23. Unit Forced Outage Rate	<u>100.00</u>	<u>82.8</u>	<u>44.5</u>

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): 11/01/84 through 03/31/85, 3624 hours, Control Rod Drive Investigation.
25. If Shut Down at End of Report Period, Estimated Date of Startup: 04/01/85

26. Units In Test Status (Prior to Commercial Operation):

INITIAL CRITICALITY

INITIAL ELECTRICITY

COMMERCIAL OPERATION

Forecast

Achieved

N/A

N/A

N/A

N/A

N/A

N/A

AVERAGE DAILY UNIT POWER LEVEL

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

Docket No. 50-267Unit Fort St. VrainDate November 14, 1984Completed By Frank NovachekTelephone (303) 785-2224Month October, 1984DAY 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>0.0</u>

*Generator on line but no net generation.

50-267

UNIT NAME Fort St. VrainDATE November 14, 1984COMPLETED BY Frank NovachekTELEPHONE (303) 785-2224REPORT MONTH October, 1984

NO.	DATE	TYPE	DURATION	REASON	METHOD OF SHUTTING DOWN	REACTOR	LER #	SYSTEM CODE	COMPONENT CODE	CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
84- 006	841001	F	745.0	A	3		50-267/84-008	AA	JC	Control Rod Drive Investigation

REFUELING INFORMATION

1. Name of Facility	Fort St. Vrain Unit No. 1
2. Scheduled date for next refueling shutdown.	4th Refueling: February 1, 1986
3. Scheduled date for restart following refueling.	May 1, 1986
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 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.	a) 1482 HTGR fuel elements b) 143 spent 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 WCR 19 1/2, Platteville, Colorado 80651

November 14, 1984
Fort St. Vrain
Unit #1
P-84490

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 October, 1984.

Sincerely,

J. W. Gahm
Manager, Nuclear Production

Enclosure

cc: Mr. John T. Collins

JWG/djm

NOTE: ORIG TO REGION IV
IE24
1/1