PUBLIC SERVICE COMPANY OF COLORADO

FORT ST. VRAIN NUCLEAR GENERATING STATION

MONTHLY OPERATIONS REPORT

NO. 128

September, 1984

IE24
1/1

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, 1984.

1.0 NARRATIVE SUMMARY OF OPERATING EXPERIENCE AND MAJOR SAFETY RELATED MAINTENANCE

To satisfy a Nuclear Regulatory Commission commitment, the new Shift Turnover Procedure was implemented on September 4, 1984. This will allow time to use and review the procedure prior to the actual commitment date of October 10, 1984.

Water collected and stored from the primary coolant moisture removal process has been added to the radioactive liquid waste system for release. Increments were increased from three gallons to fifteen gallons, and possibly as high as thirty gallons. We are working closely with Radiochemistry to eliminate any chance of exceeding maximum permissible concentration (MPC) at the site boundary.

The west settling pond was pumped out to inspect for silt buildup during the month of September. The silt has not been removed.

"B" Helium Circulator tripped on loss of bearing water due to the trip of P-2101-S. The accumulator fired, and the standby pump automatically started on September 8, 1984.

"A" Helium Circulator tests indicate a bearing water to interspace leak. Tests were performed to verify the source of water. Presently, the circulator is shut down with the auxiliaries isolated. The leak has been verified as a leak into the interspace, and the circulator has to be removed for repair.

"B" purification train was out of service, and the investigation of regeneration problems was performed. Regeneration problems were traced to two improper valve-stroke lengths. The stroke lengths were adjusted, and regeneration was restarted.

The high pressure separator drain change notice has been completed on Loop 2. We flushed the system to remove any construction debris. The system has been checked and has been returned to service. The Loop 1 portion of the change has not been started.

Inspection of Region 7 Control Rod Drive (#25) continues. We performed T-242 (Visual Inspection of the Bent Absorber String) to determine radiation levels on September 9, 1984. The control rod drive was successfully moved to the Hot Service Facility on swing shift on September 11, 1984. Six absorber sections extend from the orifice valve, with several damaged, and the absorber section is badly bent. The bent absorber string suspension cable is severed in several places. The absorber string is still suspended, and attempts are being made to determine the cause of the absorber string not being fully retracted in the control rod drive and for the cable failure.

Control rod drive #11 (currently in Region 27), with the frayed cables, has had the motor installed, the back-EMF tests performed and the motor removed. The rod was reassembled for temporary insertion into the core. After the control rod drive in Region 27 was removed, the temporary rod was installed. This temporary rod does not have a shim motor or position potentiometers.

The control rod drive in Region 9 (#20) has been removed, and a refurbished rod has been installed in that region.

Control rod drive #13 was removed from the Hot Service Facility West Port and installed in Region 9. Once in the core, the control rod drive was exercised to verify operability. The secondary cover for Region 9 was then installed.

Control rod drive #26 was removed from Equipment Storage Well #6 and placed in the Hot Service Facility West Port. A back-EMF test was conducted to get initial Hot Service Facility data. The shim motor on this control rod drive will be refurbished.

The control rod drive in Region 35 was removed for maintenance. The removal was complicated by malfunctioning in and out limit switches. The control rod absorbers were finally retracted using a manual retract tool. When the refurbished control rod drive was returned to the core, the auxiliary transfer cask grapple would not disengage. The grapple had to be disassembled to disengage it. Three of four solenoids were found to be burned out. The cask grapple solenoids were replaced and the cask was returned to service.

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 October 12, 1984
COMPLETED BY Frank Novachek
TELEPHONE (303) 785-2224

OPERATING STATUS

NOTES

1. Unit Name: Fort St. Vrain
2. Reporting Period: 840901 through 840930
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 the B-0 Startup Testing

		This Month	Year to Date	Cumulative
11.	Hours in Reporting Period	720	6,575	46,056
12.	Number of Hours Reactor Was Critical	0.0	1,324.1	27,151.4
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator On-Line	0.0	660.1	18,463.3
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	0.0	340,407.9	9,861,725.3
17.	Gross Electrical Energy Generated (MWH)	0	95,144	3,248,594
18.	Net Electrical Energy Generated (MWH)	-2,420	64,370	2,935,900
19.	Unit Service Factor	0.0	10.0	40.1
20.	Unit Availability Factor	0.0	10.0	40.1
21.	Unit Capacity Factor (Using MDC Net)	0.0	3.0	19.3
22.	Unit Capacity Factor (Using DER Net)	0.0	3.0	19.3
23.	Unit Forced Outage Rate	100.0	78.7	43.2

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): 10-1-84 through 3-31-85, 4369 hours, Control Rod Drive Investigation.
25. If Shut Down at End of Report Period, Estimated Date of Startup: 4-1-85
26. Units In Test Status (Prior to Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY	N/A	N/A
INITIAL ELECTRICITY	N/A	N/A
COMMERCIAL OPERATION	N/A	N/A

AVERAGE DAILY UNIT POWER LEVEL

Docket No. 50-267

Unit Fort St. Vrain

Date October 12, 1984

Completed By Frank Novachek

Telephone (303) 785-2224

Month September, 1984

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	0.0	17	0.0
2	0.0	18	0.0
3	0.0	19	0.0
4	0.0	20	0.0
5	0.0	21	0.0
6	0.0	22	0.0
7	0.0	23	0.0
8	0.0	24	0.0
9	0.0	25	0.0
10	0.0	26	0.0
11	0.0	27	0.0
12	0.0	28	0.0
13	0.0	29	0.0
14	0.0	30	0.0
15	0.0	31	N/A
16	0.0		

*Generator on line but no net generation.

50-267
UNIT NAME Fort St. Vrain
DATE October 12, 1984
COMPLETED BY Frank Novachek
TELEPHONE (303) 785-2224

REPORT MONTH September, 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	840901	F	720.0	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) 173 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 Road 19 1/2, Platteville, Colorado 80651-9298

October 12, 1984
Fort St. Vrain
Unit No. 1
P-84421

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, 1984.

Sincerely,

J. W. Gahm
Manager, Nuclear Production

JWG/djm

Enclosure

cc: Mr. John T. Collins

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