

OPERATING DATA REPORT

DOCKET NO. 50-267

DATE 810505

COMPLETED BY J. W. Gahm

TELEPHONE (303) 785-2224

OPERATING STATUS

NOTES

1. Unit Name: Fort St. Vrain
2. Reporting Period: 810401 through 810430
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: Nuclear Regulatory Commission restriction 70% pending resolution of temperature fluctuations.

|  | This Month   | Year to Date     | Cumulative         |
|--|--|------------------|--------------------|
| 11. Hours in Reporting Period  | <u>719</u>   | <u>2,879</u>     | <u>16,080</u>      |
| 12. Number of Hours Reactor Was Critical                                       | <u>668.2</u>   | <u>2,363.7</u>   | <u>11,498.9</u>    |
| 13. Reactor Reserve Shutdown Hours   | <u>0.0</u>   | <u>0.0</u>       | <u>0.0</u>         |
| 14. Hours Generator On-Line  | <u>373.2</u>   | <u>1,845.6</u>   | <u>7,338.9</u>     |
| 15. Unit Reserve Shutdown Hours  | <u>0.0</u>   | <u>0.0</u>       | <u>0.0</u>         |
| Gross Thermal Energy Generated (MWH)   | <u>197,337.4</u>   | <u>931,677.5</u> | <u>3,639,770.3</u> |
| 17. Gross Electrical Energy Generated (MWH)                                    | <u>69,848</u>  | <u>335,739</u>   | <u>1,207,533</u>   |
| 18. Net Electrical Energy Generated (MWH)                                      | <u>63,549</u>  | <u>310,213</u>   | <u>1,109,514</u>   |
| 19. Unit Service Factor  | <u>51.9%</u>   | <u>64.1%</u>     | <u>46.9%</u>       |
| 20. Unit Availability Factor   | <u>51.9%</u>   | <u>64.1%</u>     | <u>46.9%</u>       |
| 21. Unit Capacity Factor (Using MDC Net)                                       | <u>26.8%</u>   | <u>32.7%</u>     | <u>20.9%</u>       |
| 22. Unit Capacity Factor (Using DER Net)                                       | <u>26.8%</u>   | <u>32.7%</u>     | <u>20.9%</u>       |
| 23. Unit Forced Outage Rate  | <u>48.1%</u>   | <u>35.9%</u>     | <u>37.0%</u>       |
| 24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): | <u>Refueling, starting June 1, 1981 for approximately 8 weeks.</u> |                  |                    |
| 25. If Shut Down at End of Report Period, Estimated Date of Startup:           | <u>NA</u>  |                  |                    |

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

INITIAL CRITICALITY

INITIAL ELECTRICITY

COMMERCIAL OPERATION

Forecast

Achieved

NA

NA

NA

NA

NA

NA

8105120277

## UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-267

UNIT NAME Fort St. Vrain

DATE 810505

COMPLETED BY J. W. Gahm

TELEPHONE (303) 785-2224

REPORT MONTH April, 1981

| NO.   | DATE   | TYPE | DURATION | REASON | METHOD OF<br>SHUTTING<br>DOWN<br>REACTOR | LER #         | SYSTEM<br>CODE | COMPONENT<br>CODE | CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE  |
|-------|--------|------|----------|--------|--|---------------|----------------|-------------------|--|
| 81-11 | 810401 | F    | 232.5    | A      | 2  | 80-030/03-X-1 | HB             | HTEXCH            | Unit taken off line and reactor shutdown due to excessive Loop 2 steam generator penetration interspace pressurization helium leakage. Continuation of shutdown from March, 1981 |
| 81-12 | 810413 | F    | 23.8     | A      | 3  | NA            | ED             | CKTBRK            | When "A" Reactor Building exhaust fan was started a bad connection caused the breaker to fail and resulted in a hot reheat scram.  |
| 81-13 | 810419 | F    | 23.2     | A      | 3  | NA            | IB             | INSTRU            | A faulty speed cable on 1D helium circulator caused the circulator to trip and subsequently resulted in a hot reheat scram.  |
| 81-14 | 810420 | F    | 24.3     | A      | NA                                       | NA            | IB             | INSTRU            | A faulty integrated circuit and a failed relay caused both Loop II circulators to trip. The turbine generator was taken off line to recover the loop.                            |
| 81-15 | 810425 | F    | 42.0     | B      | 3  | NA            | IB             | INSTRU            | During calibration of 1A helium circulator main drain valve a buffer-mid-buffer trip occurred which resulted in a hot reheat scram.  |

Summary: Plan to continue operation at 70% power until refueling shutdown.

# AVERAGE DAILY UNIT POWER LEVEL

Docket No. 50-267

Unit Fort St. Vrain

Date 810505

Completed By J. W. Gahm

Telephone (303) 785-2224

Month April, 1981

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>10.1</u>  |
| 11 | <u>67.6</u>  |
| 12 | <u>103.0</u> |
| 13 | <u>118.2</u> |
| 14 | <u>27.7</u>  |
| 15 | <u>197.4</u> |
| 16 | <u>220.8</u> |

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

|    |              |
|----|--------------|
| 17 | <u>242.6</u> |
| 18 | <u>250.2</u> |
| 19 | <u>7.0</u>   |
| 20 | <u>78.0</u>  |
| 21 | <u>0.0 *</u> |
| 22 | <u>170.3</u> |
| 23 | <u>215.1</u> |
| 24 | <u>255.3</u> |
| 25 | <u>11.5</u>  |
| 26 | <u>0.8</u>   |
| 27 | <u>86.1</u>  |
| 28 | <u>209.5</u> |
| 29 | <u>213.6</u> |
| 30 | <u>216.9</u> |
| 31 | <u>NA</u>    |

\*Generator on line but no net generation.

# REFUELING INFORMATION

|  |   |
|--|---|
| 1. Name of Facility.   | Fort St. Vrain, Unit No. 1  |
| 2. Scheduled date for next refueling shutdown.   | June 1, 1981  |
| 3. Scheduled date for restart following refueling.   | August 1, 1981  |
| 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 10CFR Section 50.59)? | Yes   |
| If no such review has taken place, when is it scheduled?   | -----   |
| 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.                | Peripheral fuel elements changed from thin thorium buffer to thick thorium buffer.                              |
| 7. The number of fuel assemblies (a) in the core and (b) in the spent fuel storage pool.   | a) 1482 HTGR fuel elements.<br>b) 10 spent HTGR fuel elements.  |
| 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. |

REFUELING INFORMATION (CONTINUED)

|   |  |
|---|--|
| 9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity. | 1986 under the Three Party Agreement (Contract AT (04-3)-633) between DOE, Public Service Company of Colorado (PSCo), and General Atomic Company.* |
|---|--|

\*The 1986 date is based on the understanding that spent fuel discharged during the term of the Three Party Agreement will be shipped to the Idaho National Engineering Laboratory for storage by DOE at the Idaho Chemical Processing Plant (ICPP). The storage capacity has evidently been sized to accommodate fuel which is expected to be discharged during the eight year period covered by the Three Party Agreement.