Public Service Company of Colorado
16805 ROAD 19½
PLATTEVILLE, COLORADO 80651

August 27, 1980
Fort St. Vrain
Unit No. 1
P-80286

Mr. Karl V. Seyfrit, Director
Nuclear Regulatory Commission
Region IV
Office of Inspection and Enforcement
611 Ryan Plaza Drive
Suite 1000
Arlington, Texas 76012

Reference: Facility Operating License
No. DPR-34

Docket No. 50-267

Dear Mr. Seyfrit:

Enclosed please find a copy of Reportable Occurrence Report No. 50-267/80-43, 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. 50-267/80-43.

Very truly yours,

Don Warembourg
Manager, Nuclear Production

DW/cls

Enclosure

cc: Director, MIPC

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S.1

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

REPORT NO. 50-267/80-43/03-L-0

Final

IDENTIFICATION OF OCCURRENCE:

On July 28 and 29, 1980, total primary coolant oxidants (the sum of water, carbon monoxide, and carbon dioxide) were greater than ten parts per million with average core outlet temperature above 1200°F. This constitutes operation in a degraded mode of LCO 4.2.10 and is reportable per Fort St. Vrain Technical Specification AC 7.5.2(b)2.

EVENT DESCRIPTION:

At approximately 1400 hours on July 28, 1980, an increase in reactor power was initiated and by 1600 hours the average core outlet temperature was greater than 1200°F. At this time, the primary coolant oxidants were less than 10 ppm, total; the plant had been operated for several days at a lower power level keeping average core outlet temperature less than 1200°F until the primary coolant oxidant level was less than 10 ppm.

Power was steadily increased until 1800 hours when total oxidants exceeded the 10 ppm limit of LCO 4.2.10. At this time, power was reduced to stop the increase of oxidants, but the average core outlet temperature was still greater than 1200°F. Total oxidants decreased until 2400 hours, when they equaled 10 ppm, and then started to increase again. This continued until 2100 hours on July 29 when a decision was made to reduce power and lower the average core outlet temperature to less than 1200°F. By 2200 hours, average core outlet temperature was less than 1200°F and compliance with LCO 4.2.10 re-established. (See Figure 1 for graph.)

CAUSE DESCRIPTION:

When power was increased on July 28, 1980, the higher power level and higher core outlet temperature resulted in oxidant and moisture release from the core graphite.

CAUSE
DESCRIPTION: (Cont'd)

This resulted in increasing carbon monoxide and carbon dioxide readings and even though moisture had decreased to zero, the total oxidants exceeded 10 ppm.

The residual moisture is being attributed to the cross tower leakage in the buffer helium dryer due to HV-21352 leaking during the early part of July and a trip of C-2103, 1C primary coolant circulator on July 11, 1980.

CORRECTIVE
ACTION:

Reactor power was decreased, which lowered average core outlet temperature to less than 1200°F. This ended operation in a degraded mode of LCO 4.2.10.

The buffer helium dryer valve HV-21352 was repaired to reduce the cross-tower leakage and resulting moisture ingress. Due to continuing deformation of the teflon disc, the valve disc was replaced with a brass disc.

No further corrective action is anticipated or required.

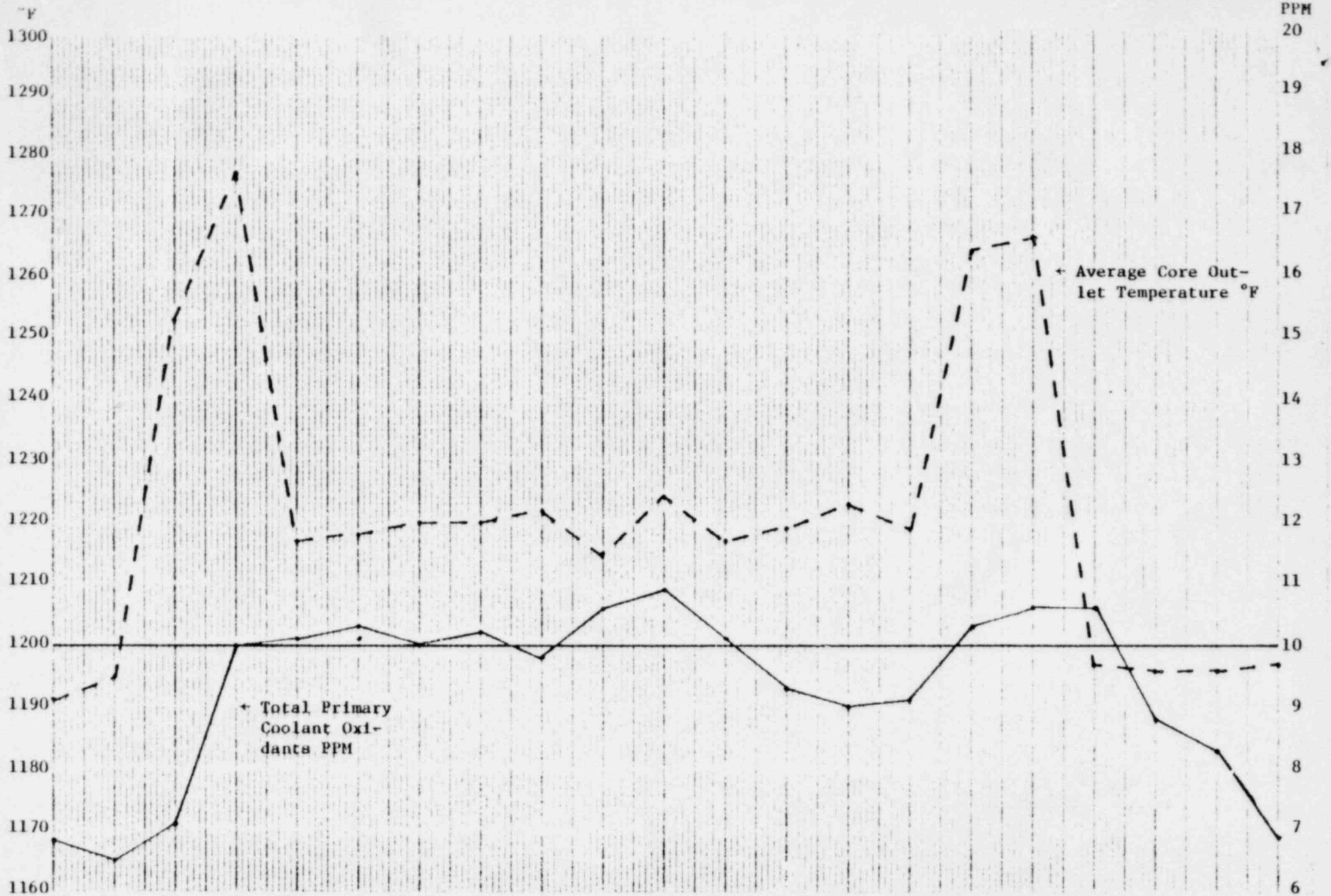

FIGURE 1

Prepared By: Asa B. Reed
Asa B. Reed
Technical Services Technician

Reviewed By: J. W. Gahm
J. W. Gahm
Technical Services Supervisor

Reviewed By: F M Mathie by DMW
Frank M. Mathie
Operations Manager

Approved By: Don Warembourg
Don Warembourg
Manager, Nuclear Production