



# Public Service Company of Colorado

September 1, 1981  
Fort St. Vrain  
Unit No. 1  
P-81216

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. 50-267/81-049, 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. 50-267/81-049.

Very truly yours,

*Don Warembourg*  
Don Warembourg  
Manager, Nuclear Production

DW/clh

Enclosure

cc: Director, MIPC



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OCCURRENCE REPORT DISTRIBUTION

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REPORT DATE: September 1, 1981

REPORTABLE OCCURRENCE 81-049

ISSUE 0

OCCURRENCE DATE: August 2, 1981

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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

REPORT NO. 50-267/81-049/03-L-0

Final

IDENTIFICATION OF  
OCCURRENCE:

During the period from August 2, 1981, to August 7, 1981, the plant was operated in a degraded mode of LCO 4.2.10 on three occasions. These events are reportable per Fort St. Vrain Technical Specification AC 7.5.2(b)2.

EVENT  
DESCRIPTION:

Event 1

See Figure 1. At 1600 hours on August 2, 1981, with the average core outlet temperature greater than 1200 degrees fahrenheit, the total primary coolant oxidants (the sum of carbon monoxide, carbon dioxide, and hydrogen) increased above 10 ppm. Operation continued under these conditions until 1700 hours on August 2, 1981. This event constitutes operation in a degraded mode of LCO 4.2.10.

Event 2

See Figure 1. At 2000 hours on August 2, 1981, with average core outlet temperature greater than 1200 degrees fahrenheit, the total primary coolant oxidants increased above 10 ppm. Operation continued under these conditions until 1500 hours on August 7, 1981. This event constitutes operation in a degraded mode of LCO 4.2.10.

Event 3

See Figure 1. At 2100 hours on August 7, 1981, with average core outlet temperature greater than 1200 degrees fahrenheit, the total primary coolant oxidants increased above 10 ppm. Operation continued under these conditions until 2300 hours on August 7, 1981. This event constitutes operation in a degraded mode of LCO 4.2.10.

CAUSE  
DESCRIPTION:

Event 1

See Figure 1. At 0300 hours on August 2, 1981, reactor power was increased from 32.9% power to 41% power with a corresponding increase in core outlet temperature from 1105 degrees fahrenheit to 1203 degrees fahrenheit. This was the first time core outlet temperature had been increased above 1200 degrees fahrenheit since the refueling shutdown. Total primary coolant oxidants increased to 10.1 ppm at 1600 hours then decreased to less than 10 ppm by 1700 hours.

Event 2

See Figure 1. At 2000 hours on August 2, 1981, reactor power had slowly been increased to 46% with core outlet temperature increasing to 1215 degrees fahrenheit. Primary coolant oxidants increased to 11.5 ppm due to the residual moisture in the core from the refueling shutdown. Power was increased to 53% by August 5, 1981, with several spikes in total oxidants' levels as the core continued to out-gas. Power was reduced at 0120 hours to approximately 46% due to turbine vibrations, then subsequently raised to 70%. Primary coolant oxidants increased as power was increased to a maximum of 19.5 ppm, then began a downward trend, and at 1500 hours on August 7, 1981, decreased to less than 10 ppm.

Event 3

See Figure 1. At 2100 hours on August 7, 1981, a small increase in carbon dioxide and carbon monoxide levels due to out-gassing caused total primary coolant oxidants to increase to 10.4 ppm. By 2300 hours, primary coolant oxidant levels had decreased to less than 10 ppm.

CORRECTIVE  
ACTION:

Corrective actions to the degraded mode operations outlined in this occurrence are as follows:

Event 1

Total primary coolant oxidant levels promptly decreased below 10 ppm, thus no corrective action was necessary.

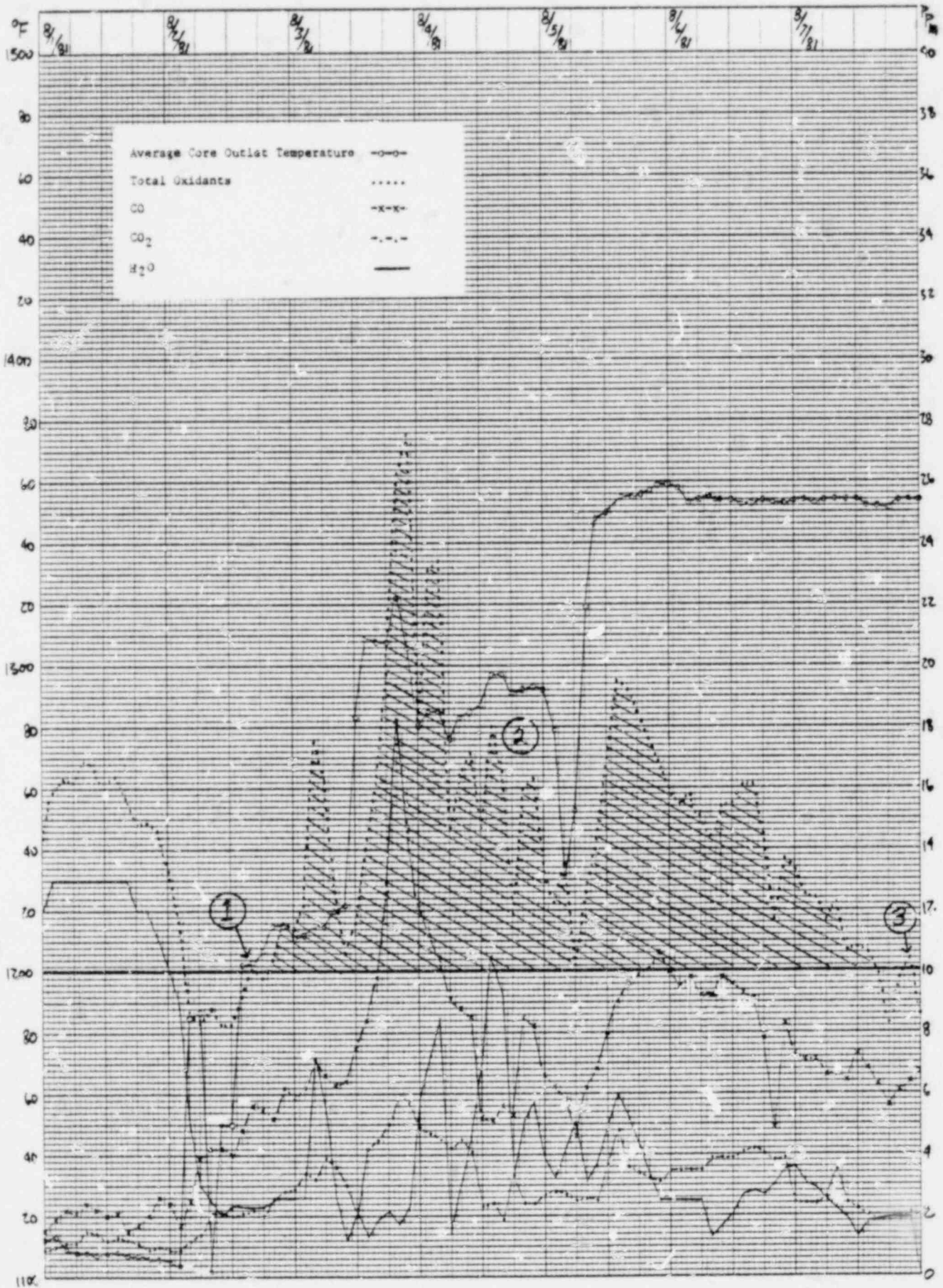
Event 2

The primary coolant purification system was utilized to remove the primary coolant oxidants and thereby bringing them below the LCO limit of 10 ppm.

Event 3

Total primary coolant oxidant levels promptly dropped below 10 ppm, thus no corrective action was necessary.

No further corrective action is anticipated or required.





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