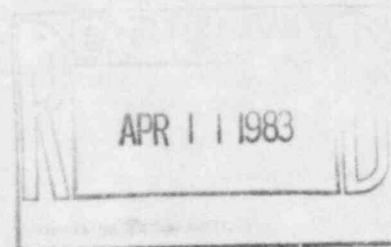




Public Service Company of Colorado

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

April 7, 1983
Fort St. Vrain
Unit No. 1
P-83138



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. 50-267/83-012, 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. 50-267/83-012.

Very truly yours,

Don Warembourg
Manager, Nuclear Production

DW/cl's

Enclosure

cc: Director, MIPC

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REPORT DATE: April 7, 1983

REPORTABLE OCCURRENCE 83-012

OCCURRENCE DATE: March 8, 1983

ISSUE 0

Page 1 of 4

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

REPORT NO. 50-267/83-012/03-L-0

Final

IDENTIFICATION OF
OCCURRENCE:

During the period March 8, 1983, through March 15, 1983, with the reactor operating and the average core outlet temperature between 725 and 1200 degrees fahrenheit, the reactor dewpoint exceeded the limits set forth by Figure 4.2.11-1 of LCO 4.2.11 on three separate occasions. Also during the same period, with the average core outlet temperature greater than 1200 degrees fahrenheit, the total primary coolant oxidants exceeded limits set forth by LCO 4.2.10 on three separate occasions. All events constitute operation in a degraded mode of either LCO 4.2.11 or LCO 4.2.10 and are reportable per Fort St. Vrain Technical Specification AC 7.5.2(b)2.

EVENT
DESCRIPTION:

Event #1

At 1800 hours on March 8, 1983, with the reactor operating at power and an average core outlet temperature near 970 degrees fahrenheit, the calculated reactor dewpoint entered the "non-acceptable" region of Figure 4.2.11-1 of LCO 4.2.11. This condition existed until 1200 hours on March 9, 1983, when the dewpoint returned to the "limited acceptable" region. The highest dewpoint reached was 51 degrees fahrenheit at an average core outlet temperature of 1030 degrees fahrenheit.

Event #2

At 2000 hours on March 9, 1983, with the reactor operating at power and an average core outlet temperature near 1065 degrees fahrenheit, the calculated reactor dewpoint again entered the "non-acceptable" region of Figure 4.2.11-1 of LCO 4.2.11. This condition existed until 1800 hours on March 10, 1983, when the dewpoint returned to the "limited acceptable" region. The highest dewpoint reached was 30 degree fahrenheit at an average core outlet temperature of 1071 degrees fahrenheit.

Event #3

At 1200 hours on March 11, 1983, with the reactor operating at power and the average core outlet temperature near 1004 degrees fahrenheit, the calculated reactor dewpoint again entered the "non-acceptable" region of Figure 4.2.11-1 of LCO 4.2.11. This condition existed until 1800 hours the same day when the dewpoint returned to the "limited acceptable" region. The highest dewpoint reached was 23 degrees fahrenheit at an average core outlet temperature of 1004 degrees fahrenheit.

Event #4

At 1115 hours on March 14, 1983, with the reactor operating at power, the average core outlet temperature increased beyond 1200 degrees fahrenheit with total primary coolant oxidants (sum of water, carbon monoxide, and carbon dioxide) above the 10 parts per million (ppm) limit of LCO 4.2.10. This condition continued until 1230 hours the same day when the average core outlet temperature dropped below the 1200 degrees fahrenheit limit of LCO 4.2.10. The highest oxidant concentration reached was 16.9 ppm.

Event #5

At 1515 hours on March 14, 1983, with the reactor operating at power, the average core outlet temperature again increased beyond 1200 degrees fahrenheit with total primary coolant oxidants above the 10 ppm limit of LCO 4.2.10. This condition continued until 1630 hours the same day when the average core outlet temperature dropped below the 1200 degree fahrenheit limit of LCO 4.2.10. The highest oxidant concentration reached was 13.2 ppm.

Event #6

At 1900 hours on March 14, 1983, with the reactor operating at power, the average core outlet temperature again increased beyond 1200 degrees fahrenheit with total primary coolant oxidants above the 10 ppm limit of LCO 4.2.10. At 1015 hours on March 15, 1983, total primary oxidants exceeded 100 ppm. This condition continued until 1945 hours on the same day when the average core outlet temperature dropped below the 1200 degree fahrenheit limit of LCO 4.2.10. The highest oxidant concentration reached was 289.8 ppm.

CAUSE
DESCRIPTION:

Moisture was introduced into the prestressed concrete reactor vessel as the result of a buffer helium system upset which occurred on February 15, 1983, following an electrical system upset. When subsequent startup operations commenced and primary coolant temperatures increased, the vaporization rate of the water which was present in the reactor vessel increased to a point where moisture was

being entrained in the primary coolant faster than the helium purification system could remove it.

CORRECTIVE
ACTION:

In the first three events, the helium purification system was used to reduce the reactor dewpoint to within the "limited acceptable" region of Figure 4.2.11-1 of LCO 4.2.11 for the appropriate average core outlet temperature.

In the last three events, the average core outlet temperature was reduced below 1200 degrees fahrenheit, making LCO 4.2.10 no longer applicable.

No further corrective actions are anticipated or required.

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Approved By: Don Warembourg
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Manager, Nuclear Production