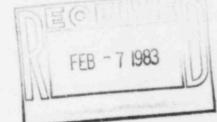


## Public Service Company of Colorado

16805 Road 19 1/2, Platteville, Colorado 80651-9298

February 3, 1983 Fort St. Vrain Unit No. 1 P-83046



Mr. John T. Collins, Regional Administrator Region IV Nuclear Regulatory Commission 611 Ryan Plaza Drive Suite 1000 Arlington, Texas 76011

Reference: Facility Operating License

No. DPR-34

Docket No. 50-267

Dear Mr. Collins:

Enclosed please find a copy of Reportable Occurrence Report No. 50-267/83-003, Final, submitted per the requirements of Technical Specification AC 7.5.2(b)2.

Also, please find enclosed one copy of the Licensee Event Report for Reportable Occurrence Report No. 50-267/83-003.

Very truly yours,

Manager, Nuclear Production

DW/cls

Enclosure

cc: Director, MIPC

### REPORTABLE OCCURRENCE DISTRIBUTION

Number of Copies
Department of Energy 1 (P Letter) San Francisco Operations Office Attn: California Patent Group 1333 Broadway Oakland, California 94612
Department of Energy 1 (P Letter) Mr. Glen A. Newby, Chief HTR Branch Division of Nuclear Power Development Mail Station B-107
Washington, D.C. 20545
Department of Energy 1 (P Letter) Attn: Project Manager P. O. Box 81608
San Diego, California 92138
Mr. John T. Collins, Regional Administrator
Arlington, Texas 76011
Mr. George Kuzmycz 1 (P Letter) Nuclear Regulatory Commission 7920 Norfolk Avenue Bethesda, Maryland 20034
Director 1 (P Letter) Office of Management Information and Program Control Nuclear Regulatory Commission Washington, D.C. 20555
INPO Records Center
Mr. Richard Phelps, FSV, GA, Site Representative 1 (P Letter) General Atomic Company 16864 Weld County Road 19 1/2 Platteville, Colorado 30651
NRC Resident Site Inspector 1 (P Letter)

REPORT DATE:

February 3, 1983

REPORTABLE OCCURRENCE 83-003 ISSUE 0

OCCURRENCE DATE: January 5, 1983

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FORT ST. VRAIN NUCLEAR GENERATING STATION PUBLIC SERVICE COMPANY OF COLORADO 16805 WELD COUNTY ROAD 19 1/2 PLATTEVILLE, COLORADO 80651-9298

REPORT NO. 50-267/83-003/03-L-0

Final

#### IDENTIFICATION OF OCCURRENCE:

During the period January 5, 1983, through January 18, 1983, the reactor plant was operated in a degraded mode of LCO 4.2.10 on 14 separate occasions. These events are reportable per Fort St. Vrain Technical Specification AC 7.5.2(b)2.

#### EVENT DESCRIPTION:

At approximately 0030 hours on January 5, 1983, the concentration of total primary coolant oxidants (sum of water, carbon monoxide, and carbon dioxide) exceeded 10 parts per million (ppm) by volume. This impurity concentration increase occurred during a rise in power following a normal startup with the average core outlet temperature greater than 1200 degrees fahrenheit. The concentration of total primary coolant oxidants returned to less than the 10 ppm limit of LCO 4.2.10 on January 7, 1983, at 0345 hours as a result of primary coolant clearup through the helium purification system, but continued to fluctuate about 10 ppm until 0900 hours on January 18, 1983.

A total of 14 events occurred in which the 10 ppm limit was exceeded. Each event is described in Table 1 and illustrated in Figure 1.

#### CAUSE DESCRIPTION:

The reactor plant had been maintained in either a low power or shutdown condition for several months. During this period, several maintenance activities took place, including the isolation of a steam generator tube leak (Reportable Occurrence 82-049). As a result of this tube leak, feedwater entered the reactor vessel and became entrained in the primary coolant.

Following the steam generator tube maintenance, the primary coolant purification system was utilized to remove sufficient moisture to allow plant startup. However, due to the hygroscopic properties of the reactor core graphite and absorption in the vessel liner insulation, some of the moisture was retained.

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As the core temperature was increased, the retained moisture was released from the reactor vessel internal components and chemically reacted with the core graphite. This process caused the total oxidant concentration to fluctuate about 10 ppm until all moisture had been removed.

# CORRECTIVE ACTION:

In all 14 events, the total oxidant concentration was reduced below the LCO 4.2.10 limit by utilization of the helium purification system.

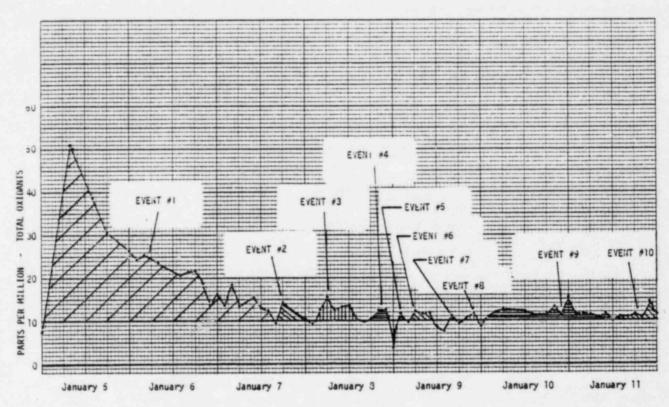
No further corrective actions are anticipated or required.

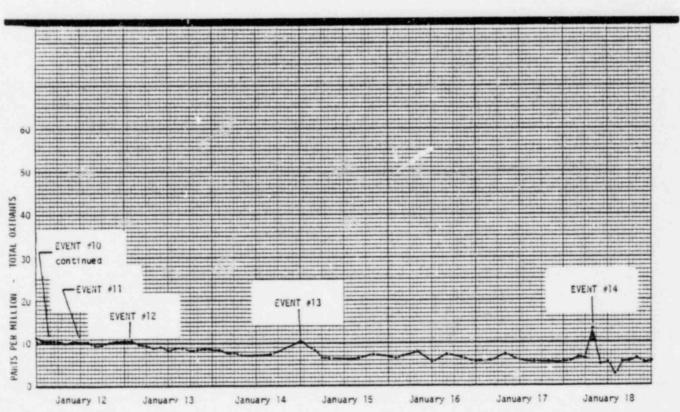
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### TABLE 1

Event No.	Start Date/Time	End Date/Time	Maximum PPM Attained
1	830105/0030	830107/0345	51.0
2	830107/0415	830108/0050	14.2
3	830108/0230	830108/1500	15.4
4	830108/1700	830108/2245	12.6
5	830109/0130	830109/0400	11.8
6	830109/0400	830109/1100	12.2
7	830109/1530	830109/1715	11.2
8	830109/1900	830109/2315	11.6
9	830110/0100	830111/1200	15.3
10	830111/1200	830112/0800	14.4
11	830112/0800	830112/1430	10.5
12	830112/1930	830113/0330	10.4
13	830114/2330	830115/0030	10.5
14	830118/0700	830118/0900	13.2

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